

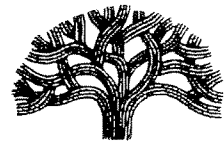
PUBLIC REVIEW DRAFT

UPTOWN MIXED USE PROJECT  
ENVIRONMENTAL IMPACT REPORT

STATE CLEARINGHOUSE NO. 200052070

LSA

September 2003



250 FRANK H. OGAWA PLAZA, SUITE 3330 • OAKLAND, CALIFORNIA 94612-2032

Community and Economic Development Agency  
Planning & Zoning Services Division

(510) 238-3941  
FAX (510) 238-6538  
TDD (510) 839-6451

**COMBINED NOTICE OF AVAILABILITY OF  
THE DRAFT ENVIRONMENTAL IMPACT REPORT AND  
NOTICE OF PUBLIC HEARINGS ON THE UPTOWN MIXED-USE PROJECT**

**PROJECT TITLE:** Uptown Mixed-Use Project

**CASE NO:** ER03-0007

**PROJECT SPONSOR:** Uptown Partners, LLC c/o Forest City Residential West

**PROJECT LOCATION:** The project site is located on a nine block, 15-acre site in the Uptown District of the City of Oakland, California. Blocks 1-6 are generally bounded by Thomas L. Berkley Way (20<sup>th</sup> Street) on the north, Telegraph Avenue on the east, 18<sup>th</sup> Street on the south, and San Pablo Avenue on the west. The Fox Theater is not a part of the project site. Blocks 7 and 8 are located on the north side of Thomas L. Berkley Way (20<sup>th</sup> Street); Block 7 is west of Telegraph Avenue and Block 8 is east of Telegraph Avenue. Block 9 is located on the southeastern corner of Telegraph Avenue and 22<sup>nd</sup> Street.

**BRIEF DESCRIPTION OF PROJECT:** The proposed project entails the construction of approximately 1000 apartments and 270 condominiums; 1,050 student beds/faculty units; 43,000 square feet of commercial space; 1,959 parking spaces; and a 25,000 square foot public park.

**ENVIRONMENTAL REVIEW:** Based on the preliminary project description, it was determined that the project may have significant environmental impacts. A focused **Draft Environmental Impact Report (DEIR)** was then prepared for the above project, under the requirements of the California Environmental Quality Act (CEQA), pursuant to Public Resources Code Section 21159.25.

The DEIR analyzes potentially significant impacts in the following environmental categories: land use plans and policies; population, employment, and housing; hydrology and flooding; transportation, circulation, and parking; air quality; noise; hazardous materials; infrastructure and utilities; paleontological and cultural resources; visual and aesthetic resources/shade and shadow analysis; and wind. Copies of this document are available for review or distribution to interested parties at no charge at the Community and Economic Development Agency, Planning Division, 250 Frank H. Ogawa Plaza, Suite 3330, Oakland, CA 94612, Monday through Friday, 8:30 a.m. to 5:00 p.m.

**PUBLIC HEARINGS:** The Oakland Landmark Preservation Advisory Board will conduct a public hearing on the project on October 6, 2003, at 4:00 p.m. in Hearing Room 1, City Hall, One City Hall Plaza. The Oakland City Planning Commission will conduct a public hearing on the DEIR and the zoning permits for the project on October 15, 2003, at 6:30 p.m. in Hearing Room 1, City Hall, One City Hall Plaza. Public comments are invited on the DEIR and the zoning permits for the project. Comments on the DEIR should focus on the sufficiency of the DEIR in discussing possible impacts on the environment, ways in which adverse effects might be minimized, and alternatives to the project in light of the EIR's purpose to provide useful and accurate information about such factors.

Comments may be made at the public hearing described above, or in writing. There is no fee for commenting, and all comments received will be considered by the City prior to finalizing the EIR and making a decision on the project. Written comments on the DEIR and the zoning permits should be sent to the attention of Lynn Warner, Planner IV, City of Oakland Community and Economic Development Agency, Planning Division, 250 Frank H. Ogawa Plaza, Suite 3330, Oakland, CA 94612, no later than 4:00 p.m. on Monday, November 3, 2003. If you challenge the environmental document or any discretionary permits in court you may be limited to raising only those issues raised at the City Planning Commission public hearing described above, or in written correspondence received by the Community and Economic Development Agency on or prior to November 3, 2003. The Planning Commission will consider certification of a Final Environmental Impact Report (FEIR) for the project and render a decision on the zoning permits for the project at a later meeting date to be determined. For further information, please call Lynn Warner, at (510) 238-3941.

Claudia Cappio  
Director of Planning and Zoning  
Date: September 19, 2003



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UPTOWN MIXED USE PROJECT  
ENVIRONMENTAL IMPACT REPORT

STATE CLEARINGHOUSE NO. 200052070

Submitted to the:

City of Oakland  
Community and Economic Development Agency  
250 Frank H. Ogawa Plaza  
Suite 3330  
Oakland, CA 94612

Prepared by:

LSA Associates, Inc.  
2215 Fifth Street  
Berkeley, CA 94710  
(510) 540-7331

LSA

September 2003

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## **I. INTRODUCTION**

### **A. PURPOSE OF THE EIR**

In compliance with the California Environmental Quality Act (CEQA), this Draft Environmental Impact Report (EIR) describes the environmental consequences of the proposed Uptown Mixed Use Project (Project). This EIR is designed to inform City staff, the Planning Commission, Redevelopment Agency, City Council, other responsible and interested agencies, and the general public of the proposed Project and the potential environmental consequences of Project approval. The City of Oakland (City) is the lead agency for environmental review of the proposed Project.

### **B. PROPOSED PROJECT**

The Project site, which consists of a nine-block area, is located within the Uptown District of Oakland, as shown in Figure I-1. The proposed Project includes the following components: approximately 1,300 residential units; 1,050 student beds and faculty units; and 43,000 feet of commercial space. Associated Project components include a 25,000 square-foot public park; 1,959 parking spaces; and the development of one public street within the Project site. The additional public street is intended to shorten block lengths and provide enhanced access within the Project site. Implementation of the proposed Project would result in the development of a mixed-use neighborhood in the Uptown District. Please refer to Chapter III, Project Description, for more details.

### **C. EIR SCOPE**

This EIR is a focused EIR prepared pursuant to California Environmental Quality Act (CEQA)/Public Resources Code Section 21159.25 (commonly referred to as Assembly Bill 436). The following discussion: 1) defines a focused EIR and discusses the relevant provisions of Section 21159.25; 2) describes the approach the EIR's authors have used in preparing a focused EIR that is consistent with the provisions of Section 21159.25; and 3) summarizes the environmental topics that are addressed in the EIR.

#### **1. Focused EIR**

This EIR is a focused EIR as authorized by State of California Public Resources Code Section 21159.25 (commonly referred to as Assembly Bill 436) and authorized by Oakland City Council Resolution No. 76896 (included in Appendix A). Pursuant to Section 21159.25, focused EIRs may be prepared for projects located in specified areas of downtown Oakland (including the Uptown area) where the proposed project consists of multiple-family residential development, or residential and retail mixed-use development where less than 25 percent of the total floor area of the project will be used for retail uses. In such an EIR, no discussion is required of alternatives to the project, cumulative impacts of the project or growth inducing impacts of the project. Assembly Bill 436, which allows the use of focused EIRs in specific areas of downtown Oakland, was approved by the

Figure I-1: Location Map

8x11 B&W

California State Legislature in September 2001, signed by the Governor in October 2001 and is now codified in the Public Resources Code, in Section 21159.25. Subsequently, the City Council adopted Resolution No. 76896 which authorizes the use of focused EIRs for four target areas within downtown Oakland where housing is encouraged. Resolution No. 76896, as adopted by the City Council, states that the Council authorizes the Planning Commission, at its sole discretion, to conduct a public hearing in the intent to use AB 436 (Public Resources Code Section 21159.25) for a specific project. The Planning Commission held such a hearing on March 19, 2003, and adopted a Notice of Intent to Use AB 436 for the Uptown Project. Table I-1 lists the criteria for use of a focused EIR and summarizes applicable findings adopted by the Planning Commission.

The EIR, which was prepared and certified for the Land Use and Transportation Element (LUTE) of the Oakland General Plan, is used as one of the bases for this environmental review. Cumulative impacts and growth-inducing impacts in downtown Oakland have been analyzed in the General Plan LUTE EIR, and repeatedly in numerous EIRs completed for projects in the downtown area. The analysis included in Chapter IV.B, Population, Employment and Housing, of this EIR provides a confirmation that the proposed Uptown Project falls within the City's employment and population projections to the year 2025. Similarly, the LUTE EIR contained an analysis of alternatives and, pursuant to Public Resources Code Section 21159.25, no further consideration of alternatives is required. Both the LUTE EIR and this EIR identify mitigation measures to reduce or eliminate potentially significant environmental impacts. The LUTE EIR, which was certified by the Oakland City Council in 1998, is hereby incorporated by reference into this EIR.<sup>1</sup> In addition, to ensure a comprehensive analysis, this focused EIR includes a cumulative analysis.

## 2. Scope of the Focused EIR

The City circulated a Notice of Preparation (NOP) notifying responsible agencies and interested parties that an EIR would be prepared using Section 21159.25 and indicating the environmental topics that were anticipated to be addressed in this EIR. The NOP and Initial Study were published on February 26, 2003, and mailed to public agencies, organizations, and individuals likely to be interested in the potential impacts of the Project. Comments on the NOP were received by the City and considered during the preparation of the EIR. A copy of the NOP and each comment letter received is provided in Appendix A of this EIR. Comments were received from the following agencies and organizations: 1) Regional Water Quality Control Board; 2) City of Alameda; 3) Friends of the Oakland Fox; 4) State of California Department of Transportation (Caltrans); 5) Bay Area Air Quality Management District; 6) Oakland Heritage Alliance; 7) Alameda County Congestion Management Agency; and 8) East Bay Municipal Utility District. Comments were received from the following individuals: 1) Christopher Pederson; and 2) Joyce Roy.

The following topics are addressed as separate sections in Chapter IV of this EIR:

- Land Use
- Population, Employment and Housing
- Hydrology and Water Quality
- Transportation, Circulation and Parking

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<sup>1</sup> The LUTE EIR is available for review at 250 Frank Ogawa Plaza, Suite 3330, Oakland, CA 94612. A summary of the LUTE EIR impacts and mitigation measures is provided in Appendix A of this EIR.

**Table I-1: Public Resources Code Section 21159.25 Criteria**

Criteria	Applicability to Uptown Project
The project consists of multiple-family residential development, or residential and retail mixed-use development where less than 25 percent of the total floor area of the project will be used as retail space.	The Project consists of mixed-use development where less than 25 percent of the total floor area of the Project will be used for retail. Per the submitted application, 43,000 square feet of the Project will be built as retail space while over 1 million square feet of residential space will be built for the +1,300 residential units plus the student housing. This amount of residential space excludes parking structures. Therefore, less than 25 percent of the total floor area will be used for retail space.
The City has an average population density of at least 5,000 persons per square mile.	Based on the 2000 U.S. Census and the City of Oakland statistical profile, the average population density of Oakland is approximately 7,425 persons per square mile which exceeds 5,000 persons per square mile.
The project is consistent with the general plan, any applicable specific plan and community plan, and zoning ordinance, including any variance that is properly granted pursuant to that zoning ordinance, an environmental impact report was prepared for the general plan, and the application for the project is deemed complete pursuant to Section 65943 of the Government Code within three years of the date this section is effective.	The Project is consistent with numerous objectives and policies of the General Plan. The Project supports the vision and goals for the Downtown Showcase District, particularly by promoting the role of Downtown as a mixture of vibrant and unique districts, increasing both the daytime and nighttime population of Downtown through new housing opportunities and encouraging housing that is located within walking distance of BART and other transit facilities. The General Plan contains numerous policies that pertain to the residential and retail development in the Uptown area. City staff made a determination that the proposed Project is consistent with numerous policies of the land use and transportation element General Plan as part of their March 19, 2003 staff report. Analysis for consistency with the other elements of the General Plan is included in Section IV.A, Land Use, of this EIR. Additionally, as part of Resolution No. 76896, the City Council adopted a finding that the Oakland General Plan, Zoning Ordinance and related policies are consistent with the principals that encourage compact development. An environmental impact report was previously prepared and certified for the General Plan Land Use and Transportation Element, and the application for environmental review for the Uptown Project was deemed complete on March 12, 2003.
The lead agency cannot make the finding described in subdivision (c) of Section 21157.1, a negative declaration or mitigated negative declaration cannot be prepared pursuant to Section 21080, 21157.5, or 21158, and Section 21166 does not apply.	The City of Oakland as the lead agency has determined that an environmental impact report shall be prepared for the proposed Project because potentially significant environmental impacts resulting from the proposed Project have been identified and it is uncertain whether there are feasible mitigation measures to reduce these impacts to a less than significant level.
The project meets one or both of the following conditions: (A) The parcel on which the project is to be developed is surrounded by immediately contiguous urban development. (B) The parcel on which the project is to be developed is, or has been previously, developed with urban uses.	The site of the proposed Project is surrounded by urban development that is immediately contiguous to the Project site.
The density of the project is at least 40 units per net acre.	The Project proposes 1,300 dwelling units plus 1,050 students beds/faculty units. Even excluding the student housing the Project proposes over 73 units per net acre.
The parcel on which the project is to be developed is within one-half mile of an existing rail transit station.	The 19 <sup>th</sup> Street BART station is located approximately one block (800 feet) from the nearest part of the Project site, and

Table I-1 *continued*

Criteria	Applicability to Uptown Project
	approximately four blocks (2,200 feet) from the farthest part of the Project site. Hence, all portions of the Project site are located within a ½-mile of an existing rail transit station.
The project can be adequately served by existing utilities and municipal services, and there will be adequate capacity for infrastructure, utilities, and services to serve other projects approved and proposed in the service area.	Existing utilities and municipal services adequately serve the Project site. Additionally, there is adequate capacity for infrastructure, utilities and services to serve other projects approved and proposed in the service area based on the adopted General Plan and EIR that was certified for the General Plan. (Refer to General Plan Land Use and Transportation Element, Volume 2, Supporting Information.)
The project does not include a single level building that exceeds 100,000 square feet.	The Project contains multiple-story buildings and does not include a single-level building that exceeds 100,000 square feet based on the current Project description.
The project is located in one of the following central business district housing target areas: (A) The Valdez cluster, which is ... (B) The Uptown cluster, which is bounded on the west by Castro Street, on the south by 14th Street from Castro Street to Jefferson Street and 16th Street and Broadway from 16th Street to 22nd Street, and on the north by 22nd Street. (C) The 11th Street cluster, which is ... (D) The Old Oakland cluster, which is ....	The site of the proposed Project is located within the Uptown cluster target area.

Source: City of Oakland staff, 2003.

- Air Quality
- Noise
- Hazards and Hazardous Materials
- Utilities and Infrastructure
- Historic Architectural, Archaeological and Paleontological Resources
- Aesthetic Resources
- Wind
- Shade and Shadow

Potential adverse environmental impacts related to the topics listed below were determined to be less-than-significant on the basis of environmental evaluation in the Initial Study. No comments that were received on the NOP provided any information that would affect the analysis and conclusions in the Initial Study with respect to these topics.

- Agricultural Resources
- Biological Resources
- Geology and Soils
- Mineral Resources

- Public Services
- Recreation

#### **D. REPORT ORGANIZATION**

This EIR is organized into the following chapters:

- *Chapter I – Introduction:* Discusses the overall EIR purpose; provides a summary of the proposed action and environmental review process; identifies potentially significant issues and concerns; and summarizes the organization of the EIR.
- *Chapter II – Summary:* Provides a summary of the impacts that would result from implementation of the proposed Project, and describes mitigation measures recommended to reduce or avoid significant impacts.
- *Chapter III – Project Description:* Provides a description of the Project site, site development history, Project objectives, required approval process, and details of the Project itself.
- *Chapter IV – Setting, Impacts and Mitigation Measures:* Describes the following for each environmental technical topic: existing conditions (setting); potential environmental impacts and their level of significance; and mitigation measures recommended to address identified impacts. Potential adverse impacts are identified by levels of significance, as follows: less-than-significant impact (LTS), significant impact (S), and significant and unavoidable impact (SU). The significance of each impact is categorized before and after implementation of any recommended mitigation measure(s).
- *Chapter V – Report Preparation:* Identifies staff involved in preparation of the EIR, references used, and persons and organizations contacted.

## **II. SUMMARY**

### **A. PROJECT UNDER REVIEW**

This Draft EIR has been prepared to evaluate the environmental impacts of the Uptown Mixed Use Project (proposed Project). A more detailed description of the proposed Project is provided in Chapter III, Project Description.

### **B. SUMMARY OF IMPACTS AND MITIGATION MEASURES**

This summary provides an overview of the analysis contained in Chapter IV, Setting, Impacts, and Mitigation Measures. CEQA requires a summary to include discussion of: 1) potential areas of controversy; 2) significant impacts of the Project; and 3) significant unavoidable impacts of the Project. Because this EIR was prepared pursuant to AB 436, alternatives to the proposed Project were not addressed in this EIR and are not included in this summary.

#### **1. Potential Areas of Controversy**

The potential areas of controversy surrounding the Uptown Mixed Use Project that were identified as part of the EIR scoping and Notice of Preparation (NOP) process and are evaluated in Chapter IV of this EIR are listed below:

- land use compatibility
- removal of affordable housing
- contaminated groundwater
- stormwater
- transit
- traffic on local roads and highways
- air pollution
- noise exposure
- soil contamination
- water and wastewater infrastructure capacity
- demolition of historic buildings
- relation of the Project to surrounding historic neighborhoods
- visual impacts
- wind intensification
- new shadows

#### **2. Significant and Less-Than-Significant Impacts**

Under CEQA, a significant impact on the environment is defined as: a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project



including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.<sup>1</sup>

As discussed in Chapter IV of this EIR, implementation of the proposed Project has the potential to result in adverse environmental impacts in several areas. Impacts associated with the following environmental topics would be significant without the implementation of mitigation measures, but would be reduced to a less-than-significant level if the mitigation measures recommended in this EIR are implemented:

- *Hydrology and Water Quality*
- *Transportation, Circulation and Parking* (except for the intersection of Frontage Road/West Grand Avenue)
- *Air Quality* (construction period)
- *Noise*
- *Hazards and Hazardous Materials*
- *Historic Architectural, Archeological and Paleontological Resources* (for all resources except the Great Western Power Company Building)
- *Aesthetic Resources*
- *Wind*

Impacts associated with the following environmental topics would be considered less than significant and would not require any mitigation measures based on the identified criteria of significance:

- *Land Use*
- *Population, Employment and Housing*
- *Infrastructure and Utilities*
- *Shade and Shadow*

### **3. Significant Unavoidable Impacts**

As discussed in Chapter IV of this EIR, the proposed Project would result in significant unavoidable impacts in the following topical areas:

- *Transportation* (intersection of Frontage Road/West Grand Avenue)
- *Air Quality* (operation period impacts related to regional emissions)
- *Historic Architectural Resources* (Great Western Power Company Building)

## **C. SUMMARY TABLE**

Information in Table II-1, Summary of Impacts and Mitigation Measures, has been organized to correspond with the environmental issues discussed in Chapter IV. The table is arranged in four

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<sup>1</sup> CEQA Sections 21060.5 and 21068.

columns: 1) impacts; 2) level of significance prior to mitigation measures; 3) mitigation measures; and 4) level of significance after mitigation. Levels of significance are categorized as follows: SU = Significant and Unavoidable; S = Significant; and LTS = Less Than Significant. For a complete description of potential impacts and recommended mitigation measures, please refer to the specific discussions in Chapter IV.

**Table II-1: Summary of Impacts and Mitigation Measures**

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<b>A. LAND USE</b>			
<i>The Project would not result in any significant impacts related to land use.</i>			
<b>B. POPULATION, EMPLOYMENT AND HOUSING</b>			
<i>The Project would not result in any significant impacts related to population, employment, and housing.</i>			
<b>C. HYDROLOGY AND WATER QUALITY</b>			
<p><u>HYD-1</u>: Construction activities for the Project could result in degradation of water quality in Lake Merritt and the Bay by reducing the quality of storm water runoff.</p>	<p>S</p>	<p><u>HYD-1</u>: The applicant shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) designed to reduce potential impacts to surface water quality through the construction and life of the Project. The SWPPP would act as the overall program document to provide measures to mitigate significant water quality impacts associated with implementation of the Project. The SWPPP shall include specific and detailed Best Management Practices (BMPs) required to mitigate significant construction-related pollutants. These controls shall include practices to minimize the contact of construction materials, equipment, and maintenance supplies (e.g., fuels, lubricants, paints, solvents, adhesives) with storm water. The SWPPP shall specify properly designed centralized storage areas that keep these materials out of the rain.</p> <p>An important component of the storm water quality protection effort will be the education of the site supervisors and workers. To educate on-site personnel and maintain awareness of the importance of storm water quality protection, site supervisors shall conduct regular tailgate meetings to discuss pollution prevention. The frequency of the meetings and required personnel attendance list shall be specified in the SWPPP.</p> <p>The SWPPP shall specify a monitoring program to be implemented by the construction site supervisor, and must include both dry and wet weather inspections. City of Oakland personnel shall conduct regular inspections to ensure compliance with the SWPPP.</p>	<p>LTS</p>

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<u>HYD-1</u> <i>continued</i>		<p>BMPs to reduce erosion of exposed soil may include, but are not limited to: soil stabilization controls, watering for dust control, perimeter silt fences, placement of hay bales, and sediment basins. The potential for erosion is generally increased when grading occurs during the rainy season, as disturbed soil can be exposed to rainfall and storm runoff. If grading must be conducted during the rainy season, the primary BMPs selected shall focus on erosion control, that is, keeping sediment on the site. End-of-pipe sediment control measures (e.g., basins and traps) shall be used only as secondary measures. Access to and egress from the construction site shall be carefully controlled to minimize off-site tracking of sediment (this BMP is particularly important since much of the earthwork will involve loading trucks for off-site transport of soil excavated for the below-ground parking structures). Vehicle and equipment wash down facilities shall be designed to be accessible and functional both during dry and wet conditions.</p> <p>The SWPPP shall be reviewed for completeness by the City of Oakland, Public Works Agency, Environmental Services Division prior to approval of grading plans.</p>	
<p><u>HYD-2</u>: Post-construction operation of the Project could result in degradation of water quality in Lake Merritt due to a net decrease in the quality of storm water runoff.</p>	S	<p><u>HYD-2</u>: The applicant shall comply with the requirements of the 2003 Alameda County <i>Stormwater Management Plan</i> and/or the RWQCB Revised Order 01-024 (NPDES Permit No. CAS029718), as appropriate, based on the timing of construction. As applicable, the applicant shall incorporate measures to mitigate potential degradation of runoff water quality from all portions of the completed development, including roof and sidewalk runoff. The final design team for the Project should include all applicable measures from <i>Start at the Source</i>, Design Guidance Manual for Stormwater Quality Protection, which may include, but not be limited to pervious pavements, hybrid parking lots, vegetated swales, biofilters, roof drainage to landscaped areas, minimization of directly connected impervious surfaces, and infiltration islands.</p> <p>The Project compliance with requirements for post-construction stormwater controls shall be reviewed by the City of Oakland, Public Works Agency, Environmental Services Division prior to approval of grading plans.</p>	LTS

Table II-1 *continued*

<b>Environmental Impacts</b>	<b>Level of Significance Without Mitigation</b>	<b>Mitigation Measures</b>	<b>Level of Significance With Mitigation</b>
<p><u>HYD-3</u>: Dewatering effluent may contain contaminants and if not properly managed could cause impacts to the environment.</p>	<p>S</p>	<p><u>HYD-3</u>: The SWPPP shall include requirements for the proper management of dewatering effluent as necessary to mitigate significant impacts to the environment. The Hazards section of this DEIR (Mitigation Measure HAZ-1b) addresses and mitigates potential impacts associated with health and safety impacts to site workers and the public associated with the dewatering effluent.</p> <p>At minimum, all dewatering effluent will be contained prior to discharge to allow the sediment to settle out, and filtered, if necessary, to ensure that only clear water is discharged to the storm or sanitary sewer system. Alternatively, effluent can be hauled off-site by tanker truck for disposal. Based on the historical land uses at the Project site and groundwater sampling of the existing network of monitoring wells, it is possible that groundwater underlying each of the parcels has been impacted by chemical releases. All dewatering effluent will be analyzed by a State-certified laboratory for the suspected pollutants (at minimum, petroleum hydrocarbons, solvents, and metals) prior to discharge. Based on the results of the analytical testing and the concentrations of pollutants identified, if any, the applicant will dispose of the water in one (or more) of the following ways:</p> <ul style="list-style-type: none"> <li>a) Discharge the water to the storm drain under permit from the RWQCB. It is unlikely that the RWQCB would allow discharge of any untreated dewatering effluent that contained detectable concentrations of chemical pollutants and that for these types of discharges, alternative disposal options may be required;</li> <li>b) Discharge the water to the sanitary sewer system under permit from the East Bay Municipal Utilities District;</li> <li>c) Haul the water to a licensed off-site disposal facility for treatment and disposal under appropriate manifest.</li> </ul> <p>The Project proponent shall demonstrate to the City of Oakland, Planning and Development Department that appropriate permits have been acquired prior to discharge of any dewatering effluent.</p>	<p>LTS</p>

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<b>D. TRANSPORTATION, CIRCULATION AND PARKING</b>			
<p><u>TRANS-1:</u> The addition of Project traffic to the Year 2010 Baseline condition would result in a significant adverse impact at the intersection of San Pablo Avenue/Thomas L. Berkley Way (20<sup>th</sup> Street). The intersection was identified as operating at LOS C in the Year 2010 No Project Condition in the PM peak hour. The addition of Project traffic would result in the intersection operating at LOS F in the PM peak hour.</p>	S	<p><u>TRANS-1:</u> Optimization of the signal timing at the intersection of San Pablo and Thomas L. Berkley Way (20<sup>th</sup> Street) would improve function to a LOS D in the PM peak hour. This intersection functions as an integrated signal system with other intersections in the downtown area. To mitigate the Project’s impact at this location and others, the City shall prepare a signal optimization and coordination plan for the area bounded by San Pablo Avenue, Grand Avenue, Telegraph Avenue, and 17<sup>th</sup> Street prior to Project occupancy. The plan shall address the timing and equipment requirements, as necessary for all of the signalized intersections located within this area. The Project applicant shall fund its fair share cost of the preparation of this plan and the implementation of the signal timing program. Implementation of the signal optimization program may also involve the purchase and installation of interconnection hardware (i.e. modems, microwave antennas, etc).</p> <p>Given that the Project sponsor is responsible for only a portion of this mitigation measure, implementation of this set of improvements will be funded fully by one or a combination of the following means:</p> <ol style="list-style-type: none"> <li>1. The Project sponsor shall fully fund the costs of the signalization improvements and be reimbursed through other fair-share contributions as future projects occur that fall within the City’s thresholds of significance.</li> <li>2. The City, at their sole discretion, shall establish a Traffic Improvement Program and concurrent Traffic Impact Fee Ordinance to fund the mitigation measure.</li> <li>3. The Redevelopment Agency, at their sole discretion, shall contribute funds to the costs of implementation.</li> </ol>	LTS
<p><u>TRANS-2:</u> The addition of Project traffic to the Year 2010 Baseline condition would result in a significant adverse impact at the intersection of Telegraph Avenue/19<sup>th</sup> Street. The intersection was identified as operating at LOS D in the Year 2010 No Project Condition in the AM and PM peak hours. The addition of Project traffic would result in the intersection operating at LOS F in both the AM and PM peak hours.</p>	S	<p><u>TRANS-2:</u> Optimization of the signal timing at the intersection of Telegraph and 19th Street would improve the function to LOS C in both the AM or PM peak hours. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level.</p>	LTS

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<p><b>TRANS-3:</b> In the 2010 No Project and Plus Project scenarios, the Frontage Road/West Grand Avenue intersection would operate at LOS F in the PM peak hour. The Project would cause the total intersection delay for the critical movements to increase by two or more seconds and result in a significant impact.</p>	<p>S</p>	<p><b>TRANS-3:</b> Widen the intersection to add a second exclusive left turn lane in the eastbound direction and an exclusive right turn lane in the westbound direction. The intersection would operate at LOS D in the PM peak hour with these improvements.</p> <p>The intersection of Frontage Road and West Grand Avenue is located on an elevated structure which is within the jurisdiction of Caltrans. The proposed mitigation measures would require the widening of the existing elevated structure and modification of the traffic signal. The second exclusive left turn lane in the eastbound direction and the exclusive right turn lane in the westbound direction should each be 300 feet in length with a 90-foot taper. Widening of the existing structure would require additional support columns and the acquisition of right of way underneath the structure. In addition, the connector from Interstate 880 to Interstate 80 structure exists above this intersection. Columns supporting this elevated connector may have to be relocated to widen the Frontage Road/West Grand Avenue intersection. At this time, the implementation of this mitigation measure would not be economically feasible. Because this intersection is located outside of the City of Oakland’s jurisdiction and because it is not economically feasible, it is significant and unavoidable.</p>	<p>SU</p>
<p><b>TRANS-4:</b> In the PM peak hour, the San Pablo/27<sup>th</sup> Street intersection would operate at LOS E in the Year 2025 No Project and Year 2025 Plus Project scenarios. The Project would cause the total intersection average vehicle delay to increase by six or more seconds.</p>	<p>S</p>	<p><b>TRANS-4:</b> Optimization of the signal timing at the intersection of San Pablo and 27th Street would improve function to a LOS D in the PM peak hour. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level.</p>	<p>LTS</p>
<p><b>TRANS-5:</b> The addition of Project traffic to the Year 2025 Baseline condition would result in a significant adverse impact at the intersection of San Pablo Avenue/West Grand Avenue. The intersection was identified as operating at LOS F in the Year 2025 No Project Condition in the PM peak hour. The addition of Project traffic would cause the total intersection average vehicle delay to increase by two or more seconds.</p>	<p>S</p>	<p><b>TRANS-5:</b> Optimization of the signal timing at the intersection of San Pablo and West Grand Avenue would improve the function to a LOS E in the PM peak hour. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level.</p>	<p>LTS</p>

Table II-1 *continued*

<b>Environmental Impacts</b>	<b>Level of Significance Without Mitigation</b>	<b>Mitigation Measures</b>	<b>Level of Significance With Mitigation</b>
<u>TRANS-6:</u> The addition of Project traffic to the Year 2025 Baseline condition would result in a significant adverse impact at the intersection of San Pablo Avenue/Thomas L. Berkley Way (20 <sup>th</sup> Street). The intersection was identified as operating at LOS C in the Year 2025 No Project Condition in the PM peak hour. The addition of Project traffic would result in the intersection operating at LOS F.	S	<u>TRANS-6:</u> Optimization the signal timing at the intersection of San Pablo and Thomas L. Berkley Way (20 <sup>th</sup> Street). By optimizing the signal timing splits, the intersection would improve the function to a LOS D in the PM peak hour. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level.	LTS
<u>TRANS-7:</u> The addition of Project traffic to the Year 2025 Baseline condition would result in a significant adverse impact at the intersection of Telegraph Avenue/West Grand Avenue. The intersection was identified as operating at LOS E in the Year 2025 No Project Condition in the AM peak hour. The addition of Project traffic would cause an increase in the average delay for critical movements to increase by more than six seconds in the AM peak hour.	S	<u>TRANS-7:</u> Optimization of the signal timing and changing the cycle length to 65 seconds at this intersection would mitigate the delay that would result from the proposed Project. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level.	LTS
<u>TRANS-8:</u> With the Project, the Telegraph Avenue/Thomas L. Berkley Way (20 <sup>th</sup> Street) intersection LOS would degrade from LOS E to LOS F in the AM peak hour. In the PM peak hour, the Telegraph Avenue/Thomas L. Berkley Way (20 <sup>th</sup> Street) intersection would operate at LOS F in the Year 2025 No Project and Year 2025 Plus Project scenarios.	S	<u>TRANS-8:</u> Optimization of the signal timing in the AM peak hour and changing the cycle length to 70 seconds at this intersection would mitigate the Projects increase in delay. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level.	LTS
<u>TRANS-9:</u> The Telegraph Avenue/William Street intersection would operate at LOS F in the PM peak hour in the Year 2025 No Project and Year 2025 Plus Project scenarios. The Project would cause the total intersection average delay to increase by two or more seconds. In addition, the Project would increase average delay for the critical movements by four or more seconds.	S	<u>TRANS-9:</u> Changing the cycle length to 80 seconds and optimizing signal timing would improve the function of this intersection to LOS C in the PM peak hour. By optimizing the signal timing splits and changing the signal cycle, the Projects increase in delay would be mitigated. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level.	LTS



Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<p><u>TRANS-10</u> The addition of Project traffic to the Year 2025 Baseline condition would result in a significant adverse impact at the Telegraph Avenue/19<sup>th</sup> Street intersection. With the Project, the intersection LOS would degrade from LOS E to LOS F in the AM peak hour. In the PM peak hour, the Telegraph Avenue/19th Street intersection would operate at LOS F in the Year 2025 No Project and Year 2025 Plus Project scenarios. In addition, the Project would increase average delay for the critical movements by four or more seconds in the PM peak hour. Both of these changes are considered to be significant adverse impacts based on City standards.</p>	<p>S</p>	<p><u>TRANS-10:</u> The Project shall provide for the following two improvements.</p> <ul style="list-style-type: none"> <li>• Optimize the signal timing at the intersection of Telegraph and 19th Street. Since this intersection also functions as part of an integrated signal system in downtown Oakland, Mitigation Measure TRANS-1B shall also be implemented.</li> <li>• Restripe the westbound 19th Street approach to provide two exclusive through lanes and an exclusive right turn lane.</li> </ul> <p>With these improvements, the intersection would operate at LOS C in the AM peak hour and LOS E in the PM peak hour.</p> <p>The restriping of the westbound 19th Street approach to the intersection to provide two exclusive through lanes and an exclusive right turn lane would require the elimination of six metered parking spaces on the northern side of 19th Street between Telegraph and Broadway. With the existing roadway width available the two through lanes would each be 11 feet wide and the right turn lane would be 10 feet wide, which would satisfy City standards of 10-foot lanes. Metered parking would remain on the southern side of 19th Street.</p>	<p>LTS</p>
<p><u>TRANS-11</u> The Frontage Road/West Grand Avenue intersection would operate at LOS F in the AM and PM peak hours in Year 2025 No Project and Year 2025 plus Project conditions. The Project would cause the total intersection average vehicle delay to increase by two or more seconds in the AM and PM peak hours. In addition, the Project would increase in average delay for critical movements by four or more seconds.</p>	<p>S</p>	<p><u>TRANS-11:</u> Widen the eastbound approach to accommodate two left turn lanes, two through lanes, and a right turn lane. Widen the southbound approach would need to accommodate a right turn lane, a left turn lane, and a shared through/right turn lane. In addition, the northbound approach should be converted from a left turn lane, a through lane, and a shared through/right turn lane to a left turn lane, a shared through/right turn lane, and a right turn lane. With the proposed improvements, the intersection would operate at LOS C in the AM peak hour and LOS D in the PM peak hour.</p>	<p>SU</p>

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
TRANS-11 <i>continued</i>		The intersection of Frontage Road and West Grand Avenue is located on an elevated structure which is within the jurisdiction of Caltrans. The proposed mitigation measures would require the expansion of the existing elevated structure and modification of the traffic signal. Widening of the existing structure would require additional support columns and the acquisition of right of way underneath the structure. In addition, the connector from Interstate 880 to Interstate 80 structure exists above this intersection. Columns supporting this elevated connector may have to be relocated to pursue the widening of the Frontage Road/West Grand Avenue intersection. The implementation of this mitigation measure would not be economically feasible. Because this intersection is located outside of the City of Oakland's jurisdiction and because it is not economically feasible, it is significant and unavoidable.	
<u>TRANS-12:</u> The addition of Project traffic at the Mandela Parkway/West Grand Avenue intersection would cause the service level to degrade from LOS D in the Year 2025 No Project Condition to LOS E in the Year 2025 with Project Condition during the PM peak hour.	S	<u>TRANS-12:</u> Changing the cycle length to 110 seconds, providing protected left turn phases on the eastbound and westbound approaches, and optimizing the signal timing would improve the function of this intersection to a LOS D in the PM peak hour. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level.	LTS
<u>TRANS-13:</u> The Harrison/Grand Avenue intersection was found to operate at LOS E in the Year 2025 No Project and Year 2025 with Project Conditions during the PM peak hour. The Project would cause an increase in the average delay for critical movements by more than six seconds in the PM peak hour.	S	<u>TRANS-13:</u> Changing the cycle length to 110 seconds and optimizing the signal timing splits would mitigate the Project's impact. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level.	LTS
<u>TRANS-14:</u> In the PM peak hour, the Castro Street/17th Street /I-980 Off-Ramp intersection would operate at LOS E in the Year 2025 No Project and Year 2025 Plus Project scenarios. The Project would cause an increase in the average delay for the critical movements of six or more seconds.	S	<u>TRANS-14:</u> Optimization of the intersection's signal timing at this intersection would improve the function of this intersection to operate at LOS D in the PM peak hour. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level.	LTS

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<b>E. AIR QUALITY</b>			
<p><u>AIR-1</u>: Activities associated with demolition, site preparation and construction would generate short-term emissions of criteria pollutants, including suspended and inhalable particulate matter and equipment exhaust emissions.</p>	<p>S</p>	<p><u>AIR-1</u>: Implementation of the following mitigation measures would reduce this impact to a less-than-significant level.</p> <ul style="list-style-type: none"> <li>• The basic and enhanced control measures listed in Table IV.E-9 shall be implemented during construction of the proposed Project.</li> <li>• Any temporary haul roads to the soil stockpile area shall be routed away from existing neighboring land uses. Any temporary haul roads shall be surfaced with gravel and regularly watered to control dust or treated with an appropriate dust suppressant.</li> <li>• Water sprays shall be utilized to control dust when material is being added or removed from the stockpile. When the stockpile is undisturbed for more than 1 week, the storage pile shall be treated with a dust suppressant or crusting agent to eliminate wind-blown dust generation.</li> <li>• All neighboring properties located within 500 feet of property lines shall be provided with the name and phone number of a designated construction dust control coordinator who will respond to complaints within 24 hours by suspending dust-producing activities or providing additional personnel or equipment for dust control as deemed necessary. The phone number of the BAAQMD pollution complaints contact shall also be provided. The dust control coordinator shall be on-call during construction hours. The coordinator shall keep a log of complaints received and remedial actions taken in response. This log shall be made available to City staff upon its request.</li> </ul> <p>The above mitigation measures include all feasible measures for construction emissions identified by the BAAQMD. According to the District's threshold of significance for construction impacts, implementation of the measures would reduce construction impacts of the proposed Project to a less-than-significant level.</p>	<p>LTS</p>

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<p><u>AIR-2</u>: Development of the Uptown Project would result in increased regional emissions of criteria air pollutants exceeding BAAQMD Thresholds.</p>	<p>S</p>	<p><u>AIR-2</u>: To the extent permitted by law, the Uptown Project shall be required to implement Transportation Control Measures (TCMs) as recommended by the BAAQMD. However, the City of Oakland will implement as feasible on the basis that this Project is an infill mixed-used development project that in and of itself supports many Smart Growth Principals. Measures that the City may require the Project to implement, or that are already proposed as part of the Project, include the following:</p> <ul style="list-style-type: none"> <li>• <i>Transit Measures</i>: (i) Construct transit facilities such as bus turnouts/bus bulbs, benches, shelters, etc. (Effectiveness 0.5 percent - 2 percent of all trips, BAAQMD <i>CEQA Guidelines</i>); (ii) Design and locate buildings to facilitate transit access (e.g., locate building entrances near transit stops, eliminate building setbacks, etc.) (Effectiveness 0.1 percent - 0.5 percent of all trips, BAAQMD <i>CEQA Guidelines</i>).</li> <li>• <i>Services Measures</i>: (i) Provide on-site shops and services for employees, such as cafeteria, bank/ATM, dry cleaners, convenience market, etc. (Effectiveness 0.5 percent - 5 percent of work trips, BAAQMD <i>CEQA Guidelines</i>); (ii) Provide on-site child care, or contribute to off-site childcare within walking distance. (Effectiveness 0.1 percent - 1 percent of work trips, BAAQMD <i>CEQA Guidelines</i>).</li> <li>• <i>Bicycle and Pedestrian Measures</i>: (i) Provide secure, weather-protected bicycle parking for employees (Effectiveness 0.5 percent - 2 percent of work trips, BAAQMD <i>CEQA Guidelines</i>); (ii) Provide safe, direct access for bicyclists to adjacent bicycle routes (Effectiveness 0.5 percent - 2 percent of work trips, BAAQMD <i>CEQA Guidelines</i>); (iii) Provide showers and lockers for employees bicycling or walking to work (Effectiveness 0.5 percent - 2 percent of work trips, BAAQMD <i>CEQA Guidelines</i>); (iv) Provide secure short-term bicycle parking for retail customers or non-commute trips (Effectiveness 1 percent - 2 percent of non-work trips, BAAQMD <i>CEQA Guidelines</i>); (v) Provide direct, safe, attractive pedestrian access from Planning Area to transit stops and adjacent development (Effectiveness 0.5 percent - 1.5 percent of all trips, BAAQMD <i>CEQA Guidelines</i>).</li> </ul>	<p>SU</p>

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<u>AIR-2</u> <i>continued</i>		Implementation of the measures detailed above would help minimize this impact, but not reduce it to a less-than-significant level. Therefore, Impact AIR-2 will remain significant and unavoidable.	
<b>F. NOISE</b>			
<p><b>NOISE-1:</b> Noise levels from construction activities may range up to 91 dBA L<sub>max</sub> at the nearest land uses to the Project site for limited time periods during the duration of construction for certain activities such as pile driving or the use of other heavy equipment..</p>	S	<p><b>NOISE-1a:</b> Standard construction activities shall be limited to between 7:00 a.m. and 7:00 p.m. Monday through Friday. No construction activities shall be allowed on weekends until after the buildings are enclosed without prior authorization of the Building Services and Planning Divisions of the Community and Economic Development Agency.</p> <p><b>NOISE-1b:</b> To reduce daytime noise impacts due to construction, to the maximum feasible extent, the City shall require the applicant to develop a site-specific noise reduction program, subject to city review and approval, which includes the following measures:</p> <ul style="list-style-type: none"> <li>• Signs shall be posted at the construction site that include permitted construction days and hours, a day and evening contact number for the job site, and a day and evening contact number for the City in the event of problems;</li> <li>• An on-site complaint and enforcement manager shall be posted to respond to and track complaints;</li> <li>• A pre-construction meeting shall be held with the job inspectors and the general contractor/on-site Project manager to confirm that noise mitigation and practices are completed prior to the issuance of a building permit (including construction hours, neighborhood notification, posted signs, etc.);</li> <li>• Equipment and trucks used for Project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds, wherever feasible);</li> </ul>	LTS

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<p><u>NOISE-1</u> <i>continued</i></p>		<ul style="list-style-type: none"> <li>• Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for Project construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed-air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed-air exhaust shall be used; this muffler can lower noise levels where feasible, which could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever feasible; and</li> <li>• Stationary noise sources shall be located as far from sensitive receptors as possible, and they shall be muffled and enclosed within temporary sheds, or insulation barriers or other measures shall be incorporated to the extent feasible.</li> </ul>	
		<p><u>NOISE-1c:</u> If pile-driving occurs as part of the Project, it shall be limited to between 8:00 a.m. and 4:00 p.m., Monday through Friday, with no pile driving permitted between 12:30 and 1:30 p.m. No pile driving shall be allowed on Saturdays, Sundays, or holidays.</p>	
		<p><u>NOISE-1d:</u> To further mitigate potential pile-driving and/or other extreme noise-generating construction impacts, a set of site-specific noise attenuation measures shall be completed under the supervision of a qualified acoustical consultant. This plan shall be submitted for review and approval by the City to ensure that maximum feasible noise attenuation is achieved. These attenuation measures shall include as many of the following control strategies as feasible and shall be implemented prior to any required pile-driving activities:</p> <ul style="list-style-type: none"> <li>• Implement “quiet” pile-driving technology, where feasible, in consideration of geotechnical and structural requirements and conditions;</li> <li>• Erect temporary plywood noise barriers around the entire construction site;</li> <li>• Utilize noise control blankets on the building structure as it is erected to reduce noise emission from the site;</li> </ul>	

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<p><u>NOISE-1</u> <i>continued</i></p>		<ul style="list-style-type: none"> <li>• Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings; and</li> <li>• Monitor the effectiveness of noise attenuation measures by taking noise measurements.</li> <li>• A third-party peer review, paid for by the applicant, shall be required to assist the City in evaluating the feasibility and effectiveness of the noise reduction plan submitted by the applicant.</li> <li>• A special inspection deposit is required to ensure compliance with the noise reduction plan. The amount of deposit shall be determined by the Building Official and the deposit shall be submitted by the project sponsor concurrent with submittal of the noise reduction plan.</li> </ul>	
		<p><u>NOISE-1e:</u> A process with the following components shall be established for responding to and tracking complaints pertaining to pile-driving construction noise:</p> <ul style="list-style-type: none"> <li>• A procedure for notifying City Building Division staff and Oakland Police Department;</li> <li>• A list of telephone numbers (during regular construction hours and off-hours);</li> <li>• A plan for posting signs on-site pertaining to complaint procedures and who to notify in the event of a problem;</li> <li>• Designation of a construction complaint manager for the Project; and</li> <li>• Notification of neighbors within 300 feet of the Project construction area at least 30 days in advance of pile-driving activities.</li> </ul> <p>Construction period impacts would still occur with implementation of the measures detailed above. However, because they would be short-term in duration, the City considers this a less-than-significant impact.</p>	

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<p><u>NOISE-2</u>: Local traffic will generate long-term noise levels exceeding <i>Normally Acceptable</i> and <i>Conditionally Acceptable</i> noise levels on the Project site.</p>	<p>S</p>	<p><u>NOISE-2</u>: Once the project design is finalized and the location of specific uses are determined, the project applicant shall have an acoustical analysis prepared that details noise reduction requirements and noise insulation features necessary to achieve acceptable interior and exterior noise levels. The requirements shall be sufficient to achieve a minimum of 45 dBA for all interior building spaces and shall achieve either <i>Normally Acceptable</i> or <i>Conditionally Acceptable</i> ranges for exterior uses according to the applicable land use category as set forth in Table IV.F-4.</p> <p>Measures to reduce the interior noise levels may include:</p> <ul style="list-style-type: none"> <li>• To meet the City’s 45 dBA CNEL interior noise standard, building facade upgrades will be required for building located along Telegraph Avenue. All windows facing Telegraph Avenue must have a sound transmission class (STC) of 31 or greater.</li> <li>• All of the proposed buildings on the project site shall be designed and constructed with ventilation systems, to achieve the indoor fresh-air ventilation requirements specified in Chapter 35 of the Uniform Building Code, to achieve the 45 dBA CNEL interior noise standard.</li> </ul> <p>Measures to reduce the exterior noise levels may include:</p> <ul style="list-style-type: none"> <li>• The inclusion of plexiglass enclosures for outdoor patio and balcony areas at a height of 5 feet (i.e., to shield balconies and outdoor patio areas) would provide 5dBA or more in noise reduction for outdoor use areas.</li> </ul> <p>Implementation of the above mitigation measure would reduce this impact to a less-than-significant level by achieving, at a minimum, <i>Conditionally Acceptable</i> noise levels.</p>	<p>LTS</p>
<p><u>NOISE-3</u>: Long-term stationary noise sources on the Project site could potentially generate noise levels in excess of the thresholds set in Section 17.120.050 of the City’s Planning Code.</p>	<p>S</p>	<p><u>NOISE-3</u>: The following measures are required for the operations of the proposed Project:</p> <ul style="list-style-type: none"> <li>• All on-site stationary noise sources shall comply with the standards listed in Section 17.120.050 of the City’s Planning Code; and</li> <li>• Loading docks or loading areas and noise-generating equipment associated with the retail uses will be located as far as practical from all existing and planned residential properties.</li> </ul>	<p>LTS</p>



Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
NOISE-3 <i>continued</i>		Implementation of the above mitigation measure would reduce the impact to below a level of significance.	
<b>G. HAZARDS AND HAZARDOUS MATERIALS</b>			
<p><u>HAZ-1:</u> Development of the Project could expose construction workers and/or the general public to hazardous materials from contaminated soil and groundwater during construction activities.</p>	S	<p><u>HAZ-1a:</u> Prior to issuing any grading, demolition or building permits for the proposed Project affecting Project site Blocks 3 through 9, an environmental investigation shall be conducted at the site by a qualified environmental professional. The environmental investigation shall implement appropriate sampling recommendations presented in previously conducted Phase I site assessment(s) prepared for the Project site, as summarized in Table IV.G-3, in order to adequately characterize subsurface conditions of the site. Environmental investigation workplans shall be submitted to the City of Oakland and RWQCB for review and approval. Information from the environmental investigation shall be used to develop and implement site-specific health and safety plans for construction workers and best management practices (e.g., dust control, storm water runoff control, etc.) appropriate to protect the general public.</p> <p><u>HAZ-1b:</u> Prior to issuing any grading, demolition, or building permit for the proposed Project, a site-specific Health and Safety Plan (HSP) shall be prepared by a qualified industrial hygienist. At a minimum, the HSP shall summarize information collected in environmental investigations for the Project site, including soil and groundwater quality data; establish soil and groundwater mitigation and control specifications for grading and construction activities, including health and safety provisions for monitoring exposure to construction workers; provide procedures to be undertaken in the event that previously unreported contamination is discovered; incorporate construction safety measures for excavation activities; establish procedures for the safe storage and use of hazardous materials at the Project site, if necessary; provide emergency response procedures; and designate personnel responsible for implementation of the Plan. The HSP shall be designed to prevent potential exposures to construction workers above established OSHA Permissible Exposure Limits. The Plan shall be submitted to the City of Oakland for review and approval.</p>	LTS

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<u>HAZ-1</u> <i>continued</i>		<u>HAZ-1c:</u> Prior to issuing any grading, demolition, or building permit for the proposed Project, a Soil and Groundwater Management Plan (Plan) shall be prepared. The Plan shall include procedures for managing soils and groundwater removed from the site to ensure that any excavated soils and/or dewatered groundwater with contaminants are stored, managed, and disposed of safely, in accordance with applicable regulations. The Plan will incorporate notification and dust mitigation requirements of the BAAQMD (including Title 17, CCR Section 93105). Dewatering procedures will incorporate regulatory requirements for groundwater discharge to storm or sanitary sewers, as outlined in Mitigation Measure HYD-3. The Plan shall be submitted to the City of Oakland and RWQCB for review and approval and shall be implemented throughout all phases of Project development.	
<u>HAZ-2:</u> Development of blocks with soil and/or groundwater contamination could expose future residents and workers to potentially hazardous concentrations of contaminants.	S	<p><u>HAZ-2a:</u> Covenants, codes, and restrictions for the proposed Project shall strictly prohibit the use of groundwater at the Project site for drinking, irrigation, or industrial purposes. Any dewatering activities required at the Project site following construction activities shall be required to be carried out under the Soil and Groundwater Management Plan prepared for the Project (Mitigation Measure HAZ-1c).</p> <p><u>HAZ-2b:</u> Prior to issuing any permits for construction within the Project site, a Human Health Risk Assessment (HHRA) shall be conducted and/or updated by a qualified environmental professional. This HHRA shall employ methodology from the <i>City of Oakland Urban Land Redevelopment: Guidance Document</i> for the Oakland Risk Based Corrective Action (RBCA) program to evaluate potential health risks from petroleum hydrocarbons, metals, solvents, and other volatile organic compounds in soils and groundwater. Depending on the findings of the HHRA, recommendations may be made for administrative or engineering controls to minimize public exposure to hazardous materials, if warranted. These controls could potentially include vapor barriers for building foundations, encapsulation of the site with building foundations and paved parking surfaces to prevent exposure to soils, and implementation of an Operations and Maintenance Plan to insure prescribed controls are implemented and maintained. The controls shall ensure that any potential added health</p>	LTS

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<u>HAZ-2</u> <i>continued</i>		risks to future site users are reduced to a cumulative risk of less than $1 \times 10^{-5}$ (a calculated risk of 1 in 100,000 persons exposed) for carcinogens and a cumulative hazard index of 1.0. The HHRA shall be submitted to the City of Oakland and RWQCB for review and approval.	
<u>HAZ-3</u> : Improper use or transport of hazardous materials during construction activities could result in releases affecting construction workers and the general public.	S	<u>HAZ-3</u> : The implementation of Mitigation Measure HAZ-1b would require a Site Safety Plan/Soil and Groundwater Management Plan (Plan). The Plan will establish procedures for the safe storage and use of hazardous materials at the Project site, if necessary; provide emergency response procedures; and designate personnel responsible for implementation of the Plan. No other mitigation is required.	LTS
<u>HAZ-4</u> : Demolition of buildings that contain lead-based paint and asbestos-containing building materials would release airborne lead and asbestos particles, which may adversely affect construction workers and the public.	S	<u>HAZ-4</u> : All asbestos-containing materials shall be abated by a certified asbestos abatement contractor in accordance with construction worker health and safety regulations and the regulations and notification requirements of the Bay Area Air Quality Management District (BAAQMD) (29 CFR 1926.1101; 40 CFR 61 and 152; Title 8 CCR Section 1529; BAAQMD Regulation 11, Rule 2). The removal and disposal of lead-based paint within the Project site shall be completed in accordance with federal and State construction worker health and safety regulations (29 CFR, Part 1926.62; Title 8, CCR Section 532.1; CDHS Training, Certification and Workpractices Rule).	LTS
<u>HAZ-5</u> : Development of the Project could result in hazardous emissions or the handling of hazardous materials, substances, or waste within ¼-mile of a proposed school.	S	<u>HAZ-5</u> : Implementation of existing regulatory requirements for school siting, and preparation and implementation of a Site Safety Plan/Soil and Groundwater Management Plan (Mitigation Measure HAZ-1b) and lead and asbestos regulations (Mitigation Measure HAZ-4) would reduce this impact to a less-than-significant level. No additional mitigation is required.	LTS
<b>H. UTILITIES AND INFRASTRUCTURE</b>			
<i>The Project would not result in any significant impacts related to infrastructure and utilities.</i>			

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<b>I. HISTORIC ARCHITECTURAL, ARCHAEOLOGICAL AND PALEONTOLOGICAL RESOURCES</b>			
<p><u>HIST-1:</u> Ground-disturbing activities for the construction of subterranean parking structures, building foundations, and underground sewer and utility facilities could adversely impact paleontological resources.</p>	S	<p><u>HIST-1a:</u> A paleontological resources monitoring plan shall be developed in consultation with a qualified paleontologist prior to Project-related ground-disturbing activities. This monitoring plan shall incorporate the findings of Project-specific geotechnical investigations to identify the location and depth of deposits that have a high likelihood of containing paleontological resources and that may be encountered by Project activities. This information will indicate the depth of overlying non-sensitive soils (i.e., artificial fill and prior disturbance) within the Project area to allow a more effective determination of where paleontological monitoring is appropriate.</p> <p><u>HIST-1b:</u> A qualified paleontologist shall monitor all ground-disturbing activity that occurs at depths within the Project area determined to be sensitive in the paleontological monitoring plan. Monitoring shall continue until, in the paleontologist's opinion, significant, nonrenewable paleontological resources are unlikely to occur.</p> <p>In the event that paleontological resources are encountered during excavation, all work within 50 feet of the find shall be redirected until the monitor has evaluated the situation and provided recommendations for the protection of, or mitigation of adverse effects to, significant paleontological resources. Mitigation for impacts to significant paleontological resources shall include thorough documentation of the find and its immediate context to recover scientifically-valuable information. Upon completion of paleontological monitoring, a monitoring report shall be prepared. This scope of this report shall be approved by the City, but at a minimum the report will document the methods, results, and recommendations of the monitoring paleontologist.</p>	LTS
<p><u>HIST-2:</u> Ground-disturbing activities for the construction of subterranean parking structures, building foundations, and underground sewer and utility facilities could adversely impact cultural resources .</p>	S	<p><u>HIST-2:</u> A qualified archaeologist shall monitor all ground-disturbing activities in the Project area until, in the archaeologist's opinion, a depth has been reached at which potentially-significant archaeological deposits are unlikely to occur.</p>	LTS

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<u>HIST-2</u> <i>continued</i>		<p>Should an archaeological deposit be encountered by Project activities, the monitor shall be empowered to halt construction in the vicinity of the find. Construction activities shall be redirected and a qualified archaeologist shall: 1) evaluate the archaeological deposit to determine if it meets the CEQA definition of a historical or archaeological resource; and 2) make recommendations about the treatment of the deposit, as warranted. If the deposit does not meet the CEQA definition of a historical or archaeological resource, then no further study or protection of the deposit is necessary. If the deposit does meet the CEQA definition of a historical or archaeological resource, then it shall be avoided by Project activities. If avoidance is not feasible, then effects to the deposit shall be mitigated through a data recovery strategy developed by the evaluating archaeologist. Mitigation of impacts to significant archaeological deposits through data recovery will recover scientifically-valuable information. This mitigation may include, but is not limited to, a thorough recording of the resource on DPR Form 523 records, or archaeological excavation. If archaeological excavation is the only feasible method of data recovery, then such excavation shall conform to the provisions of CEQA Guidelines §15126.4(b)(3)(C).</p> <p>Upon completion of such archaeological monitoring, evaluation, or data recovery mitigation, the archaeologist shall prepare a report documenting the methods, results, and recommendations of the investigation, and submit this report to the NWIC.</p>	
<p><u>HIST-3</u>: Ground-disturbing activities for the construction of subterranean parking structures, building foundations, and underground sewer and utility facilities could disturb human remains, including those interred outside of formal cemeteries.</p>	S	<p><u>HIST-3</u>: Should human remains be encountered by Project activities, construction activities shall be halted and the County Coroner notified immediately. If the human remains are of Native American origin, the Coroner must notify the Native American Heritage Commission (NAHC) within 24 hours of this identification, and a qualified archaeologist should be contacted to evaluate the situation. The NAHC will identify a Native American Most Likely Descendent (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. The archaeologist shall recover scientifically-valuable information, as appropriate and in accordance with the recommendations of the MLD.</p>	LTS

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<u>HIST-4a</u> <i>continued</i>		Upon completion of such analysis, as appropriate, the archaeologist shall prepare a report documenting the methods and results of the investigation. This report shall be submitted to the NWIC.	
<u>HIST-4a (Variant 1: Demolition; Variant 2: Partial Demolition)</u> : The proposed Project may result in full or partial demolition of the Great Western Power Company Building, which is a local historical resource.	S	<p><u>HIST-4a (Variant 1 and 2)</u>: The following measures shall be implemented to preserve information about the resource for further study:</p> <ul style="list-style-type: none"> <li>• Record the Great Western Power Company Building in accordance with the procedures of the Historical American Buildings Survey (HABS) through measured drawings, written histories, and large-format photographs;</li> <li>• Prepare a history of the Great Western Power Company Building that incorporates oral history, documentary research, and architectural information;</li> <li>• Prepare a brochure, regarding the building's historical association with one of three major early 20th century northern California power companies, to be made available at local libraries and museums;</li> <li>• If full demolition of the building occurs, salvage architectural elements from the building, including hardware, doors, paneling, fixtures, and equipment, and incorporate these elements into new construction; and</li> <li>• Curate all materials, notes, and reports at the OHR, and submit copies to the NWIC.</li> </ul> <p>Even with extensive documentation, however, the demolition of the building or portions of the building would result in the loss of a historic resource that is associated with significant historical events and is an example of outstanding design and function. Therefore, the demolition or partial demolition of the building would remain a significant and unavoidable impact.</p>	SU

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<p><u>HIST-4b (Variant 3: Preservation)</u>: Modification and reuse of the Great Western Power Company Building could adversely affect a historical resource.</p>	<p>S</p>	<p><u>HIST-4b (Variant 3)</u>: Any modifications to the exterior of the building that may be proposed as part of its preservation and reuse shall be developed in consultation with staff at the Planning Department and a qualified historic preservation architect to determine an appropriate treatment strategy. In the event that this measure is determined feasible and is implemented, Mitigation Measure HIST-5 shall also be implemented to ensure that development on the adjacent properties does not adversely impact the building's integrity.</p>	<p>SU</p>
<p><u>HIST-5 (Variant 3)</u>: Site clearance within the Project area adjacent to the Great Western Power Company Building could adversely impact a historical resource.</p>	<p>S</p>	<p><u>HIST-5 (Variant 3)</u>: The following two-part mitigation measure shall be implemented:</p> <ul style="list-style-type: none"> <li>The building's urban setting on the portion of Block 7 fronting Thomas L. Berkley Way (20<sup>th</sup> Street) shall be documented prior to Project implementation. At a minimum, this documentation shall include panoramic streetscape photographs and an interpretive display that shall provide an overview of the former urban context and describe how this context contributed to the building's significance. This information shall be presented in an on-site display at the preserved Great Western Power Company Building to enable a viewer to easily associate the former setting with the existing building (i.e., panoramic streetscape photographs to show the building within the former street frontage). Upon completion of this documentation, a copy of all notes, photographs, and analysis shall be archived at the OHR and submitted to the NWIC.</li> </ul>	<p>LTS</p>

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
HIST-5 <i>continued</i>		<ul style="list-style-type: none"> <li>The City shall ensure that the designs for new adjacent buildings are evaluated with respect to minimizing setting impacts on the historic resource. Project buildings adjacent to the Great Western Power Company Building shall be designed in a manner that minimizes inappropriate differences in mass and scale, if feasible. For example, designs could call for adjacent buildings to step-up to the height of the tallest Project element north of 20<sup>th</sup> Street, thereby reducing a potentially abrupt contrast between new buildings and the two-story Great Western Power Company Building. If the designs for the adjacent buildings follow the Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for the Preservation of Historic Buildings, then the Project will have a less-than-significant impact, pursuant to CEQA §15064.5(b)(3).</li> </ul> <p>However, if it is not feasible to minimize material impairment of the resource, then the impact would remain significant and unavoidable.</p>	SU
HIST-6: Site clearance within the Project area could adversely impact four Potential Designated Historic Properties (PDHPs) in the Project area.	LTS	HIST-6: If the relocation of the PDHPs proposed for demolition on the Project site is not feasible, the buildings shall be documented at a level of detail commensurate with their local importance. At a minimum, this effort shall include photo-documentation, as well as local oral history about the past uses and occupants of the buildings. This documentation shall be planned in consultation with OCHS in order to: 1) identify those qualities that support and justify the property’s local significance; and 2) efficiently record and disseminate such information in a way that most effectively offsets the loss of such buildings. At the completion of this documentation, all notes, photographs, and analysis shall be archived at the OHR, and a complete copy shall be submitted to the NWIC.	LTS
HIST-7: Project demolition and construction could adversely impact the setting of the 19 <sup>th</sup> and San Pablo Commercial District.	S	HIST-7: No mitigation measure is necessary to address the less-than-significant impact.	LTS



Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<p><u>HIST-8</u>: Project demolition and construction could result in a significant cumulative impact on the 19<sup>th</sup> and San Pablo Commercial District.</p>	<p>S</p>	<p><u>HIST-8</u>: The City shall inform the applicant for the Thomas L. Berkley Square Project of the potential cumulative impact prior to the implementation of the Uptown Mixed-Use Project. The City shall consult with both Project applicants to establish a fair division of responsibility to fund mitigation measures to preserve information about the 19<sup>th</sup> and San Pablo Commercial District for future study. These mitigation measures shall include the following:</p> <ul style="list-style-type: none"> <li>• Record the 19<sup>th</sup> and San Pablo Commercial District in accordance with the procedures of HABS through measured drawings, written histories, and large-format photographs;</li> <li>• Prepare a history of the 19<sup>th</sup> and San Pablo Commercial District that incorporates oral history, documentary research, and architectural information;</li> <li>• Prepare a brochure, regarding the district’s historical association with turn-of-the-century Oakland commerce, to be made available at local libraries and museums;</li> <li>• Salvage architectural elements from the buildings proposed for demolition, including hardware, doors, paneling, fixtures, and equipment, and incorporate these elements into new construction; and</li> <li>• Curate all materials, notes, and reports at the OHR, and submit copies to the NWIC.</li> </ul> <p>Even with extensive documentation, however, a cumulative impact will result from the demolition of 66 percent of the 19<sup>th</sup> and San Pablo Commercial District’s contributing buildings. This loss of contributing buildings will materially affect the district’s ability to convey its historical significance, which will result in a significant, unavoidable cumulative impact.</p>	<p>SU</p>
<p><u>HIST-9</u>: Site clearance within the Project area could adversely impact historical buildings resources inventoried by the OCHS.</p>	<p>LTS</p>	<p><u>HIST-9</u>: No mitigation measure is necessary to address the less-than-significant impact.</p>	<p>LTS</p>
<p><u>HIST-10</u>: The construction of Project buildings could adversely impact historic architectural resources adjacent to the Project area.</p>	<p>LTS</p>	<p><u>HIST-10</u>: No mitigation measure is necessary to address the less-than-significant impact.</p>	<p>LTS</p>
<p><u>HIST-11</u>: The proposed Project could impact the setting of the Fox Oakland Theater.</p>	<p>LTS</p>	<p><u>HIST-11</u>: No mitigation measure is necessary to address this less-than-significant impact.</p>	<p>LTS</p>

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<u>HIST-12</u> : The proposed Project could impact the operations of the Fox Oakland Theater and, therefore, indirectly impact its architectural qualities.	LTS	<u>HIST-12</u> : No mitigation measures is necessary for this less-than-significant impact.	LTS
<u>HIST-13</u> : The enhancement of streetscape features and lighting on streets fronting the Project area may impact historical resources, including elements of the Uptown Shopping/ Entertainment Historic District and the Fox Oakland Theater.	S	<u>HIST-13</u> : Prior to Project initiation, the plan for the enhancement of street features and lighting on Telegraph Avenue shall be reviewed by planning staff to ensure that it conforms to the <i>Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Preservation of Historic Buildings</i> . Conformance with these guidelines will ensure that these improvements are compatible with nearby historical resources, and will mitigate potential Project effects to less-than-significant levels.	LTS
<b>J. AESTHETIC RESOURCES</b>			
<u>AES-1</u> : The proposed Project would alter the intrinsic architectural character of the Project site and its surroundings.	S	<u>AES-1</u> : The following measures shall be incorporated into the final Project design: <ul style="list-style-type: none"> <li>• Create streetscape vitality and enhance the pedestrian experience through detailed treatment of building facades, including entryways, fenestration, and signage, and through the use of carefully chosen building materials, texture, and color.</li> <li>• Design of building facades shall include sufficient articulation and detail to avoid the appearance of blank walls or box-like forms.</li> <li>• Exterior materials utilized in construction of new buildings, as well as site and landscape improvements, shall be high quality and shall be selected for both their enduring aesthetic quality and for their long term durability.</li> <li>• Ensure that the architectural and landscape treatment of the proposed parking structure promotes human scale and pedestrian activity.</li> <li>• Detailed designs for the public park shall be developed. The design shall emphasize the public nature of the space and pedestrian comfort. The plaza design shall consider sun/shade patterns during mid-day hours throughout the year. The plaza design shall be sensitively integrated with the streetscape.</li> </ul>	LTS

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<p><u>AES-2</u>: The proposed development would provide additional sources of nighttime lighting in the downtown.</p>	<p>S</p>	<p><u>AES-2a</u>: The specific reflective properties of Project building materials shall be assessed by the City during Design Review as part of the Project’s Development Standards, Procedures and Guidelines. Design review shall ensure that the use of reflective exterior materials is minimized and that proposed reflective material would not create additional daytime or nighttime glare.</p> <p><u>AES-2b</u>: Specific lighting proposals shall be reviewed and approved by the City prior to installation. This review shall ensure that any outdoor night lighting for the Project is down shielded and would not create additional nighttime glare.</p>	<p>LTS</p>
<p><b>K. WIND</b></p>			
<p><u>WIND-1</u>: Construction of 19-story buildings on Blocks 5 and 7 could result in wind speeds of over 36 mph.</p>	<p>S</p>	<p><u>WIND-1a</u>: The final design of the high-rise buildings on Blocks 5 and 7 shall be in accordance with one or more of the following design guidelines. In addition, as part of the design review process for these high-rise buildings, a qualified wind consultant shall ensure the Project is designed in accordance with these guidelines:</p> <ul style="list-style-type: none"> <li>• Align long axis of each building along a northwest-southeast alignment to reduce exposure of the wide faces of the building to westerly or southeasterly winds.</li> <li>• West or southeasterly building faces shall be articulated and modulated through the use of architectural devices such as surface articulation; variation; variation of planes, wall surfaces, and heights; and the placement of setbacks and other similar features.</li> <li>• Utilize properly-located landscaping that mitigates high winds. Porous materials (e.g., vegetation, hedges, screens, latticework, perforated metal), which offer superior wind shelter compared to solid surfaces, shall be used.</li> <li>• Avoid narrow gaps between buildings where westerly or southeasterly winds could be accelerated; or</li> <li>• Avoid breezeways or notches at the upwind corners of the building.</li> </ul>	<p>LTS</p>

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
WIND-1 <i>continued</i>		<p><u>WIND-1b</u>: A qualified wind consultant shall review and evaluate the final design of the high-rise buildings on Blocks 5 and 7, and shall determine whether incorporated design features would reduce wind impacts to a less-than-significant level. If the wind consultant determines that these design features would reduce wind impacts to a less-than-significant level (i.e., less than 36 mph), no further mitigation would be required. If the wind consultant determines that significant adverse wind impacts could occur, models of the proposed Blocks 5 and 7 buildings shall be subject to wind tunnel testing to determine if the buildings would result in uncomfortable or hazardous winds. The wind consultant shall work with the Project architect to develop further building design modifications that would reduce wind impacts to a less-than-significant level (i.e., standard of less than 36 mph).</p>	
<p><b>L. SHADE AND SHADOW</b>  <i>The Project would not result in any significant impacts related to shade and shadows.</i></p>			



### III. PROJECT DESCRIPTION

This chapter describes the Uptown Mixed Use Project (Project), that is evaluated in this Environmental Impact Report (EIR). A description of the proposed Project's regional and planning context, objectives, and background is also provided, in addition to a discussion of the intended uses of the EIR, and required Project approvals and entitlements.

#### A. PROJECT SITE

##### 1. Location

The Project site, which comprises approximately 15 acres, is located in the Uptown District of Oakland. The City of Oakland (City) is located in Alameda County on the eastern side of San Francisco Bay, approximately 4.5 miles east of San Francisco. The Uptown District, which was a popular shopping and entertainment destination in Oakland from the 1870s to World War II, is located immediately north of downtown. The Uptown District is currently a mixed-use neighborhood characterized by ground-floor commercial businesses, apartment buildings, parking areas, and vacant parcels. The neighborhood also contains two important historic architectural landmarks: the Fox Oakland Theater (1807 Telegraph Avenue) and the Paramount Theater (2025 Broadway Avenue). The Project site's regional and local location are illustrated in Figure I-1 included in Chapter I.

The Project site consists of a nine-block area as shown in Figure III-1. Blocks 1 through 6 are generally bounded by Thomas L. Berkley Way (20th Street) on the north, Telegraph Avenue on the east, 18<sup>th</sup> Street on the south, and San Pablo Avenue on the west. William Street and 19<sup>th</sup> Street traverse the Project site east to west, providing connections between San Pablo and Telegraph Avenues. The Fox Theater site, which is located to the east of Block 6, is not a part of the Project site. Blocks 7 and 8 are located on the north side of Thomas L. Berkley Way (20th Street); Block 7 is west of Telegraph Avenue and Block 8 is east of Telegraph Avenue. Block 9 is located on the southeastern corner of Telegraph Avenue and 22<sup>nd</sup> Street, approximately two blocks north of the other eight blocks.

Regional vehicular access to the Uptown District is via the 18<sup>th</sup> Street exit on Interstate 980 (I-980). The Project site is accessed from I-980 via 12<sup>th</sup> Street, Broadway, and Telegraph Avenue. The Project site is two blocks to the west of the 19<sup>th</sup> Street Bay Area Rapid Transit (BART) Station, which is located at the intersection of 19<sup>th</sup> Street and Broadway. In addition, the Project site is accessible by Alameda-Contra Costa Transit (AC Transit) buses, which run frequently along San Pablo Avenue and Telegraph Avenue, immediately adjacent to the Project site.

##### 2. Site Characteristics

The nine-block Project site includes 66 individual parcels. A block-by-block list of parcel numbers, land owners, and existing land uses within the Project site is provided in Appendix B. Parking areas cover the majority of the site, including the following blocks: Block 6 and Block 5; the majority of

Figure III-1: Project Boundaries

8 ½ x 11 B&W

Block 4 and Block 2; and Block 3. Block 5 and the southern portion of Block 1 consist of vacant parcels. Commercial and residential uses are located in select areas along the site periphery.

Mixed land uses are located along the northern and western boundary of Block 1 and the northwest corner of Block 2. Sears Auto Center and an associated parking lot are located in the southeast corner of Block 4. Giant Burger, a fast food restaurant, is located in Block 9.

Consistent with the extensive site coverage that is dedicated to surface parking, the existing residential population of the Project site is relatively low. The site currently contains approximately 34 occupied single-room occupancy residential units.

A more detailed discussion of existing uses is provided in Chapter IV.A, Land Use.

## **B. PROJECT BACKGROUND**

The Project site and the greater Uptown Area have been the subject of several other planning efforts in recent years. Past and current proposals/studies relevant to the Project site are provided below.

### **1. Downtown Housing Initiative**

Oakland Mayor Jerry Brown and the Oakland City Council initiated the 10K Downtown Housing Initiative in 1999. The goal of the Downtown Housing Initiative is to construct approximately 6,500 market-rate housing units in order to attract 10,000 new residents to downtown Oakland. The objectives of the Downtown Housing Initiative are to increase the overall population of downtown, capitalize on the existing underutilized transit infrastructure, make downtown Oakland a more active place at night, provide needed market-rate housing, and increase the stability of downtown neighborhoods. The proposed Project will further these objectives.

As of August 2003, 11 residential projects (comprising 1,337 residential units) have been completed as part of the Downtown Housing Initiative. In addition, six projects (408 units) are under construction, ten projects (1,226 units) have received planning approvals, three projects (267 units) have submitted planning applications and five projects (1,557 units) have begun initial planning to develop proposals.<sup>1</sup> Consistent with CEQA and other legal requirements, the construction of housing is encouraged under the Downtown Housing Initiative through streamlined development and permitting processes, identification of key sites, and the use of incentives on a case-by-case basis.

### **2. Public Resources Code Section 21159.25 (Assembly Bill 436)**

Public Resources Code Section 21159.25 (commonly referred to as Assembly Bill 436), passed in October 2001, allows for the preparation of focused EIRs for most infill residential projects in Downtown Oakland, including projects in the Uptown District, Old Oakland, and portions of Chinatown (see Chapter I for a more detailed discussion). Pursuant to Section 21159.25, this EIR is being prepared as a focused EIR that is tiered off of the EIR prepared for the City General Plan Land Use and Transportation Element (LUTE). Section 21159.25 allows a focused EIR to be prepared on

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<sup>1</sup> City of Oakland Community and Economic Development Agency, 2003. CEDA Website: [www.Business2oakland.com/main/10downtownhousinginitiative.htm](http://www.Business2oakland.com/main/10downtownhousinginitiative.htm).



the basis of a General Plan EIR only if the analysis in the EIR of cumulative impacts, growth inducing impacts, and irreversible significant effects on the environment is adequate. A summary of these findings from the LUTE EIR is provided in Appendix A of this EIR.

Further, an updated analysis of cumulative effects has been prepared for the topics evaluated in the focused EIR to ensure that a comprehensive analysis has been conducted.

### 3. Planning Efforts in the Area

In 1991, the Oakland-East Bay Galleria was proposed for the Uptown Planning Area on a site bordered by Thomas L. Berkley Way (20<sup>th</sup> Street) on the north, Broadway on the east, 17<sup>th</sup> Street on the south, and San Pablo Avenue on the west. The project would have included approximately 1.12 million square feet of retail space, 600,000 square feet of office space, and 3,000 to 4,000 parking spaces. An EIR for the project was certified in 1992. Prior to the Galleria proposal, a large retail mall project was proposed by the Rouse Company, neither of these retail proposals were constructed.

The Uptown District is also the focus of several transit and circulation improvement projects. Key projects include City-sponsored streetscape improvements along Telegraph Avenue and the AC Transit San Pablo Corridor Service and Bus Rapid Transit Project.<sup>2</sup>

- The *Telegraph Avenue Streetscape Improvements*, which are currently in the planning stage, would result in the integration of transit, bike, pedestrian, and vehicular facilities along a portion of Telegraph Avenue extending from 16<sup>th</sup> Street to Thomas L. Berkley Way (20<sup>th</sup> Street). Additional improvements would include streetscape beautification and traffic-calming measures.
- *AC Transit San Pablo Avenue Rapid Bus Service*, which began initial operation in June 2003, features a rapid bus route extending primarily along San Pablo Avenue from Contra Costa College in San Pablo to Jack London Square in Oakland. The service runs adjacent to the Project site. The Rapid Bus Service utilizes a traffic signal priority system and 40-foot, three-door buses to allow for maximum speed and efficiency. The buses run every 12 minutes during the peak travel period (6:00 a.m. through 7:00 p.m., Monday through Saturday) and every 15 minutes during non-peak times.
- The AC Transit Board of Directors approved a *Bus Rapid Transit (BRT)* plan for the Berkeley/Oakland/San Leandro transportation corridor on August 2, 2001. The recommended BRT alignment would extend from the downtown Berkeley BART station to the Bay Fair BART station in San Leandro and would run adjacent to the Project site along Telegraph Avenue. The BRT system would feature: 1) special transit lanes dedicated to BRT along most of the corridor; 2) traffic signal priority and coordination throughout the corridor; 3) frequent service (every 5 to 7½ minutes); 4) wide BRT station spacing (¼-mile to ½-mile between stations); 5) improved stations with real-time bus arrival information; 6) proof-of-payment ticket validation; and 7) low-floor, multi-door, low-emission buses. The BRT plan is currently undergoing environmental review.

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<sup>2</sup> Alameda-Contra Costa Transit (AC Transit), 2003. Website: [www.actransit.org](http://www.actransit.org).

## C. PROJECT OBJECTIVES

The main objective of the Project applicant is to develop approximately 1,300 residential units, in addition to approximately 1,050 student beds/faculty units and approximately 43,000 square feet of commercial space. Other objectives of the Project are as follows:

1. Redevelop a group of blighted, underutilized sites in Oakland to create a vibrant new neighborhood.
2. Develop one new street to create a fine-grained district that is integrated with the City's existing grid layout, create neighborhood connectivity, and encourage pedestrian activity.
3. Create a mixed-use development that highlights the neighborhood's traditional role as an entertainment center.
4. Provide for a stable "24-hour" population in downtown Oakland.
5. Develop community-accessible open space.
6. Construct both market-rate and below-market rate housing on a site that is well-served by transit and is in proximity to downtown jobs.
7. Create a community that enhances the visual and community character of the surrounding neighborhood.
8. Develop a diversity of housing types, including students units, condominiums, family units, and studios, that can accommodate a diverse group of people/households.
9. Implement the Mayor's and City Council's 10K Downtown Housing Initiative.
10. Create a transit-oriented community that encourages pedestrian and bicycle access, and the use of public transportation.
11. Develop a pedestrian-friendly neighborhood that is well integrated with its surroundings.
12. Design a project that is consistent with the following General Plan policies in the Land Use and Transportation Element: T2.1; T2.2; D1.5; D6.1; D10.1; D10.2; D10.6; and D11.1.
13. Develop a project that is feasible in terms of density, building height, design, and construction. Integrate development successfully into historic urban development patterns and reestablish and strengthen connections to major transportation corridors and Central District cultural and governmental facilities.
14. Improve the existing jobs/housing balance in the greater Central District.
15. Coordinate public improvements and project sponsors improvements to create a unified urban district with regard to streetscape, connections to nearby commercial districts, transit, and entertainment uses.

16. Provide opportunity to strengthen local-serving commercial and retail activity by providing ground floor spaces for such uses.

## D. PROPOSED PROJECT

This EIR considers the environmental effects of the Project proposed by Uptown Partners LLC, which comprises Forest City Residential West and California Urban Investment Partners (Project applicant). This section provides a description of the proposed Project based on information provided by the Project applicant.

### 1. Project Concept

The proposed Project is a mixed-use development that comprises:

- approximately 1,000 apartments and 270 condominiums;
- 1,050 student beds/faculty units;
- approximately 43,000 square feet of commercial space;
- 1,959 parking spaces; and
- a 25,000 square-foot public park.

The 43,000 square feet of commercial space would include: 1) ground floor retail space in the residential buildings proposed along Telegraph Avenue (approximately 33,000 square feet); and 2) Sears Auto Center commercial space (approximately 10,000 square feet). A new north/south street would be developed within the Project site to allow for: a smaller block size that encourages walking and biking; improved north/south circulation; pedestrian activities; and neighborhood connectivity. A more detailed block-by-block description of the proposed Project follows. The Project concept is illustrated in Figure III-2.

### 2. Block-Specific Development

A description of the development proposed for each proposed block is provided below and summarized in Table III-1.

**a. Blocks 1 and 2.** Blocks 1 and 2 are bounded by Thomas L. Berkley Way (20th Street) on the north, a proposed new street on the east, 19<sup>th</sup> Street on the south and San Pablo Avenue on the west. William Street would bisect Blocks 1 and 2. Block 1 would be to the north of William Street; Block 2 would be to the south of William Street. As noted above, a new north-south street is

**Table III-1: Project Characteristics**

Block	Phase	Stories	Parking Spaces	Units (Res.) <sup>a</sup>	Types of Units	Square Footage (Com.) <sup>b</sup>
1	I	5	190	190	Apts.	--
2	I	5	190	190	Apts.	--
3	II	12	270	250	Apts.	7,500
4	II	5	294	225	Apts.	14,500
5	III	19	270	270	Condo.	--
6	I	5	145	145	Apts.	--
7	I	7 19-22	550	1,000/ 50	Student Beds/ Faculty Units	11,000
8 <sup>c</sup>	--	--	--	--	--	--
9	I	1	50	--	--	10,000
<b>Total</b>	--	--	<b>1,959</b>	<b>1,000 270 1,050</b>	<b>Apts Condos Student Beds/ Faculty Units</b>	<b>43,000</b>

<sup>a</sup> Res. = Residential.

<sup>b</sup> Com. = Commercial development.

<sup>c</sup> Block 8 is the alternate site for the relocation of the Sears Auto Center.

Source: Forest City Residential West, 2003.

Figure III-2: Conceptual Site Plan

8X11 B&W

proposed to provide access to the Project from Thomas L. Berkley Way (20th Street); it would separate Blocks 1 and 2 from Blocks 3 and 4 and terminate at 19<sup>th</sup> Street.

- Block 1 would contain two five-story buildings atop parking podiums. The buildings would be approximately 65 feet in height and would contain a total of 190 residential units with three courtyards. Unit types include a mix of studio, townhome, live/work residential lofts, and one, two, and three-bedroom units. No retail space is proposed in this building. A single-level, approximately 190-space subterranean parking structure is proposed, located one-half story below grade.
- Two buildings are proposed for Block 2. The buildings would be five-story structures atop a parking podium, and would be approximately 65 feet in height. The structures would be separated by a landscaped pedestrian alley. Combined, the buildings would contain 190 residential units. The building in the eastern portion of the block would surround an urban courtyard. Unit types include a mix of studio, townhome, live/work residential lofts, and one, two, and three-bedroom units. No retail space is proposed on Block 2. A single-level, approximately 190-space subterranean parking structure is proposed, located one-half story below grade.

**b. Blocks 3 and 4.** Blocks 3 and 4 are located in the eastern portion of the Project site. These blocks would be bordered by a proposed new street to the west, Thomas L. Berkley Way (20<sup>th</sup> Street) to the north, Telegraph Avenue to the east, and 19<sup>th</sup> Street to the south. William Street also bisects this area, with Block 3 to the north of William Street, and Block 4 to the south.

- Block 3 would contain a 12-story building approximately 144 feet in height. The building would contain approximately 250 residential units and 7,500 square feet of groundfloor commercial space. The residential units would surround two courtyards, and the retail space would front Telegraph Avenue. Unit types include a mix of studio, townhome, live/work residential lofts, and one, two, and three-bedroom units. A three-level parking structure is proposed within the first level at-grade and two subterranean levels. The structure would contain approximately 270 parking spaces.
- Block 4 would contain a five-story building approximately 65 feet in height. The building would contain 225 residential units and 14,500 square feet of retail space on the ground floor. The residential units would surround three urban courtyards, and the retail space would front Telegraph Avenue. Unit types include a mix of studio, townhome, live/work residential lofts, and one, two, and three-bedroom units. A two-level, approximately 294-space parking structure is proposed; the first level would be located one-half story below grade, the second level would be subterranean.

**c. Blocks 5 and 6.** Blocks 5 and 6 are located in the southern portion of the Project site. These blocks are bordered by 19<sup>th</sup> Street on the north, the Fox Theater site (which is not part of the Project site) on the east, 18<sup>th</sup> Street on the south, and San Pablo Avenue on the west. Block 5 is located on the west side of this area (adjacent to San Pablo Avenue) and Block 6 is located on the east side of this area (adjacent to the Fox Theater and a proposed new street).

- Block 5 would contain one 19-story tower approximately 250 feet in height. The buildings would contain a total of 270 condominiums. Unit types include a mix of studio, townhome, live/work residential lofts, and one, two, and three-bedroom units. A three-level, approximately 270-space parking structure is also proposed, with the first level located one-half story below grade. No retail space would be located within this block.

- Block 6 would contain one five-story structure approximately 65 feet in height. Unit types include a mix of studio, townhome, live/work residential lofts, and one, two, and three-bedroom units. A one-level, approximately 145-space subterranean parking structure is proposed, located one-half story below grade. No retail space would be located within this block.

**d. Blocks 7 and 8.** Blocks 7 and 8 are located across Thomas L. Berkley Way (20th Street), in the northeastern portion of the Project site. Block 7 is bordered by Thomas L. Berkley Way (20th Street) on the south, Telegraph Avenue on the east, 21<sup>st</sup> Street on the north and the PG&E substation and a proposed new street on the west. Block 8 is bordered by Thomas L. Berkley Way (20th Street) on the south, Telegraph Avenue on the west, 21<sup>st</sup> Street on the north and the Paramount Theater on the east.

- A 19-story student housing tower would be constructed on Block 7. The student housing tower would contain 1,000 student beds, 11,000 square feet of commercial space, and 550 parking spaces in a five-story parking structure above grade. A five-story faculty housing building would also be constructed on Block 7. This structure would contain 50 residential units.
- Block 8 is proposed as an alternate site for the relocation of the Sears Auto Center. Block 9 (see below) is the preferred relocation site for the Sears Auto Center.

**e. Block 9.** Block 9 is located at the southeast quadrant of Telegraph Avenue and 22<sup>nd</sup> Street, approximately one block north of Blocks 7 and 8. The block is not contiguous with the rest of the Project site. Block 9 is the preferred site for the relocation of the Sears Auto Center, which is currently located on Block 4 on Telegraph Avenue. Building 9 would include approximately 10,000 square feet of retail space for the auto center and 50 on-site parking spaces.

### 3. Unit Types and Affordability

Table III-2 illustrates an approximate breakdown of unit types that would be built as part of the proposed Project. All of the units, except the 270 for-sale condominiums proposed on Block 5, would be rental units.

At least 25 percent of the units constructed as part of the proposed Project (excluding student and faculty units, but including rental and condominium uses) would be priced at affordable levels. At least 20 percent of the units would be affordable to households earning up to 50 percent of the Alameda County Median Income; 5 percent of the overall units would be affordable to households earning up to 120 percent of the Alameda County Median Income.

**Table III-2: Unit Types**

Type	Approx. Square Feet	% of Total Units
Studios	560	30
1 bedroom/1 bath	750	30
2 bedroom/2 bath	1,130	35
3 bedroom/3 bath	1,300	5

Source: Forest City, 2003.

### 4. Parks and Open Space

A 25,000 square-foot public park would be developed on the western portion of Block 3. The park would be bordered by Thomas L. Berkley Way (20th Street) on the north, the proposed new road on the west, William Street on the south and Block 3 on the east. It would be open to the public and would not be gated. Design features that would be incorporated into the park include paths, benches, a shade arbor, public art, and rolling lawns for passive seating and picnics. Plantings in the park interior would include street trees, flowering trees, large shade trees, and ground cover. The planting

list emphasizes species that are drought-tolerant and that require minimal maintenance. In keeping with the intent that the park be as ecologically-sound as possible, bio-swales will be incorporated into the design to allow surface runoff to seep into the ground water system. Low-level evening lighting would also be incorporated into the park. Lighting would generally be installed along the park perimeter and would feature historic-looking bollard-type fixtures at park entryways.

## **5. Circulation, Parking, and Streetscape Improvements**

A new north/south road would be developed within the Project site. The road would be located immediately west of the Fox Theater between 18<sup>th</sup> Street and 19<sup>th</sup> Street; north of 19<sup>th</sup> Street, the road would be aligned approximately 150 feet to the west of the portion of the road south of 19<sup>th</sup> Street, and would extend north through the Project site to 21<sup>st</sup> Street. The proposed road would be 34 feet wide and include parking on each side and a 10-foot travel lane in each direction. An 8-foot wide sidewalk would be developed on each side of the street. At intersections the curb would extend out to the edge of the parking zone to minimize the width of the street for pedestrians.

On the portion of San Pablo Avenue adjacent to the Project site, one of the northbound traffic lanes would be replaced with 47 angled parking spaces. Sidewalks that would be developed as part of the proposed Project are designed to encourage pedestrian activity; 8-foot-wide sidewalks would be developed on William Street and 10-foot-wide sidewalks would be developed on 18<sup>th</sup> Street, 19<sup>th</sup> Street, and Thomas L. Berkley Way (20<sup>th</sup> Street).

Existing streets through the Project site may be narrowed to slow traffic through the neighborhood; additional traffic-calming design features that would be incorporated into the Project include street tree wells, tree islands in parking areas, and special paving on William Street. The narrow streets would restrict traffic speed and facilitate bicycle use. Separate roadway bike lanes would not be designated for bicycle use within the Project site; however, bike lanes would be developed on Telegraph Avenue as part of the City's Telegraph Avenue streetscape improvement project.

Ingress and egress to garages within the Project site would be concentrated on William Street. Access to Blocks 1 and 2 would be via William Street; access to Block 3 would be via Thomas L. Berkley Way (20<sup>th</sup> Street) and William Street; access to Block 4 would be via William Street and 19<sup>th</sup> Street; access to Blocks 5 and 6 would be via a new internal north/south roadway between 18<sup>th</sup> Street and 19<sup>th</sup> Street; access to the parking garage on Block 7 would be via 21<sup>st</sup> Street. The proposed Project includes 1,959 parking spaces in garages and 176 on-street parking spaces. Streetscape improvements would include a unified street tree planting, and the installation of streetlights similar to the existing "acorn" lights along 18<sup>th</sup> Street.

A 50-foot-wide area would be retained as open space immediately to the west of the Fox Theater in order to accommodate future loading and unloading activities at the theater. A linear planting area would be installed on the west side of the north/south lane adjacent to the theater to screen the loading and utility areas of the theater from the housing that would be developed within Block 6.

Approximately 1,242 parking spaces would be removed as part of implementation of the proposed Project. Proposed parking within the Project site represents a net increase of 893 parking spaces within the Project site. Parking spaces for residential and commercial uses would be provided via covered parking lots and on-street parking.

## 6. Population and Employment

Table III-3 details an estimate of the population and employed persons that would be generated by the proposed Project.

## 7. Demolition and Construction

Demolition activities would include the removal of all existing structures on Blocks 1 through 7, including approximately 20 buildings, with the possible exception of the Greater Western Power Company Building (also known as Navlet's Florist and Nursery). The Project applicant is proposing the following three variants in regard to the Great Western Power Company Building:

- *Variant 1:* Complete demolition of the Great Western Power Company Building.
- *Variant 2:* Partial demolition of the Great Western Power Company Building.
- *Variant 3:* Preservation of the Great Western Power Company Building.

Further descriptions of these variants are included in Section IV.I, Historic Architectural, Archaeological and Paleontological Resources.

The Project also includes the removal of approximately 1,242 parking spaces that provide general public parking for downtown, and parking for the Sears department store located across Telegraph Avenue from the Project site. The removal of these parking facilities includes demolition of six surface parking lots and the Sears parking garage, located on San Pablo Avenue between 19<sup>th</sup> and William Streets. The land uses of the buildings that would be demolished include a take-out restaurant, resident hotels, vacant office space, and other miscellaneous commercial uses (including the Sears Auto Center building). Relocation of tenants from the small number of residential units located on the Project site would be undertaken in accordance with State Redevelopment Law.

Commercial relocations that would occur as part of the Project include the relocation of the Sears Auto Center from its current location at 1901 Telegraph Avenue to Block 9 at the corner of 22<sup>nd</sup> Street and Telegraph Avenue. If the Sears Auto Center moves to Block 9, the existing Giant Burger restaurant on the southeast corner of the intersection of Telegraph Avenue and 22<sup>nd</sup> Street would receive relocation assistance in accordance with State Redevelopment Law.

**Table III-3: Population and Employed Persons**

Type	Units	Estimate of Residents	Estimate of Employed Residents
<b>APARTMENTS</b>			
<i>Total Apartments</i>	1,000	1,737	1,249
<b>CONDOMINIUMS</b>			
<i>Total Condominiums</i>	270	481	355
<b>STUDENT/FACULTY HOUSING</b>			
Dorm Beds	1,000	1,000	333
Faculty Units	50	100	65
<i>Total Student/Faculty Housing</i>	1,050	1,100	398
<b>TOTAL PROJECT</b>	<b>2,320</b>	<b>3,318</b>	<b>2,002</b>

Note: Refer to Section IV.B, Population, Employment and Housing, for a detailed breakdown of how these numbers were estimated.  
 Source: Hausrath Economics Group, June 5, 2003.



Construction of the proposed five-story buildings would be wood-frame over a concrete parking podium. In the five-story buildings, parking would be located below grade and one-half story above grade using concrete construction for the parking garage portion of the buildings. In the high-rise towers, concrete or steel frame construction would be used and parking would be located both below and above grade. Pile driving for building foundations may be necessary. The use of pile driving will be determined upon review of further geotechnical and structural building systems studies. For the purposes of this EIR, it is assumed that pile driving will be used during construction. Excavation depth on the Project site is anticipated to range from 7 feet to 20 feet.

#### **8. Anticipated Project Phasing**

Construction is anticipated to begin on Block 4 in September 2004 and continue to full buildout by 2010. However, this construction timeframe is estimated based on current market conditions, and could be subject to change.

#### **E. INTENDED USE OF THIS EIR**

It is anticipated that this EIR will provide environmental review for all discretionary approvals necessary for the Project. A number of permits and approvals would be required before the development of this Project could proceed. As lead agency for the proposed Project, the City of Oakland would be responsible for the majority of approvals required for development. Other agencies also have some authority related to the Project and its approvals. A list of the required permits and approvals that may be required by the City and other agencies is provided in Table III-4.

**Table III-4: Required Permits and Approvals**

<b>Lead Agency</b>	<b>Permit/Approval</b>
City of Oakland Planning Commission City Council Redevelopment Agency	<ul style="list-style-type: none"> <li>• Major Conditional Use Permit for a project over 100,000 square feet in size</li> <li>• Demolition of Single Residency Occupancy (SRO) units</li> <li>• Design Review</li> <li>• Planned Unit Development (preliminary and final)</li> <li>• Minor Conditional Use Permits or Variances, if determined necessary once detailed plans are submitted</li> <li>• Redevelopment Agency actions, including a Disposition and Development Agreement and acquisition of land</li> <li>• Subdivision Maps to combine parcels, create new parcels or create condominiums, if proposed</li> <li>• DDA</li> <li>• General Plan Amendment to designate proposed park as open space</li> </ul>
<b>Responsible Agencies</b>	
East Bay Municipal Utility District (EBMUD)	<ul style="list-style-type: none"> <li>• Approval of water line, water hookups and review of water needs</li> </ul>
California Department of Transportation (Caltrans)	<ul style="list-style-type: none"> <li>• Approval of plans and encroachment permit for improvements located within the State right-of-way; improvements within the public right-of-way; excavation for utilities; clean-up of contamination; condemnation of property (if required); and traffic improvements (including re-paving, re-striping, signal improvements, street lights, and signal optimization)</li> </ul>
California Regional Water Quality Control Board (RWQCB)	<ul style="list-style-type: none"> <li>• National Pollutant Discharge Elimination System (NPDES) permit for stormwater discharge</li> <li>• Approval and oversight of required remediation plans</li> </ul>
<b>Other Agencies</b>	
SBC (prev. Pacific Bell)	<ul style="list-style-type: none"> <li>• Approval of communication line improvements and connection permits</li> </ul>
Pacific Gas & Electric (PG&E)	<ul style="list-style-type: none"> <li>• Approval of natural gas improvements and connection permits</li> </ul>
California Department of Toxic Substances Control (DTSC)	<ul style="list-style-type: none"> <li>• Approval and oversight of the plan</li> </ul>
Bay Area Air Quality Management District (BAAQMD)	<ul style="list-style-type: none"> <li>• Permitting of asbestos abatement activities</li> </ul>

Source: LSA Associates, Inc., 2003.



## IV. SETTING, IMPACTS, AND MITIGATION MEASURES

This chapter contains an analysis of each environmental topic that has been identified through environmental evaluation of the Uptown Mixed Use Project, and, as such, constitutes the major portion of this Draft EIR. Sections A through L of this chapter describe the environmental setting of the proposed Project as it relates to each specific environmental issue, the impacts resulting from implementation of the Project, and mitigation measures, as appropriate, that would reduce impacts of the Project.

### DETERMINATION OF SIGNIFICANCE

Under CEQA, a significant effect is defined as a substantial, or potentially substantial, adverse change in the environment.<sup>1</sup> The *CEQA Guidelines* direct that this determination be based on scientific and factual data. Each impact evaluation in this chapter is prefaced by criteria of significance, which are the thresholds for determining whether an impact is significant. These criteria of significance have been developed by the City of Oakland.

### ISSUES ADDRESSED IN THE DRAFT EIR

The following environmental issues are addressed in this chapter:

- A. Land Use
- B. Population, Employment and Housing
- C. Hydrology and Water Quality
- D. Transportation, Circulation and Parking
- E. Air Quality
- F. Noise
- G. Hazards and Hazardous Materials
- H. Utilities and Infrastructure
- I. Historic Architectural, Archaeological and Paleontological Resources
- J. Aesthetic Resources
- K. Wind
- L. Shade and Shadow

### FORMAT OF ISSUE SECTIONS

Each environmental issue section has two main subsections: 1) Setting and 2) Impacts and Mitigation Measures. Each impacts and mitigation measures subsection is further divided into an initial discussion of *less-than-significant* impacts and a following discussion of *significant* impacts. Any

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<sup>1</sup> Public Resources Code Section 21068.

identified significant impacts are numbered and shown in bold type, and the corresponding mitigation measures are numbered and indented. Significant impacts and mitigation measures are numbered consecutively within each topic and begin with a shorthand abbreviation for the impact section (e.g., LAND for Land Use). The following abbreviations are used for individual topics:

LAND:Land Use  
POP:Population, Employment and Housing  
HYD:Hydrology and Water Quality  
TRANS:Transportation, Circulation and Parking  
AIR:Air Quality  
NOISE:Noise  
HAZ:Hazards and Hazardous Materials  
UTL:Utilities and Infrastructure  
HIST:Historic Architectural, Archaeological and Paleontological Resources  
AES:Aesthetic Resources  
WIND:Wind  
SHADE:Shade and Shadow

The following notations are provided after each identified significant impact and mitigation measure:

SU = Significant and Unavoidable  
S = Significant  
LTS = Less than Significant

These notations indicate the significance of the impact before and after mitigation.

## A. LAND USE

This section evaluates the effects of the Uptown Mixed Use Project on land use. Potential land use impacts that would result from implementation of the proposed Project are identified, and mitigation measures are recommended, as appropriate. This section also contains a discussion of the consistency of the proposed Project with relevant land use policies. However, policy conflicts do not, in and of themselves, constitute a significant environmental impact. Policy conflicts are considered to be environmental impacts only when they would result in direct physical impacts. Therefore, land use policies are discussed in this section for informational purposes only. All other associated physical impacts are discussed in this EIR under specific issue areas such as noise, air quality and traffic.

### 1. Setting

The following section describes existing land uses within the Project site and its vicinity, and summarizes relevant land use policies.

**a. Overview.** The Project site is located in the Uptown District of Downtown Oakland, north of the Oakland City Center. The Uptown District is generally bounded by West Grand Street to the north, Broadway to the east, 17<sup>th</sup> Street to the south, and San Pablo Avenue to the west. Figure IV.A-1 provides an overview of existing land uses within and adjacent to the Project area, and illustrates the Project boundaries. The Project site (Blocks 1-9) is within a larger area known as the Uptown District. This district was historically an area known for its retail shopping and entertainment uses (Emporium, I Magnin, The Paramount and Fox Theaters). The City's redevelopment and revitalization efforts for the larger Uptown District include the Telegraph Avenue streetscape improvements, the reuse of the Fox Theater for a School of the Arts, the Alameda County Self-Sufficiency Center and associated offices, and housing at the corner of San Pablo Avenue and Thomas L. Berkley Way. The subject of this EIR includes the Project sponsor's development proposal for Blocks 1-9. To the extent that the other revitalization efforts in the District would contribute to cumulative physical impacts, this has been included as appropriate in each impact section and also incorporated into the growth projections used for the cumulative impact analysis.

**(1) Project Boundaries.** The Project site consists of a nine-block area, as shown in Figure III-1. Block 1 through Block 7 are generally bounded by 21<sup>st</sup> Street to the north, Telegraph Avenue and the Fox Theatre to the east, 18<sup>th</sup> Street to the south, and San Pablo Avenue and a Pacific Gas and Electric substation to the west. Block 8 is bounded by a fast food restaurant and the Paramount Theater to the north and east, Thomas L. Berkley Way (20<sup>th</sup> Street) to the south, and Telegraph Avenue to the west. Block 9 is bordered by 22<sup>nd</sup> Street to the north, a parking lot to the east and south, and Telegraph Avenue to the west.

**(2) Historical Context.** Prior to World War II, Downtown Oakland was the civic, entertainment, and commercial center of Oakland. The Uptown District represents a northward expansion of the Central Oakland Business District in the 1920s and 1930s. Compared to portions of Downtown further to the south, the Uptown District contained a greater proportion of entertainment and commercial land uses, and a smaller proportion of office uses. Business and population growth in Downtown slowed in the post-war era, in large part due to extensive suburbanization in the region, and the development of major shopping and entertainment centers in outlying areas. Reinvestment in the area increased in the 1980s and 1990s, with the renovation of historic buildings in Downtown, the develop-

ment of Jack London Square, the new civic center at Frank H. Ogawa Plaza, and reconstruction activities in response to damage caused by the 1989 Loma Prieta Earthquake.

**b. Existing Land Uses Within the Project Site.** The Project site is approximately 15 acres in size and consists of a mixture of land uses, including parking, residential, and commercial uses. Buildings within the site commonly contain ground-floor commercial uses, and residential units on upper floors. Surface and multi-story parking lots comprise the majority of the Project site. Table IV.A-1 provides a summary of existing uses by block.

**Table IV.A-1: Summary of Existing Uses by Block**

Block #	Use	Block Size (SF)	Building Area (SF)	Residential Units	Estimated Employment
1	Vacant, commercial and residential	56,033	24,267	18	21
2	Commercial, residential and parking garage	70,493	170,150	15	5
3	Surface parking and auto repair	74,796	1,971	0	15
4	Sear's Auto Center and associated surface parking	68,000	8,000	0	22
5	Vacant	38,844	0	0	0
6	Parking	53,100	0	0	0
7	Residential and commercial <sup>a</sup>	98,378	83,936	0	177
8	Parking	20,255	0	0	0
9	Restaurant	21,000	2,115	0	8
<b>TOTAL</b>		<b>500,899</b>	<b>290,439</b>	<b>33</b>	<b>248</b>

<sup>a</sup> Four units identified in Assessor's records were assumed by census enumerator to be unavailable for residence in 2000. Source: Alameda County Assessor's Office; Hausrath Economic Group; and LSA Associates, Inc., 2003.

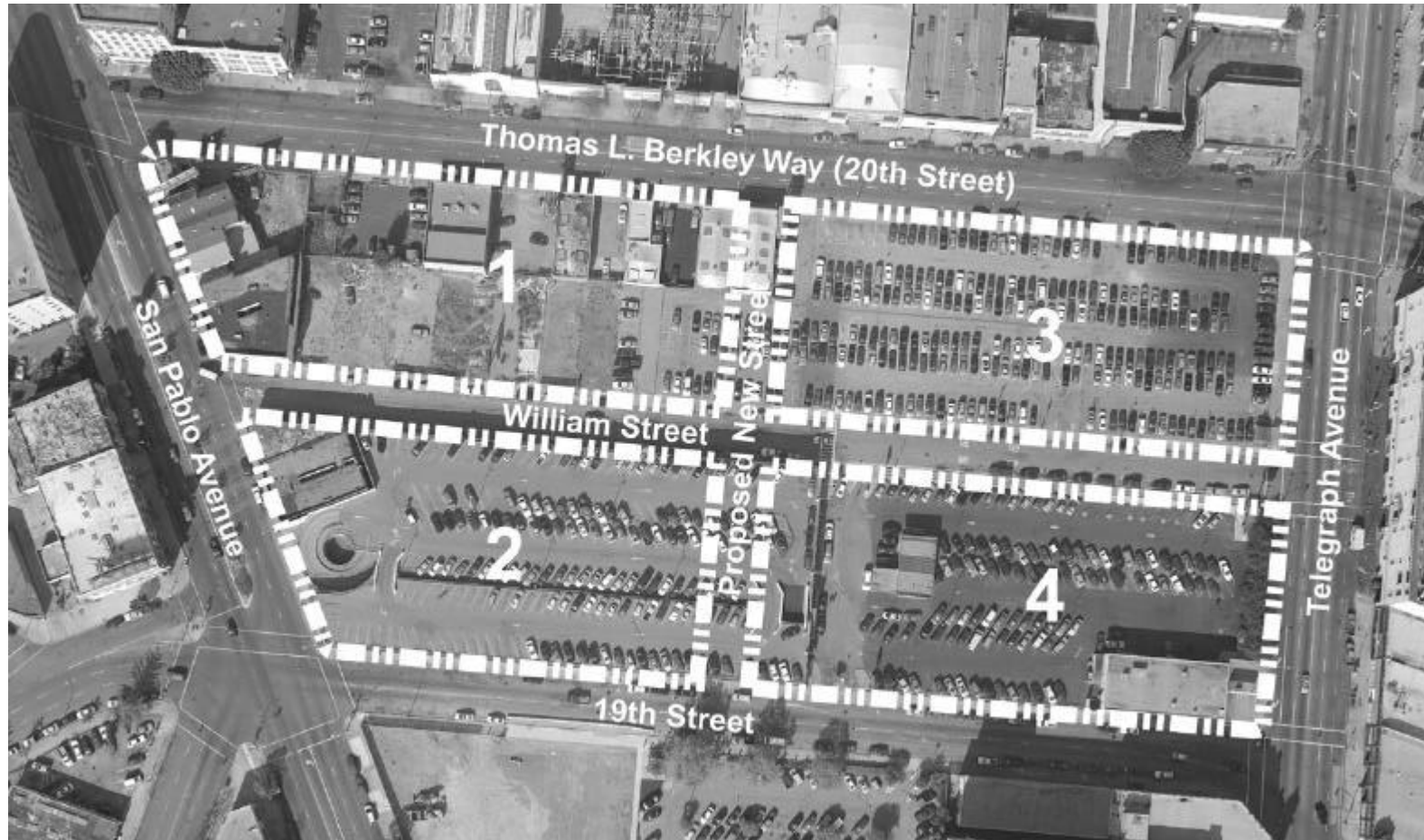
**c. Existing Land Use in the Vicinity of the Project Site.** The Project site represents a transition zone between more intense commercial and civic land uses to the east and south of the site, and less-intense residential, commercial, and institutional uses to the north and west. Key transit facilities in the vicinity of the Project site include BART stations located at the following locations: 1) 19<sup>th</sup> Street and Broadway; and 2) 12<sup>th</sup> Street and Broadway. The following discussion details the land uses in the vicinity of the Project site, traveling in a clock-wise direction, starting at Block 7. These land uses are shown in Figure IV.A-1. Figures IV.A-2 through IV.A-5 are aerial photos of blocks within the Project site.

Block 7 is bordered to the north by an apartment building, a house that is being converted into two condominiums, and a Young Men's Christian Association (YMCA) facility. Block 9 is bordered by a gas station to the north, and a parking garage on the east and south. Block 8 is bordered by a bar to the north, office uses to the west, and Sear's retail outlet to the south. Block 3 and 4 are bordered by street-fronting retail uses to the east. Blocks 5 and 6 are bordered by the Fox Theater to the east, an ice skating facility to the south, and office uses across San Pablo Avenue to the west. Blocks 1 and 2 are bordered by a senior residential care home, parking, and commercial uses across San Pablo Avenue to the west. Office uses (including the Oakland Post Building), the vacant Hotel Royal, a surface parking lot, and a Pacific Gas and Electric substation are located to the north of Block 1.

Figure IV.A-1: Land Use in Vicinity of Project Site

8x11 B&W





- Block 1.** The northern and far western portions of Block 1 contain a variety of commercial land uses, including a barbecue eat-in restaurant, a bar, and a massage parlor. A residential hotel is located within the block on San Pablo Avenue. The southern portion of the block consists of surface parking and vacant lots (Table IV.A-2).
- Block 2.** Commercial uses are located in the far northwestern corner of Block 2. The remainder of the block consists of a parking garage (Table IV.A-2).
- Block 3.** Commercial uses fronting Thomas L. Berkley Way (20<sup>th</sup> Street) are located in the far northwestern corner of Block 3. The remainder of the block consists of surface parking (Table IV.A-2).
- Block 4.** Sears Auto Center and an associated parking lot comprise Block 4 (Table IV.A-2).

**Figure IV.A-2: Aerial Photo: Blocks 1-4**

**Table IV.A-2: Existing Uses, Housing Units and Employment for Blocks 1-4**

Ref. # <sup>a</sup>	Use	Occupancy Status	Parcel Size (SF)	Building Size (SF/Units)	Estimated Employment
<b>Block 1</b>					
1	Vacant lot	Vacant	15,840	0	0
2	Vacant lot	Vacant	4,840	0	0
3	Commercial – Residential Hotel (Single Room Occupancy, 18 units) and Bar	Occupied Vacant	7,473	9,803 / 18	0
4	Commercial – Ground Floor Residence – Second Floor (1 unit)	Vacant Vacant	2,875	3,160	0
5	Commercial – Ground Floor Residence – Second Floor (2 units)	Vacant Vacant	5,060	3,863	0
6	Commercial – Restaurant	Occupied	1,813	449	3
7	Commercial – Office and associated surface parking	Occupied	8,500	3,400	7
8	Commercial – Office and associated surface parking	Occupied	5,666	1,971	5
9	Commercial – Office and associated parking	Occupied	3,966	1,621	4
<b>TOTAL BLOCK 1</b>			<b>56,033</b>	<b>24,267 / 18</b>	<b>21</b>
<b>Block 2</b>					
10	Commercial – Light Industrial and Residential Hotel (Single Room Occupancy, 16 units)	Occupied	5,620	9,267 / 15	3
11	Parking garage	Occupied	64,873	160,883	2
<b>TOTAL BLOCK 2</b>			<b>70,493</b>	<b>170,150 / 15</b>	<b>5</b>
<b>Block 3</b>					
12	Surface Parking	Occupied	70,830	0	0
13	Commercial – Auto repair garage and associated parking	Occupied	3,966	1,971	15
<b>TOTAL BLOCK 3</b>			<b>74,796</b>	<b>1,971 / 0</b>	<b>15</b>
<b>Block 4</b>					
14	Sears Auto Center and associated surface parking	Occupied	68,000	8,000	22
<b>TOTAL BLOCK 4</b>			<b>68,000</b>	<b>8,000 / 0</b>	<b>22</b>

<sup>a</sup> Appendix B provides a detailed listing of the Assessor parcel numbers and owners related to each reference number listed.

Source: Alameda County Assessor's Office; Hausrath Economic Group; and LSA Associates, 2003.



**Block 5.** Block 5 consists of a paved, vacant lot. The lot is surrounded by a chain-link fence (Table IV.A-3).  
**Block 6.** Block 6 contains a surface parking lot (Table IV.A-3).

**Figure IV.A-3: Aerial Photo: Blocks 5 and 6**

**d. Planned Land Uses.** Major projects planned for the vicinity of the Project site include the Thomas L. Berkley Square Project (please refer to Appendix C for a comprehensive list of planned projects in Downtown Oakland). The Thomas L. Berkley Square Project is proposed for an approximately 1.5-acre site to the north and west of the Uptown Mixed Use Project site and is bounded by 21<sup>st</sup> Street to the north, a Pacific Gas and Electric substation to the east, Thomas L. Berkley Way (20<sup>th</sup> Street) to the south, and San Pablo Avenue to the west. The Thomas L. Berkley Square Project would include: a four-story building with 106,000 square feet of office and retail space, which would house the Alameda County Social Services Administration and the North County Self-Sufficiency Center; a parking structure containing up to 150 spaces; a public plaza; and approximately 100 residential units. The project, which is currently undergoing environmental review, is scheduled to be complete by approximately 2008.

**Table IV.A-3: Existing Uses, Housing Units and Employment for Blocks 5 and 6**

Ref. #	Use	Occupancy Status	Parcel Size (SF)	Building Size (SF/Units)	Estimated Employment
<b>Block 5</b>					
1	Vacant lot	Vacant	5,900	0	0
2	Vacant lot	Vacant	5,003	0	0
3	Vacant lot	Vacant	18,041	0	0
4	Vacant lot	Vacant	9,900	0	0
<b>TOTAL BLOCK 5</b>			<b>38,844</b>	<b>0 / 0</b>	<b>0</b>
<b>Block 6</b>					
5	Surface parking	Occupied	29,500	0	0
6	Surface parking	Occupied	23,600	0	0
<b>TOTAL BLOCK 6</b>			<b>53,100</b>	<b>0 / 0</b>	<b>0</b>

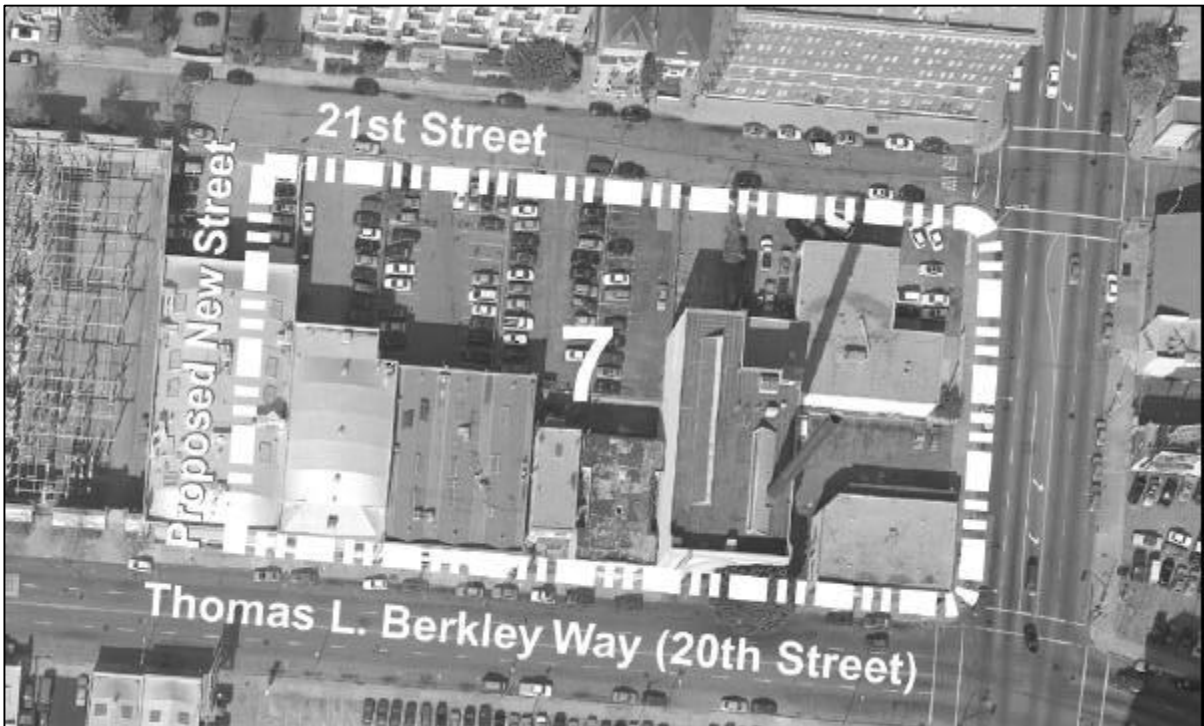
Source: Alameda County Assessor’s Office, Hausrath Economic Group, LSA Associates, 2003.

**3. Applicable Policies**

The main guiding documents regulating land use within and around the Project site are the City General Plan (particularly the Land Use and Transportation Element, Historic Preservation Element, and the Open Space, Conservation, and Recreation Element), the City Planning Code, the City’s Sustainable Development Initiative, and the Central District Urban Renewal Plan (Redevelopment Plan). The consistency of the proposed Project with other non-land use related policies is addressed in the appropriate topical sections of the EIR (e.g., air quality). Applicable land use policies from each of the documents listed above are described below.

**a. City of Oakland General Plan.** The City of Oakland General Plan (General Plan) is a comprehensive plan for the growth and development of the City. The General Plan includes policies related to: land use and circulation; housing; recreation, conservation and open space; noise; environmental hazards; and historic resources. These topics are addressed within individual elements of the General Plan. The General Plan Land Use and Transportation Element (LUTE) and the Open Space, Conservation and Recreation Element are both applicable to land use within the Project site and are described below.

**b. Land Use and Transportation Element.** The LUTE, which was adopted in March 1998, addresses land use and transportation issues in a single document. In order to accomplish a more holistic planning process that incorporates City-wide infrastructural needs with demands for neighborhood decision-making, the LUTE includes general development policies for the City, in addition to district-specific policies. The LUTE is bound by a vision for the City that includes creating: “clean and attractive neighborhoods rich in character and diversity, each with its own distinctive identity, yet well-integrated into a cohesive urban fabric” in addition to “a diverse and vibrant downtown with around-the-clock activity.” The Project site is designated Central Business District in the General Plan. Figure IV.A-6 shows General Plan and Planning Code land use designations within and in the vicinity of the Project site. The General Plan states: “The Central



**Block 7.** Block 7 contains a mixture of land uses fronting Thomas L. Berkley Way (20<sup>th</sup> Street) and Telegraph Avenue. Office uses are located within the western portion of the block along Thomas L. Berkley Way (20<sup>th</sup> Street). An abandoned residence and commercial building, and the Navlet's building (vacant as of June 2003) are located to the east of the office uses. A beauty supply retail outlet or store and a newspaper office are located within the block along Telegraph Avenue (Table IV.A-4).

**Figure IV.A-4: Aerial Photo: Block 7**

Business District (CBD) classification is intended to encourage, support, and enhance the downtown area as a high density mixed use urban center of regional importance and a primary hub for business, communications, office, government, high technology, retail, entertainment, and transportation in Northern California. The CBD classification includes a mix of large-scale offices, and commercial, urban (high-rise), residential, institutional, open space, cultural, educational, arts, entertainment, service, community facilities, and other visitor uses.

**c. City of Oakland Planning Code.** The City of Oakland Planning Code (Planning Code) implements the policies of the General Plan and certain other of the City's plans, policies, and ordinances. The Planning Code divides the City into districts, each of which is assigned different regulations. These regulations direct the construction, nature, and extent of building use. Figure IV.A-6 shows General Plan and Planning Code land use designations within and around the Project site. The following portions of the Project site are designated Central Core Commercial (C-55) and Downtown Residential Open Space Combining Zone (S-17): the southern portions of Block 5 and Block 6; the portions of Blocks 7, 3, and 4 which front Telegraph Avenue; and Block 8 and Block 9.

**Table IV.A-4: Existing Uses, Housing Units and Employment for Block 7**

Ref. #	Use	Occupancy Status	Parcel Size (SF)	Building Size (SF/Units)	Estimated Employment
<b>Block 7</b>					
1	Commercial – Newspaper	Occupied	14,857	9,839	28
2	Commercial – Retail and associated parking	Occupied	10,267	3,860	9
3	Commercial – Ground Floor Residence – Second Floor	Vacant Vacant	4,500	6,337 / 4 <sup>a</sup>	0
4	Residence	Vacant	2,967	2,890 / 4 <sup>a</sup>	0
5	Institutional – Lodgehall or clubhouse	Occupied	11,623	7,200	25
6	Commercial – Office	Occupied	16,607	25,777	64
7	Commercial – Office	Occupied	26,930	15,400	51
8	Commercial	Vacant	10,627	13,083	0
<b>TOTAL BLOCK 7</b>			<b>98,378</b>	<b>83,936 / 8</b>	<b>177</b>

<sup>a</sup> Four units identified in Assessor's records were assumed by census enumerator to be unavailable for residence in 2000.

Source: Alameda County Assessor's Office; Hausrath Economic Group; and LSA Associates, 2003.

The remainder of the Project site is designated Central Business District (C-51) and Downtown Residential Open Space Combining Zone (S-17).

According to the Planning Code, the C-55 zone “is intended to preserve and enhance a very high-intensity regional center of employment, shopping, culture, and recreation, and is appropriate to the core of the central district. The C-51 zone “is intended to create, preserve, and enhance areas for medium-intensity development of offices and business service activities, and is typically appropriate to the service commercial areas immediately adjoining the core of the central district.” Multi-family dwellings and general retail uses are permitted in both districts.

The provisions of the S-17 zone set open space standards for residential development. The provisions specify that 75 square feet of usable open space be developed for every standard residential unit. In addition, provisions for the S-17 zone define appropriate size, shape, openness, usability, accessibility, and enclosure of open space associated with residential projects.

**d. Sustainable Development Initiative.** The Oakland City Council adopted a Sustainable Community Development Initiative (Initiative) in 1998. The Initiative is a program that seeks to enhance the environmental sustainability of City operations and private development within the City. The major objectives of the Initiative include the following: economic development; employment training and continuing education; encouragement of in-fill housing, mixed use development, and sustainable (“green”) building; making City operations and services a model of sustainable practices; and increasing community involvement. The Sustainable Development Initiative comprises voluntary guidelines intended to preserve environmental health and increase economic development, and private developers are not required to incorporate them into projects. The following activities listed as part of the Initiative relate to the proposed Project:

- In-fill housing
- Promote mixed use development



**Block 8.** Block 8 consists of a surface parking lot (Table IV.A-5).  
**Block 9.** Block 9 contains Giant Burger (a fast food restaurant) and an associated surface parking lot (Table IV.A-5).

**Figure IV.A-5: Aerial Photo: Blocks 8 and 9**

**Table IV.A-5: Existing Uses, Housing Units and Employment for Blocks 8 and 9**

Ref. #	Use	Occupancy Status	Parcel Size (SF)	Building Size (SF/Units)	Estimated Employment
<b>Block 8</b>					
1	Surface parking	Occupied	20,225	0	0
<b>TOTAL BLOCK 8</b>			<b>20,255</b>	<b>0 / 0</b>	<b>0</b>
<b>Block 9</b>					
2	Commercial – Restaurant	Occupied	21,000	2,115	8
<b>TOTAL BLOCK 9</b>			<b>21,000</b>	<b>2,115 / 0</b>	<b>8</b>

Source: Alameda County Assessor’s Office; Hausrath Economic Group; and LSA Associates, 2003.

- Establish transit villages
- Improve quality of existing housing

**e. Central District Urban Renewal Plan.** The Central District Urban Renewal Plan, which was adopted on June 12, 1969 and supplemented for the twelfth time on July 24, 2001, is a comprehensive plan for the redevelopment of downtown Oakland. The overarching goal of the Plan is to “eliminate urban blight within the Project Area through implementation of the concepts described in the Plan.” Developers within the Central District are required to abide by the provisions of the Urban Renewal Plan. The Project site is located within the Uptown Retail Center and Rehabilitation subarea of the Central District. Land uses envisioned for the subarea include a mix of retail and entertainment uses. The Urban Renewal Plan states: “Activities and facilities located within the (Uptown Retail Center and Rehabilitation subarea) should be sited and operated in a manner which supports the creation of a distinctive and vital hub of activity in a pedestrian-friendly environment which complements the unique flavor of the Uptown Area.” The major objectives of the Central District Urban Renewal Plan include the following:

1. Re-establishment of residential areas for all economic levels within specific portions of the Project Area.
2. Improved environmental design within the Project Area, including creation of a definite sense of place, clear gateways, emphatic focal points and physical design which expresses and respects the special nature of each sub-area.
3. Utilization of key transit nodes to support transit-oriented development.
4. Revitalization and strengthening of the Oakland Central District’s historical role as the major regional retail center for the Metropolitan Oakland Area.
5. Provision of adequate infrastructure such as public parking, sidewalks, and traffic control.
6. A strengthening of the Project Area’s existing role as an important office center for administrative, financial, business service and governmental activities.
7. Establishment of the Project Area as an important cultural entertainment center.



**Table IV.A-6: Applicable Land Use Policies**

<b>Land Use and Transportation Element (LUTE)</b>
<b>Policy I/C3.1:</b> Locating Commercial Business. Commercial uses, which serve long term retail needs of regional consumers and which primarily offer durable goods, should be located in areas adjacent to the I-880 freeway or at locations visible or amenable to high volumes of vehicular traffic, and accessible by multiple modes of transportation.
<b>Policy I/C3.3:</b> Clustering Activity in “Nodes.” Retail uses should be focused in “nodes” of activity, characterized by geographic clusters of concentrated commercial activity, along corridors that can be accessed through many modes of transportation.
<b>Policy I/C3.4:</b> Strengthening Vitality. The vitality of existing neighborhood mixed use and community commercial areas should be strengthened and preserved.
<b>Policy I/C3.5:</b> Promoting Culture, Recreation, and Entertainment. Cultural, recreational, and entertainment uses should be promoted within the Downtown, particularly in the vicinity of the Fox and Paramount Theaters, and within the Jack London Square area.
<b>Policy I/C4.1:</b> Protecting Existing Activities. Existing industrial, residential, and commercial activities and areas which are consistent with long term land use plans for the City should be protected from the intrusion of potentially incompatible land uses.
<b>Policy T2.1:</b> Encouraging Transit-Oriented Development. Transit-oriented development should be encouraged at existing or proposed transit nodes, defined by the convergence of two or more modes of public transit such as BART, bus, shuttle service, light rail or electric trolley, ferry, and inter-city or commuter rail.
<b>Policy T2.2:</b> Guiding Transit-Oriented Development. Transit-oriented development should be pedestrian-oriented, encourage night and day time use, provide the neighborhood with needed goods and services, contain a mix of land uses, and be designed to be compatible with the character of surrounding neighborhoods.
<b>Policy T2.3:</b> Promoting Neighborhood Services. Promote neighborhood-serving commercial development within one-quarter to one-half mile of established transit routes and nodes.
<b>Policy T2.3:</b> Linking Transportation and Activities. Link transportation facilities and infrastructure improvements to recreational uses, job centers, commercial nodes, and social services (i.e., hospitals, parks, or community centers).
<b>Policy D5.1:</b> Encouraging Twenty-Four Hour Activity. Activities and amenities that encourage pedestrian traffic during the work week, as well as evenings and weekends should be promoted.
<b>Policy D6.1:</b> Developing on vacant land or to replace surface parking lots should be encouraged throughout the downtown, where possible.
<b>Policy D10.1:</b> Encouraging Housing. Housing in the downtown should be encouraged as a vital component of a 24-hour community presence.
<b>Policy D10.2:</b> Locating Housing. Housing in the downtown should be encouraged in identifiable districts, within walking distance of the 12 <sup>th</sup> Street, 19 <sup>th</sup> Street, City Center, and Lake Merritt BART stations to encourage transit use, and in other locations where compatible with surrounding uses.
<b>Policy D10.6:</b> Creating Infill Housing. Infill housing that respects surrounding development and the streetscape should be encouraged in the downtown to strengthen or create distinct districts.
<b>Policy D11.1:</b> Promoting Mixed-Use Development. Mixed use developments should be encouraged in the downtown for such purposes as to promote its diverse character, provide for needed goods and services, support local art and culture, and give incentive to reuse existing vacant or underutilized structures.
<b>Policy D11.2:</b> Locating Mixed-Use Development. Mixed use development should be allowed in commercial areas, where the residential component is compatible with the desired commercial function of the area.
<b>Policy N1.1:</b> Concentrating Commercial Development. Commercial development in the neighborhoods should be concentrated in areas that are economically viable and provide opportunities for smaller-scale, neighborhood-oriented retail.
<b>Policy N3.2:</b> Encouraging Infill Development. In order to facilitate the construction of needed housing units, infill development that is consistent with the General Plan should take place throughout the City of Oakland.
<b>Policy N5.2:</b> Buffering Residential Areas. Residential areas should be buffered and reinforced from conflicting uses through the establishment of performance-based regulations, the removal of non-conforming uses, and other tools.

Table IV.A-6 (continued)

<b>Land Use and Transportation Element (LUTE)</b>
<b>Policy N8.1:</b> Developing Transit Villages. “Transit Village” areas should consist of attached multi-story development on properties near or adjacent to BART stations or other well-used or high volume transit facilities, such as light rail, train, ferry stations, or multiple-bus transfer locations. While residential units should be encouraged as part of any transit village, other uses may be included where they will not negatively affect the residential living environment.
<b>Policy N8.2:</b> Making Compatible Interfaces Between Densities. The height of development in urban residential and other higher density residential areas should step down as it nears lower density residential areas to minimize conflicts at the interface between the different types of development.
<b>Open Space, Conservation and Recreation Element</b>
<b>Policy OS-4.1:</b> Provision of Useable Open Space. Continue to require new multi-family development to provide useable outdoor open space for its residents.
<b>Policy OS-4.4:</b> Elimination of Blighted Vacant Lots. Discourage property owners from allowing vacant land to become a source of neighborhood blight, particularly in residential areas with large numbers of vacant lots.
<b>Policy OS-11.1:</b> Access to Downtown Open Space. Provide better access to attractive, sunlit open spaces for persons working or living in downtown Oakland. The development of rooftop gardens is encouraged, especially on parking garages.

Source: City of Oakland General Plan Land Use and Transportation Element and Open Space 1998, Conservation and Recreation Element 1996, 2003.

8. Provisions of employment and other economic benefits to disadvantaged persons living within or near the Project Area.
9. Restoration of historically significant structures within the Project Area.

#### 4. Impacts and Mitigation Measures

This subsection analyzes impacts related to land use that could result from implementation of the proposed Project. The subsection begins with the criteria of significance, which establish the thresholds for determining whether an impact is significant. The latter part of this subsection presents the impacts associated with the proposed Project. Conflicts between a project and applicable policies do not constitute physical environmental impacts in and of themselves; as such, the proposed Project’s consistency with applicable policies is discussed separately from the physical land use impacts associated with the proposed Project. However, questions of policy consistency are used to inform analysis of the physical environmental implications of a project. That is, a policy inconsistency is considered to be a significant adverse environmental impact only when it is related to a policy adopted for the purpose of avoiding or mitigating and environmental effect and it is anticipated that the inconsistency would result in a significant adverse *physical* impact. The proposed Project’s consistency with regional policies related to physical environmental topics (e.g., air quality, transportation, and noise) are fully analyzed and discussed in those topical sections of this EIR.

**a. Criteria of Significance.** Implementation of the proposed Project would have a significant effect on land use if it would:

- Physically divide an established community;
- Result in a fundamental conflict between adjacent or nearby land uses; or
- Fundamentally conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local

coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect and actually result in a physical change in the environment.

**b. Land Use Impacts and Mitigation Measures of the Proposed Project.** The following discussion describes land use impacts associated with implementation of the proposed Project.

**(1) Less-than-Significant Land Use Impacts.** Following is a summary of the less-than-significant land use impacts that would result from implementation of the proposed Project.

**Community Integrity.** The physical division of an established community typically refers to the construction of a physical feature (such as an interstate highway or railroad tracks) or removal of a means of access (such as a local road or bridge) that would impair mobility within an existing community, or between a community and outlying areas. For instance, the construction of an interstate highway through an existing community may constrain travel from one side of the community to another; similarly, such construction may also impair travel to areas outside of the community.

The Project site is currently characterized by extensive surface and multi-story parking lots, “super-blocks” unbroken by north/south streets, and vacant or underutilized commercial and residential buildings. The Project site contains a small residential population of approximately 20 persons living in single residence occupancy (SRO) housing. Commercial facilities, such as office uses, restaurants, and convenience stores are dispersed within or in the immediate vicinity of the Project site. Pedestrian access through the Project site is discouraged by the presence of large expanses of parking areas and vacant buildings, thus resulting in large areas of inactivity and no clear pedestrian access. The Project site acts as a barrier to pedestrian access from the southern (more pedestrian-oriented) portion of downtown to commercial and residential areas to the north and west of the Project site.

The proposed Project would result in the demolition of land uses currently within the Project site and the development of a mixed-use neighborhood with approximately 1,300 residential units and 1,050 student beds, approximately 43,000 square feet of commercial space, and a 25,000 square-foot park. An additional north/south street would also be developed within the Project site which would extend from 21<sup>st</sup> Street to 18<sup>th</sup> Street. In addition, existing streets throughout the Project site would be narrowed, and additional traffic-calming features would be developed, including tree wells, parking area tree islands, and special paving.

Although existing land uses within the Project site would be replaced with a mixture of uses, implementation of the proposed Project would not physically divide an established community. Development of the new north/south street would create shorter blocks and a more appealing pedestrian and bicycle environment. The introduction into the Project site of a substantial population (approximately 3,300 persons) and additional commercial uses would increase round-the-clock activity within the Project site and is anticipated to result in increased safety. Streetscape improvements and development of the park would also enhance the pedestrian environment and encourage the movement of people into and through the Project site. In addition, development of higher-density land uses within the Project site would create a seamless boundary between the Project site and surrounding higher-density neighborhoods, and would encourage the movement of people throughout the Uptown District. No physical barriers would be developed within the Project site that would impede access and no existing access would be permanently removed. Therefore, implementation of the proposed

Figure IV.A-6: General Plan land Use and Zoning Designations

8x11 color

back of Figure IV.A-6

Project would enhance the community integrity of Uptown and would not result in a significant impact.

**Compatibility With Surrounding Land Uses.** Land uses surrounding the Project site are generally more intense than land uses within the Project site. As described above, the preponderance of parking lots and vacant buildings within the Project site has resulted in a discontinuity between surrounding neighborhoods and the Project site. Although existing land uses within the Project site are not incompatible with surrounding land uses, existing land uses do not promote the active pedestrian environment that many retail uses in the Uptown District rely upon. In addition, perceptions that the Project site is vacant or underused (due to the presence of vacant lots and the lack of “eyes on the street”) discourage people from visiting the Uptown District.

Implementation of the proposed Project would intensify uses within the Project site, which would increase the cohesiveness of the Uptown District as a whole. Residential, commercial, and open space uses that are proposed as part of the Project are more compatible with surrounding uses than existing land uses within the Project site, which are mainly automobile-oriented. The mixture of uses that is proposed as part of the Project would be compatible with the mixed use districts surrounding the Project site. The introduction of a large residential population into the Project site is also anticipated to increase the viability of the Fox and Paramount Theatres, and is expected to encourage the development of other entertainment-related venues in the Uptown District. The Uptown District, which is located in close proximity to two BART stations and AC Transit bus stops, in addition to major Downtown employment centers, is an appropriate location for high-density land uses. Concentrating traffic-generating uses near transit nodes minimizes vehicle travel through established neighborhoods with minor roadways. In addition, circulation improvements within the Project site would provide enhanced connectivity to destinations surrounding the Project site, including the Civic Center and City Hall.

Proposed land uses would not be adversely affected by surrounding land uses. Surrounding land uses, which comprise commercial, residential, and institutional uses, are not of a type that would result in a fundamental land use conflict with proposed residential and commercial uses. The intensification of uses within the site would benefit surrounding neighborhoods by increasing neighborhood activity and vibrancy; similarly, the proposed Project would be enhanced by the presence of an established mixed use neighborhood in close proximity to the Project site.

**(2) Significant Land Use Impacts.** Implementation of the proposed Project would not result in any significant land use related public policy impacts.

**c. Policy Consistency.** The following discussion describes the consistency of the proposed Project with the applicable land use policies described in the setting section. As noted above, policy inconsistencies are considered significant only when they are anticipated to result in significant physical environmental impacts.

**(1) City of Oakland General Plan.** The proposed Project is generally consistent with the CBD designation for the Project site, which permits high-rise residential, open space, and commercial uses. In addition, the proposed Project would encourage 24-hour activity within and around the Project site and promote nearby cultural and entertainment uses. The proposed Project, which would

promote transit-oriented mixed-use development, strengthen the vitality of the Uptown District, develop infill housing, and develop vacant parking lots, is consistent with the policies of the LUTE.

A minor General Plan amendment (GPA) would be required for the portion of the Project site proposed for development of the park (park land is required to have an Open Space General Plan designation). The redesignation of land set aside for open space is a city requirement and would not represent a policy conflict. The proposed Project, which would provide usable open space to local residents and downtown employees, and would result in the development of vacant, blighted lots, is anticipated to be in compliance with the Open Space, Conservation and Recreation Element.

For a description of the proposed Project's consistency with the Historic Preservation Element, please refer to Section IV.I, Historic Architectural, Archaeological and Paleontological Resources.

**(2) City of Oakland Planning Code.** The proposed Project, which would result in the development of a mixed-use neighborhood, is consistent with the zoning designations for the Project site, which are intended to foster the development of a mixture of medium- and high-density land uses in the vicinity of Downtown Oakland. The proposed Project would also include the development of an approximately 25,000 square foot public park, landscaped streetscapes, and numerous informal open space areas (including courtyards). Therefore, it is anticipated that the proposed Project would be in compliance with the open space requirements of the Downtown Residential Open Space Combining Zone (S-17).

**(3) Sustainable Development Initiative.** The proposed Project, which comprises an infill, mixed-use, transit-oriented development, is consistent with the intent and many of the objectives of the Sustainable Development Initiative, which is a voluntary program.

**(4) Central District Urban Renewal Plan.** The proposed Project would redevelop a site characterized by parking areas and vacant lots with a mixture of commercial, residential, and open space uses. The proposed Project, which would increase pedestrian access within the Project site and re-establish residential areas within the Uptown District, and which utilizes an environmental design-oriented approach to redevelopment, is consistent with the major objectives of the Central District Urban Renewal Plan. Consistent with the Plan, the proposed Project would support "the creation of a distinctive and vital hub of activity in a pedestrian-friendly environment which complements the unique flavor of the Uptown Area."

## B. POPULATION, EMPLOYMENT AND HOUSING

This section describes the local area's existing and projected population, employment and housing statistics and evaluates impacts the Forest City Uptown Project may have on the area's population, employment and/or housing. Mitigation measures are recommended as appropriate.

### 1. Setting

The following sections utilize data from the U.S. Census Bureau, the Association of Bay Area Governments (ABAG), the California Department of Finance (DOF), land use data available at the City of Oakland Community and Economic Development Agency, and land use and employment data provided by Hausrath Economic Group (HEG).<sup>1</sup>

**a. Population.** Oakland is a highly urbanized city on the San Francisco Bay, directly east of San Francisco. It was incorporated in 1852. The City has historically been a mix of a transit/shipping hub with the port, railroad, and airport; educational institutions such as Mills College and the California College of Arts and Crafts; and an independent point of destination with businesses, scenic amenities such as Lake Merritt, and entertainment such as the Grand Lake Theater. From approximately 1852 through 1940, the population of Oakland grew steadily through in-migration and incorporation of adjacent towns and lands. The population boomed during WWII when the Port of Oakland voluntarily turned over to the Armed Forces, and the Oakland Army Base and the Naval Supply Base were developed. From 1945 to 1980, Oakland experienced a decline in population due to changes in the local economy, migration to suburban communities and other factors. Between 1980 and 2000, Oakland experienced significant and sustained population growth as a result of increased job and housing opportunities.

**(1) Total Population.** The City of Oakland had a population of 399,484 persons in 2000 according to the U.S. Census. The City of Oakland estimates that the total population will reach 425,553 by 2010 (a 6.5 percent increase from 2000 to 2010) and 443,203 by 2025 (a 4.1 percent increase from 2010 to 2025). A summary of Oakland population estimates from several sources is provided in Table IV.B-1. Bold typeface indicates estimates used for the purposes of this EIR.

The Project is within the area defined as Downtown Oakland, which had a population of 14,680 persons in 2000 according to the U.S. Census. The City of Oakland estimates that the total population will reach 25,494 by 2010 (a 73.7 percent increase from 2000 to 2010) and 31,001 by 2025 (a 21.6 percent increase from 2010 to 2025). These numbers illustrate that population growth in Downtown Oakland is projected to occur at a faster rate than that for the City as a whole.

The Project site lies within an existing urban area and contains primarily surface parking, with commercial and residential uses along the site periphery. There are currently 34 single-room occupancy (SRO) units located at the Project site, 17 of which are occupied by a total of 20 individuals.<sup>2</sup>

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<sup>1</sup> HEG has modeled existing, short-term (2010) and long term (2025) projections for the City of Oakland to more accurately reflect the level and location of growth, and has provided a more refined data set than what is available from ABAG or DOF. This process is discussed in greater detail in Appendix D.

<sup>2</sup> Jens Hilmer, City of Oakland. Personal communication with Lynette Dias, LSA Associates, Inc., August 2003.



**Table IV.B-1: Population Data, City of Oakland**

Source	2000	2010	2025
US Census 2000	<b>399,484<sup>a</sup></b>	--	--
ABAG Projections 2002	--	423,200	449,500
Oakland Cumulative Scenario 6/9/03 <sup>b</sup>	399,484 <sup>c</sup>	<b>425,553</b>	<b>443,203</b>
Downtown Oakland <sup>d</sup>	14,680 <sup>c</sup>	25,494	31,003

<sup>a</sup> Bold numbers indicate those used for purposes of this EIR.

<sup>b</sup> Oakland Cumulative Growth Scenario for Uptown Project EIR, prepared by HEG 6/9/03.

<sup>c</sup> From 2000 Census.

<sup>d</sup> Bounded by Grand Avenue, Lake Merritt and the Channel, Oakland Estuary, and I-980 and Brush Street.

Source: LSA Associates, Inc. 2003.

**Table IV.B-2: Households Data, City of Oakland**

Source	2000	2010	2025
US Census 2000	<b>150,790<sup>a</sup></b>	--	--
ABAG Projections 2002	--	156,610	168,640
Oakland Cumulative Scenario 6/9/03 <sup>b</sup>	150,790 <sup>c</sup>	<b>158,907</b>	<b>169,012</b>
Downtown Oakland <sup>d</sup>	7,736 <sup>c</sup>	11,826	15,102

<sup>a</sup> Bold numbers indicate those used for purposes of this EIR.

<sup>b</sup> Oakland Cumulative Growth Scenario for Uptown Project EIR, prepared by HEG 6/9/03.

<sup>c</sup> From 2000 Census.

<sup>d</sup> Bounded by Grand Avenue, Lake Merritt and the Channel, Oakland Estuary, and I-980 and Brush Street.

Source: LSA Associates, Inc. 2003.

**(2) Households.** The City of Oakland contained 150,790 households in 2000 according to the U.S. Census. The City of Oakland estimates that the total number of households will reach 158,907 by 2010 (a 5.1 percent increase from 2000 to 2010) and 169,012 by 2025 (a 6.3 percent increase from 2010 to 2025). A summary of Oakland household estimates from several sources is provided in Table IV.B-2. Bold typeface indicates estimates used for the purposes of this EIR.

Downtown Oakland had 7,736 households in 2000 according to the U.S. Census. The City of Oakland estimates that the total number of households will reach 11,826 by 2010 (a 52.9 percent increase from 2000 to 2010) and 15,102 by 2025 (a 27.7 percent increase from 2010 to 2025). As with population growth, households in Downtown Oakland are projected to grow at a faster rate than that for the City as a whole.

Based on a survey conducted by the City of Oakland, there are 34 housing units on the Project site and 17 households.<sup>3</sup>

**b. Employment.** The civilian labor force includes: 1) those who are employed (except in the armed forces); and 2) those who are unemployed but actively seeking employment. Those who have never held a job, who have stopped looking for work, or who have been unemployed for a long period are not considered to be in the labor force.

**(1) Total Jobs.** The City of Oakland had 185,162 total jobs in 2000 according to the U.S. Census. The City of Oakland estimates that the total number of jobs will reach 215,049 by 2010 (a 16.1 percent increase from 2000 to 2010) and 247,497 by 2025 (a 15.1 percent increase from 2010 to 2025). A summary of Oakland job data from several sources is provided in Table IV.B-3. Bold typeface indicates estimates used for the purposes of this EIR.

Downtown Oakland had 65,155 jobs in 2000 according to the U.S. Census. The City of Oakland estimates that the total number of jobs will reach 81,098 by 2010 (a 24.5 percent increase from 2000 to 2010) and 89,543 by 2025 (a 10.4 percent increase from 2010 to 2025).

<sup>3</sup> Ibid.

The Project site contains primarily surface parking, with commercial and residential uses along the site periphery. The commercial uses generally consist of office, restaurants, retail, and auto repair. Based on a survey conducted by the City of Oakland, the number of jobs estimated to exist on the Project site is 247.

**(2) Employed Residents.** The City of Oakland had 174,743 employed residents in 2000 according to the U.S. Census. The City of Oakland estimates that the total number of employed residents will reach 194,038 by 2010 (an 11.0 percent increase from 2000 to 2010) and 225,677 by 2025 (a 16.3 percent increase from 2010 to 2025). A summary of Oakland employed residents data from several sources is provided in Table IV.B-4. Bold typeface indicates estimates used for the purposes of this EIR.

Downtown Oakland had 6,311 employed residents in 2000 according to the U.S. Census. The City of Oakland estimates that the total number of employed residents will reach 11,971 by 2010 (an 89.7 percent increase from 2000 to 2010) and 16,549 by 2025 (a 38.2 percent increase from 2010 to 2025).

**c. Housing Stock.** The housing stock in the City of Oakland is characterized by a majority of single-family homes, a smaller percentage of multi-unit buildings, and relatively low vacancy rates. There were 157,508 housing units in Oakland in 2000 according to the 2000 U.S. Census. Of these, about 45 percent were detached single-family homes, about 4 percent were attached single-family homes, and about 50 percent were units located in multi-unit buildings. Less than one percent of all housing units consisted of mobile homes. According to the 2000 U.S. Census, 41.4 percent of all occupied housing units in Oakland are owner-occupied. The remaining 58.6 percent are renter-occupied. In the City of Oakland, the effective vacancy rate<sup>4</sup> was two percent for owner-occupied housing and 3 percent for renter housing according to the 2000 U.S. Census.

There are 34 rental housing units on the Project site, located within two residential hotels (SRO units). The Assessor's records indicate that there are 11 additional units in the Project site. However, LSA Associates conducted a site visit on July 8, 2003, and found each of these additional units to be vacant. As a result, they were not counted as occupied residences for existing conditions at the Project site.

**Table IV.B-3: Jobs Data, City of Oakland**

Source	2000	2010	2025
US Census 2000	<b>193,950<sup>a</sup></b>	--	--
ABAG Projections 2002	--	215,580	243,500
Oakland Cumulative Scenario 6/9/03 <sup>b</sup>	185,162 <sup>c</sup>	<b>215,049</b>	<b>247,497</b>
Downtown Oakland <sup>d</sup>	65,155 <sup>c</sup>	81,098	89,543

<sup>a</sup> Bold numbers indicate those used for purposes of this EIR.  
<sup>b</sup> *Oakland Cumulative Growth Scenario for Uptown Project EIR*, prepared by HEG 6/9/03.  
<sup>c</sup> From 2000 Census.  
<sup>d</sup> Bounded by Grand Avenue, Lake Merritt and the Channel, Oakland Estuary, and I-980 and Brush Street.  
 Source: LSA Associates, Inc. 2003.

**Table IV.B-4: Employed Residents Data, City of Oakland**

Source	2000	2010	2025
US Census 2000	<b>174,743<sup>a</sup></b>	--	--
ABAG Projections 2002	174,743	183,800 <sup>b</sup>	217,600 <sup>b</sup>
Oakland Cumulative Scenario 6/9/03 <sup>c</sup>	174,743 <sup>c</sup>	<b>194,038</b>	<b>225,677</b>
Downtown Oakland <sup>d</sup>	6,311	11,971	16,549

<sup>a</sup> Bold numbers indicate those used for purposes of this EIR.  
<sup>b</sup> *Oakland Cumulative Growth Scenario for Uptown Project EIR*, prepared by HEG 6/9/03.  
<sup>c</sup> From 2000 Census.  
<sup>d</sup> Bounded by Grand Avenue, Lake Merritt and the Channel, Oakland Estuary, and I-980 and Brush Street.  
 Source: LSA Associates, Inc. 2003.

<sup>4</sup> The percent of dwelling units available for occupancy excluding homes that are boarded up, used only part of the year, or sold or rented and awaiting occupancy.

## 2. Impacts and Mitigation Measures

This section analyzes impacts related to population, employment, and housing that could result from implementation of the proposed Project. The section begins with the criteria of significance, which establish the thresholds to determine whether an impact is significant. The latter part of this section presents the impacts associated with the proposed Project and identifies mitigation measures, as appropriate.

**a. Criteria of Significance.** The proposed Project would have a significant impact on population, employment, and housing if it would:

- Induce substantial population growth in an area, either directly or indirectly;
- Displace a substantial number of existing housing units, necessitating the construction of replacement units elsewhere; or
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

**b. Less-than-Significant Population, Employment and Housing Impacts.** The following discussion examines potential less-than-significant impacts of the proposed Project.

**(1) Induce Substantial Population Growth in an Area.** The proposed Project would generate housing-related population growth and some job-related housing growth, as discussed below.

**Housing-Related Growth.** The proposed Project would add 1,270 housing units and 1,050 Student/Faculty housing units to Oakland's existing housing stock, increasing the population by approximately 3,266. Table IV.B-5 summarizes the types of units proposed and the associated number of residents.

This population growth would represent less than one percent of the City's current population, and is well within both the growth projected by the City's Cumulative Scenario and ABAG's projections for the City over the next five years. Therefore, the Project would not result in substantial direct population growth beyond that planned for the area. In addition, the Project constitutes infill development; the Project is the redevelopment of an underutilized site, and the site is surrounded by existing developments. The Project would not require substantial infrastructure modifications (e.g., construction of new roads, sewer lines) to serve the proposed new residential units or commercial uses and therefore would not result in indirect population growth.

**Job-Related Growth.** Job-related growth would result from the development of up to 33,000 square feet of new retail and commercial space. This development would generate approximately 182 jobs. Table IV.B-6 details the amount of space of each proposed use and the number of jobs it would generate. In addition, as discussed above, there are currently 247 jobs provided by existing uses on the site. It is anticipated that the existing jobs on the Project site would be relocated within the proposed commercial space wherever feasible, and other jobs would be located within the Project vicinity or the greater City of Oakland.

**Table IV.B-5: Population and Employed Residents Estimates for Proposed Project**

Type	Units	Households/ Occ'd Units <sup>a</sup>	Persons Per HH <sup>b</sup>	Estimated Population	Employed Residents (Percent)	Employed Residents Per HH	Estimated Employed Residents
<b>APARTMENTS</b>							
Market Rate Apartments	750	720	1.68	1,207	77	1.30	933
Affordable: Moderate Income (up to 120% AMI)	50	49	1.98	97	73	1.45	71
Affordable: Very Low Income (up to 50% AMI)	200	196	2.21	433	57	1.25	245
<i>Total Apartments</i>	<i>1,000</i>	<i>965</i>	<i>1.80</i>	<i>1,737</i>	<i>72</i>	<i>1.29</i>	<i>1,249</i>
<b>CONDOMINIUMS</b>							
<i>Total Condominiums</i>	<i>270</i>	<i>260</i>	<i>1.85</i>	<i>481</i>	<i>74</i>	<i>1.37</i>	<i>355</i>
<b>STUDENT / FACULTY HOUSING</b>							
Dorm Beds	1,000	1,000	1.00	1,000	33	0.33	333
Faculty Units	50	50	2.00	100	65	1.30	65
<i>Total Student/Faculty Housing</i>	<i>1,050</i>	<i>1,050</i>	<i>--</i>	<i>1,100</i>	<i>--</i>	<i>--</i>	<i>398</i>
<b>TOTAL PROJECT</b>	<b>2,320</b>	<b>2,275</b>	<b>--</b>	<b>3,318</b>	<b>--</b>	<b>--</b>	<b>2,002</b>

<sup>a</sup> Assumes long-term, average vacancy of approximately four percent for market rate housing and two percent for affordable housing consistent with citywide data. No vacancy is assumed for the UC student dormitory and faculty housing.

<sup>b</sup> Estimates by Hausrath Economics Group considering Census data, in-house data and information for new housing developments, and data and projections from Association of Bay Area Governments (ABAG) Projections 2002. Persons per household for affordable housing assume number of persons equals bedrooms plus one for very low income households, as applicable. Persons per household provided is an average of persons per household for studios, one bedroom units, two bedroom units, and three bedroom units.

Source: Hausrath Economics Group, June 5, 2003.

This job-related growth would represent less than one percent of the City's current jobs, and is well within both the growth projected by the City's Cumulative Scenario and ABAG's projections for the City over the next five years. Therefore, the Project would not result in substantial direct population growth beyond that planned for the area. In addition, the Project constitutes infill development; the Project is the redevelopment of an underutilized site, and the site is surrounded by existing developments. The Project would not require substantial infrastructure modifications (e.g., construction of new roads, sewer lines) to serve the proposed new residential units or commercial uses and therefore would not result in indirect population growth.

**Table IV.B-6: Employment Estimates for Proposed Project**

Block/ Bldg	Use	Space (SF)	Employ- ment
3, 4	Ground floor retail/commercial <sup>a</sup>	22,000	63
1, 2, 3, 4, 6	Residential apartments: management and maintenance <sup>b</sup>		26
5	Residential condominiums: management and maintenance		7
7	Ground floor retail/commercial <sup>a</sup>	11,000	31
7	Student housing: management and maintenance		30
9	Relocated Auto Center	10,000	25
<b>TOTAL PROJECT</b>		<b>43,000</b>	<b>182</b>

<sup>a</sup> Assumes a mix of eating and drinking and neighborhood retail and service uses, with an average employment density of 350 square feet per employee.

<sup>b</sup> Includes on-site employment in leasing office, resident-only gym/recreation center, parking garage, etc.

Source: Hausrath Economics Group, June 5, 2003.

**(2) Displace a Substantial Number of Existing Housing Units.** The proposed Project would require the demolition of 34 housing units. Based on the 2000 U.S. Census, this is less than one-tenth of a percent of the housing units or households in Oakland; 34 SRO units is not a substantial number of housing units in Oakland. In addition, the number of housing units constructed would be greater than the number of housing units required to be demolished. The Project includes the construction of up to 1,000 apartments, 270 condominiums, 1,000 dorm beds and 50 faculty housing units. Table IV.B-5 details the types of units proposed and the affordability of each unit. Two-hundred apartments would be rented at the very low income level, 50 would be rented at the moderate income level, and 750 would be rented at market rates. Student/faculty housing would provide 1,050 housing units. The 270 condominiums would be sold at market rate.

The 34 units to be demolished consist of SRO units in two residential hotels. The City of Oakland Planning Code Section 17.102.230 requires a Conditional Use Permit for the demolition of a facility containing units such as the 34 SRO units here. The Project applicant would apply for the Conditional Use Permit under the criteria that the existing buildings are substandard, and 200 very low income units would be developed as part of the proposed Project.

**(3) Displace Substantial Numbers of People.** The proposed Project would include the demolition of existing uses on the site, including two residential hotels. Approximately 20 residents may be displaced. However, it is possible that some of these residents would relocate into the Project after it is constructed as it will provide 1,270 permanent housing units. Included in the proposed residents are 60 very-low income studio apartments, similar to those units being demolished. The actual number of these residents who would have to be relocated as a result of the interim loss of these units has not been quantified. However, the number would not be substantial enough to constitute a significant impact. The Redevelopment Agency will provide relocation assistance consistent with the State's redevelopment regulations.

**c. Significant Population, Employment and Housing Impacts.** Implementation of the proposed Project would not result in any significant population, employment or housing impacts.

## C. HYDROLOGY AND WATER QUALITY

This section describes the existing hydrological setting for the Project site, including runoff, drainage, and water quality based on information available from the City of Oakland, published and unpublished reports, hazard mapping, and on-line resources. Impacts that may result from Project development are identified and mitigation measures to reduce potential impacts are recommended where appropriate.

### 1. Setting

**a. Climate.** The climate of the Oakland area is characterized as dry-summer subtropical (often referred to as Mediterranean), with cool wet winters and relatively warmer dry summers. The mean annual rainfall in the vicinity of the Project site, for the period between 1970 and 2002, was approximately 23.3 inches.<sup>1</sup> Analysis of long-term precipitation records indicates that wetter and drier cycles lasting several years are common in the region. Severe, damaging rain storms occur about once every three years.<sup>2</sup>

**b. Runoff and Drainage.** There are no creeks or streams crossing the Project site, which is relatively flat and largely covered with impervious surfaces (buildings and pavement). Most of the rainfall at the site encounters the impervious surfaces and flows overland into the City-maintained storm drainage system. All the runoff from the Project site parcels eventually discharges to Lake Merritt. In general, at Parcels 1 through 7, storm water flows to the east on the surface (in street-side gutters) along 18<sup>th</sup>, 19<sup>th</sup>, William, and Thomas L. Berkley Way (20<sup>th</sup>) streets. At Telegraph Avenue, the runoff enters drainage inlets and is conveyed underground in a 30-inch pipe to the north. Flow in the 30-inch pipe enters a 45-inch pipe at 21<sup>st</sup> Street and is conveyed east toward Lake Merritt. Runoff from Parcel 8 also enters the underground pipe at Telegraph Avenue. Runoff from Parcel 9 enters a drainage inlet on 22<sup>nd</sup> Street and flows east toward Lake Merritt in a 54-inch concrete pipe.<sup>3</sup>

**c. Flooding.** The Project site is not located within the 100-year flood hazard zone, as mapped by the Federal Emergency Management Agency (FEMA),<sup>4</sup> and therefore, according to FEMA, the site is not susceptible to regional flood hazards. It is possible that blocked storm drains could cause localized flooding during intense storms. The City of Oakland maintains a storm drainage complaint database that documents all localized flooding problems that are reported to the Public Works Department.<sup>5</sup> A recent database printout (June 16, 2003) did not contain any reports of past or current localized flooding problems at or adjacent to the Project site.

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<sup>1</sup> Western Regional Climate Center, 2002, Website: <http://www.wrcc.dri.edu/elimsmsfo.html>.

<sup>2</sup> Brown, William M. III, 1988, "Historical Setting of the Storm: Perspectives on Population, Development, and Damaging Rainstorms in the San Francisco Bay Region," in *Landslides, Floods, and Marine Effects of the Storm of January 3-5, 1982, in the San Francisco Bay Region, California*, Stephen D. Ellen and Gerald F. Wiczorek, Eds., U.S. Geological Survey Professional Paper 1434.

<sup>3</sup> City of Oakland, Storm and Sanitary Sewer Maps, Sheets 221, 222, 238, 1" = 100'.

<sup>4</sup> Federal Emergency Management Agency, 1982, Flood Insurance Rate Map (FIRM), City of Oakland, California, Community Panel Number 065048 0015, September 30.

<sup>5</sup> City of Oakland, 2003, Summary- Storm Drainage Complaints, 39 pages.

The site is not located within an identified dam failure inundation hazard area.<sup>6</sup> Flood water associated with a catastrophic dam failure at the upper and lower Piedmont reservoirs (located about 2.5 miles east of the Project site) would flow several blocks east of the site, not directly affecting the immediate Project site, according to available mapping.

**d. Coastal Hazards.** The location of the Project site (about one mile from Oakland's Inner Harbor) and the elevation of the site (approximately 10 to 20 feet NGVD) would protect the site from coastal hazards, such as tsunamis, extreme high tides, or sea level rise.

**e. Water Quality.** The quality of surface water and groundwater in the vicinity of the Project site is affected by past and current land uses at the site and within the watershed, as well as the composition of geologic materials in the vicinity.

The water quality in Lake Merritt has been affected by urbanization within the watershed and modifications to the tidal connection to the Bay. As described by the Lake Merritt Institute, a non-profit, non-governmental organization involved in maintenance and restoration of Lake Merritt:<sup>7</sup>

*Tidal flows are an important influence on water quality in Lake Merritt. As has been documented in the past, and continues to be documented today, the Lake is dependent upon flushing from the Bay to minimize water quality problems. Restricted tidal flows to and from the Bay can create low oxygen levels, increased temperature extremes, abnormal salinity levels, and other problems.*

Water quality in surface water and groundwater bodies is regulated by the State and Regional Water Quality Control Boards. The Project site is under the jurisdiction of the San Francisco Bay Regional Water Quality Control Board (RWQCB), which is responsible for implementation of State and Federal water quality protection guidelines in the vicinity of the Project site. The RWQCB implements the Water Quality Control Plan (Basin Plan),<sup>8</sup> a master policy document for managing water quality issues in the region. The Basin Plan establishes beneficial water uses for waterways and water bodies within the region.

As noted above, no creeks or streams cross the site. However nearby Lake Merritt is the receiving surface water body for drainage from the site (drainage at the site enters the underground storm sewer which discharges at Lake Merritt). This outfall operates in compliance with a permit granted to Alameda County, pursuant to the National Pollutant Discharge Elimination System (NPDES) Nonpoint Source Program. The County permit requires that specified performance-based water quality standards are upheld by agencies (e.g., City of Oakland Department of Public Works) operating under the permit. The designated beneficial uses for Lake Merritt include contact and non-contact water recreation, fish spawning, and wildlife habitat. Lake Merritt is designated as "impaired" by the RWQCB for floating material and organic enrichment (low dissolved oxygen) under the Clean Water Act Section 303(d).<sup>9</sup> The impairment of Lake Merritt has been assigned a

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<sup>6</sup> Association of Bay Area Governments website (<http://www.abag.ca.gov>).

<sup>7</sup> Lake Merritt Institute, 2003, website: [http://www.lakemerrittinstitute.org/info\\_projects3.html](http://www.lakemerrittinstitute.org/info_projects3.html).

<sup>8</sup> San Francisco Bay Regional Water Quality Control Board, 1995, *Water Quality Control Plan*, 21 June.

<sup>9</sup> State of California, Regional Water Quality Control Board, San Francisco Bay Region, 1998, Section 303(d), Clean Water Act, Impaired Water Body Lists.

“low priority” by the RWQCB on the 303(d) list. The RWQCB is scheduled to begin developing a water quality management plan for Lake Merritt in 2006, completing the plan by 2010.

Runoff water quality is regulated by the Federal National Pollution Discharge Elimination System (NPDES) Nonpoint Source Program (established through the Clean Water Act); the NPDES program objective is to control and reduce pollutants to water bodies from nonpoint discharges. The main nonpoint discharge regulated by the NPDES program is stormwater runoff.

The NPDES Program is administered by the California Regional Water Quality Control Boards. The Project site would be under the jurisdiction of the San Francisco Bay RWQCB and the Alameda Countywide Clean Water Program (ACCWP). The City of Oakland is a participant in the ACCWP. The ACCWP is a function of the County government that maintains compliance with the NPDES Storm Water Discharge Permit and promotes storm water pollution prevention within that context. County compliance with the NPDES Permit is mandated by State and federal laws, statutes, and regulations.

Participating agencies (including the City of Oakland) must comply with the provisions of the County permit by ensuring that new development and redevelopment mitigate, to the maximum extent practicable, water quality impacts to storm water runoff both during construction and operation periods of projects. Alameda County is implementing the current NPDES permit for storm water discharges under the *Alameda Countywide Clean Water Program, Stormwater Management Plan*.<sup>10</sup> Provisions in the plan require that participating agencies:

- Work with concerned citizens to increase community awareness, everyday pollution prevention and creek preservation.
- Work with local businesses to control pollution in storm drains and creeks.
- Monitor and assess pollution problems and health of local creeks and lakes.
- Design practices for city and county government operations that contribute less pollution.

In addition, in 1994 the RWQCB staff developed its *Staff Recommendations for New and Redevelopment Controls for Storm Water Programs*. The *Staff Recommendations* specify the required BMPs for various types and sizes of new development. The proposed Project would be required to comply with the *Staff Recommendations*.

Recent changes to the permit held by the ACCWP are detailed in RWQCB Order R2-2003-0021 (NPDES Permit No. CAS0029831). Revisions that potentially apply to the proposed Project include Provision C.3, which specifies that “Permittees shall require Group 1 Projects to implement appropriate source control and site design measures and to design and implement stormwater treatment measures, to reduce the discharge of stormwater pollutants to the maximum extent practicable. Implementation of this requirement shall begin February 15, 2005.”<sup>11</sup> The proposed Project would be considered a “Group 1 Project.”

<sup>10</sup> Alameda Countywide Clean Water Program, 2003. Stormwater Management Plan, February 19.

<sup>11</sup> Regional Water Quality Control Board, 2003, letter submitted to Ms. Patricia McGowan of the City of Oakland from Brian Wines, RWQCB, March 28.



If construction of the proposed Project is initiated prior to February 15, 2005, the Project would be required to comply with the 1997 *Stormwater Management Plan (SMP)*. However, if construction were initiated after February 15, 2005, the Project would be required to comply with the more stringent requirements of the 2003 permit.<sup>12</sup> Under either scenario, the RWQCB encourages projects to incorporate stormwater controls and treatment measures into all projects to the maximum extent practicable.

## 2. Impacts and Mitigation Measures

This section outlines potential hydrology and water quality impacts and recommends mitigation measures. Less-than-significant impacts to hydrology and water quality are listed first, followed by significant impacts.

**a. Significance Criteria.** The Project would have a significant impact on the environment if it would:

- Violate any water quality standards or waste discharge requirements;
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level;
- Result in substantial erosion or siltation on- or off-site that would affect the quality of receiving waters;
- Result in flooding on- or off-site;
- Create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems;
- Create or contribute runoff which would be an additional source of polluted runoff;
- Otherwise substantially degrade water quality;
- Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;
- Place within a 100-year flood hazard area structures which would impede or redirect flood flows;
- Expose people or structures to a substantial risk of loss, injury or death involving flooding;
- Expose people or structures to a substantial risk of inundation by seiche, tsunami, or mudflow; or
- Fundamentally conflict with elements of the City of Oakland Oakland Creek Protection ordinance intended to protect hydrologic resources. Although there are no specific numeric/quantitative criteria to assess impacts, factors to be considered in determining significance include whether there is substantial degradation of water quality through: (a) discharging a substantial amount of pollutants into a creek; (b) significantly modifying the natural flow of the water or capacity; (c) depositing substantial amounts of new material into a creek or causing substantial bank erosion or instability; or (d) substantially endangering public or private property or threatening public health or safety.

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<sup>12</sup> Wines, Brian, 2003. Water Resources Control Engineer, San Francisco Bay Regional Water Quality Control Board, personal communication with Bruce Abelli-Amen, Baseline Environmental Consulting, June 10.

**b. Less-than-Significant Hydrology and Water Quality Impacts.** Development of the proposed Project would not contribute to depletion of groundwater supplies or reduce the amount or quality of water available for public water supplies. The amount of impervious surfaces would not be substantially altered, and implementation of the proposed Project would not result in flooding on- or off-site. It would not place structures within the 100-year flood hazard area, would not expose people or property to flooding associated with seiches or tsunamis, and would not endanger public or private property or threaten public health or safety as a result of flooding. The proposed Project does not propose development that would substantially alter a natural water course. There are no creeks crossing the site, or nearby, and therefore potential impacts to creeks are considered less than significant.

**c. Significant Hydrology and Water Quality Impacts.** Two potentially significant impacts are evaluated below. With implementation of each recommended mitigation measure, these impacts would be reduced to less-than-significant levels.

**Impact HYD-1: Construction activities for the Project could result in degradation of water quality in Lake Merritt and the Bay by reducing the quality of storm water runoff. (S)**

Construction and grading within the Project site would require temporary disturbance of surface soils and impervious cover. During the construction period, grading and excavation activities would result in exposure of soil to runoff, potentially causing erosion and entrainment of sediment in the runoff. Soil stockpiles and excavated parcels on the Project site would be exposed to runoff and, if not managed properly, the runoff could cause erosion and increased sedimentation in water courses at or away from the Project site. The accumulation of sediment could result in blockage of flows, potentially resulting in increased localized ponding or flooding.

The potential for chemical releases is present at most construction sites. Once released, substances such as fuels, oils, paints, and solvents could be transported to nearby surface waterways and/or groundwater in storm water runoff, wash water, and dust control water, potentially reducing the quality of the receiving waters.

**Mitigation Measure HYD-1:** The applicant shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) designed to reduce potential impacts to surface water quality through the construction and life of the Project. The SWPPP would act as the overall program document to provide measures to mitigate significant water quality impacts associated with implementation of the Project. The SWPPP shall include specific and detailed Best Management Practices (BMPs) required to mitigate significant construction-related pollutants. These controls shall include practices to minimize the contact of construction materials, equipment, and maintenance supplies (e.g., fuels, lubricants, paints, solvents, adhesives) with storm water. The SWPPP shall specify properly designed centralized storage areas that keep these materials out of the rain.

An important component of the storm water quality protection effort will be the education of the site supervisors and workers. To educate on-site personnel and maintain awareness of the importance of storm water quality protection, site supervisors shall conduct regular tailgate

meetings to discuss pollution prevention. The frequency of the meetings and required personnel attendance list shall be specified in the SWPPP.

The SWPPP shall specify a monitoring program to be implemented by the construction site supervisor, and must include both dry and wet weather inspections. City of Oakland personnel shall conduct regular inspections to ensure compliance with the SWPPP.

BMPs to reduce erosion of exposed soil may include, but are not limited to: soil stabilization controls, watering for dust control, perimeter silt fences, placement of hay bales, and sediment basins. The potential for erosion is generally increased when grading occurs during the rainy season, as disturbed soil can be exposed to rainfall and storm runoff. If grading must be conducted during the rainy season, the primary BMPs selected shall focus on erosion control, that is, keeping sediment on the site. End-of-pipe sediment control measures (e.g., basins and traps) shall be used only as secondary measures. Access to and egress from the construction site shall be carefully controlled to minimize off-site tracking of sediment (this BMP is particularly important since much of the earthwork will involve loading trucks for off-site transport of soil excavated for the below-ground parking structures). Vehicle and equipment wash down facilities shall be designed to be accessible and functional both during dry and wet conditions.

The SWPPP shall be reviewed for completeness by the City of Oakland, Public Works Agency, Environmental Services Division prior to approval of grading plans. (LTS)

**Impact HYD-2: Post-construction operation of the Project could result in degradation of water quality in Lake Merritt due to a net decrease in the quality of storm water runoff. (S)**

New construction and intensified land uses at the Project site would result in increased vehicle use in the vicinity of the Project site and potential discharge of associated pollutants. Leaks of fuel or lubricants, tire wear, and fallout from exhaust contribute petroleum hydrocarbons, heavy metals, and sediment to the pollutant load in runoff being transported to receiving waters. Runoff from the proposed common landscaped areas and the parks may contain residual pesticides and nutrients. Long-term degradation of water quality runoff from the site could impact water quality in Lake Merritt and the Bay. On the other hand, since the Project proposes all new parking facilities to be below ground level, storm water runoff from parking facilities would be eliminated, potentially resulting in an improvement in runoff quality from the site relative to existing conditions.

Mitigation Measure HYD-2: The applicant shall comply with the requirements of the 2003 Alameda County *Stormwater Management Plan* and/or the RWQCB Revised Order 01-024 (NPDES Permit No. CAS029718), as appropriate, based on the timing of construction. As applicable, the applicant shall incorporate measures to mitigate potential degradation of runoff water quality from all portions of the completed development, including roof and sidewalk runoff. The final design team for the Project should include all applicable measures from *Start at the Source*, Design Guidance Manual for Stormwater Quality Protection,<sup>13</sup> which may include, but not be limited to pervious pavements, hybrid parking lots, vegetated swales,

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<sup>13</sup> Bay Area Stormwater Management Agencies Association, 1999, *Start at the Source*, Design Guidance Manual for Stormwater Quality Protection

biofilters, roof drainage to landscaped areas, minimization of directly connected impervious surfaces, and infiltration islands.

The Project compliance with requirements for post-construction stormwater controls shall be reviewed by the City of Oakland, Public Works Agency, Environmental Services Division prior to approval of grading plans. (LTS)

**Impact HYD-3: Dewatering effluent may contain contaminants and if not properly managed could cause impacts to the environment. (S)**

Dewatering operations may be required during the excavation for, and construction of, the below-ground parking area. There are two general classes of pollutants that may result from dewatering operations: sediment and chemical compounds (including toxics and petroleum hydrocarbons). High sediment content in dewatering discharges is common because of the nature of the operation in which soil and water mixes in the turbulent flow of high volume pump intakes. Chemical pollutants are most commonly found in dewatering effluent in areas with a history of groundwater contamination (e.g., leaks to the subsurface from industrial sites). Much of the Project site is located in an area of confirmed or potential historic chemical releases (refer to Chapter IV.G, Hazards and Hazardous Materials, for discussion of identified areas of potential subsurface contamination). Direct discharge of dewatering effluent to the storm drainage system could result in water quality impacts to Lake Merritt .

Mitigation Measure HYD-3: The SWPPP shall include requirements for the proper management of dewatering effluent as necessary to mitigate significant impacts to the environment. The Hazards section of this DEIR (Mitigation Measure HAZ-1b) addresses and mitigates potential impacts associated with health and safety impacts to site workers and the public associated with the dewatering effluent.

At minimum, all dewatering effluent will be contained prior to discharge to allow the sediment to settle out, and filtered, if necessary, to ensure that only clear water is discharged to the storm or sanitary sewer system. Alternatively, effluent can be hauled off-site by tanker truck for disposal. Based on the historical land uses at the Project site and groundwater sampling of the existing network of monitoring wells, it is possible that groundwater underlying each of the parcels has been impacted by chemical releases. All dewatering effluent will be analyzed by a State-certified laboratory for the suspected pollutants (at minimum, petroleum hydrocarbons, solvents, and metals) prior to discharge. Based on the results of the analytical testing and the concentrations of pollutants identified, if any, the applicant will dispose of the water in one (or more) of the following ways:

- a) Discharge the water to the storm drain under permit from the RWQCB. It is unlikely that the RWQCB would allow discharge of any untreated dewatering effluent that contained detectable concentrations of chemical pollutants and that for these types of discharges, alternative disposal options may be required;
- b) Discharge the water to the sanitary sewer system under permit from the East Bay Municipal Utilities District;
- c) Haul the water to a licensed off-site disposal facility for treatment and disposal under appropriate manifest.

The Project proponent shall demonstrate to the City of Oakland, Planning and Development Department that appropriate permits have been acquired prior to discharge of any dewatering effluent. (LTS)

## **D. TRANSPORTATION, CIRCULATION AND PARKING**

This section describes the existing traffic and circulation, parking and transit conditions on the Project site and its vicinity and provides an analysis of the Project's potential impacts. Figure IV.D-1 shows the location of the proposed Project and adjacent street system.

This analysis evaluates the traffic-related impacts of the proposed Project during both the weekday morning and evening peak hours. Traffic impacts are assessed at 40 critical intersections in the study area for the following six scenarios:

1. Existing Conditions;
2. Existing plus Project Conditions;
3. Year 2010 Background Conditions Without Project;
4. Year 2010 Background Conditions Plus Project;
5. Year 2025 Conditions Without Project; and
6. Year 2025 Conditions Plus Project.

The Project's potential effects on transit services, pedestrian, and bicycle facilities, and on- and off-street parking are also evaluated. Measures that would mitigate these impacts to a less-than-significant level are recommended.

### **1. Existing Conditions**

The transportation-related context in which the Uptown Project would be constructed and would operate is described below, beginning with a description of the study area and the street network that serves the Project. Next, existing levels of transit service, bicycle and pedestrian facilities, and existing off- and on-street parking in the vicinity of the Project site are described. Intersection and roadway levels of service (LOS) are then defined and current conditions are summarized. The setting subsection then discusses a series of planned transportation improvements that have been assumed to be in place as part of the traffic analysis.

**a. Study Area.** The proposed Project site, illustrated in Figure IV.D-1, is located in downtown Oakland and consists of nine blocks. Blocks 1-6 are located in the area bounded by San Pablo Avenue, Telegraph Avenue, 18<sup>th</sup> Street and Thomas L. Berkley Way (20<sup>th</sup> Street). Block 7 is west of Telegraph Avenue between 20<sup>th</sup> and 21<sup>st</sup> Streets. Block 8 is on the southeast corner of the Telegraph Avenue and Thomas L. Berkley Way (20<sup>th</sup> Street) intersection and Block 9 is on the southwest corner of the Telegraph Avenue/22<sup>nd</sup> Street intersection.

The intersections listed in Table IV.D-1 and illustrated in Figure IV.D-2, were identified as intersections that could be significantly impacted by the proposed Project.

All of the study intersections are signalized, except the San Pablo Avenue/William Street and San Pablo Avenue/18<sup>th</sup> Street intersections which are stop controlled on William Street and 18<sup>th</sup> Street. The 38 signalized study intersections were selected in consultation with the City of Oakland. Locations were chosen based on the signalized intersections where the Project would add 50 or more peak hour trips and where the intersection potentially would operate at an unacceptable level of service.

Figure IV.D-1: Project Location

8x11 B&W

Figure IV.D-2: Study Intersections

8x11



**Table IV.D-1: Intersections Significantly Impacted by Project**

1. San Pablo Avenue/31 <sup>st</sup> Street	20. Broadway/17 <sup>th</sup> Street
2. San Pablo Avenue/Market Street	21. Broadway/15 <sup>th</sup> Street
3. San Pablo Avenue/27 <sup>th</sup> Street	22. Broadway/14 <sup>th</sup> Street
4. San Pablo Avenue/West Street/25 <sup>th</sup> Street	23. Frontage Road/West Grand Avenue
5. San Pablo Avenue/West Grand Avenue	24. Mandela Parkway/West Grand Avenue
6. San Pablo Avenue/Thomas L. Berkley Way (20 <sup>th</sup> Street)	25. Northgate Avenue/West Grand Avenue
7. San Pablo Avenue/William Street	26. Webster Street/Grand Avenue
8. San Pablo Avenue/19 <sup>th</sup> Street	27. Harrison Street/Grand Avenue
9. San Pablo Avenue/18 <sup>th</sup> Street	28. El Embarcadero/Grand Avenue
10. San Pablo Avenue/17 <sup>th</sup> Street	29. Mac Arthur Boulevard/Grand Avenue
11. Telegraph Avenue/West Grand Avenue	30. Mac Arthur Boulevard/Lake Shore Avenue
12. Telegraph Avenue/Thomas L. Berkley Way (20 <sup>th</sup> Street)	31. Lake Park Avenue/Lake Shore Avenue
13. Telegraph Avenue/William Street	32. Brush Street/18 <sup>th</sup> Street
14. Telegraph Avenue/19 <sup>th</sup> Street	33. Castro Street/18 <sup>th</sup> Street
15. Telegraph Avenue/18 <sup>th</sup> Street	34. Martin Luther King Jr. Way/18 <sup>th</sup> Street
16. Telegraph Avenue/17 <sup>th</sup> Street	35. Brush Street/17 <sup>th</sup> Street
17. Broadway/West Grand Avenue	36. Castro Street/17 <sup>th</sup> Street
18. Broadway/Thomas L. Berkley Way (20 <sup>th</sup> Street)	37. Martin Luther King Jr. Way/17 <sup>th</sup> Street
19. Broadway/19 <sup>th</sup> Street	38. Jefferson Street/17 <sup>th</sup> Street
	39. Franklin Street/17th Street
	40. Webster Street/17th Street

Source: Korve Engineering, 2003.

Additionally, the two unsignalized intersections on San Pablo Avenue (intersections 7 and 9) adjacent to the Project were analyzed.

**b. Street Network.** The regional and local street networks that serve the Project site are described below.

**(1) Regional Roadways.** The Project area is primarily served by four regional roadways, as described below.

**Interstate 580 (I-580)** is a regional freeway located east of the Project site, extending between Interstate 80 in Emeryville and Interstate 280 in San Jose. Four lanes are generally provided in each direction on this freeway near the Project area. Trucks are prohibited on I-580 in the downtown Oakland area. Average daily traffic on I-580 between Grand/Van Buren and Oakland/Harrison was 141,000 vehicles in 2002.<sup>1</sup> I-580 extends from Route 5 southwest of Vernalis to I-80 in Oakland via Dublin and Hayward. It is located 18 blocks away from the Project site. The closest ramps from I-580 to the Project site are at the Harrison Street/Oakland Avenue interchange.

**Interstate 880 (I-880)** is a major north-south regional freeway located west of the Project site, extending between Interstate 80 in Emeryville and Interstate 280 in San Jose. Four lanes are

<sup>1</sup> Caltrans, Year 2002 Traffic Volumes on the State Highway System.

generally provided in each direction on this freeway near the Project area. The closest exit from I-880 to the Uptown Project is Broadway (both north and south bound), which is 12 blocks from the Project site. Another freeway access is located further south at Oak Street. Average daily traffic on I-880 north of Broadway was 229,000 vehicles in 2002.<sup>2</sup>

**Interstate 980 (I-980)** is the closest freeway to the Project site and extends from I-880 to I-580/SR-24 in Oakland. I-980 has three lanes in each direction in the general vicinity of the Project area. Average daily traffic on I-980 between 18<sup>th</sup> Street and I-580 was 121,000 vehicles in 2002.<sup>3</sup> To reach the site, vehicles can exit I-980 at the 17<sup>th</sup> Street/18<sup>th</sup> Street interchange, which is only three blocks from the Project. Additional access from I-980 in the study area is provided at 27<sup>th</sup>/Grand and 12<sup>th</sup>/14<sup>th</sup> Street.

**State Route 24 (SR 24)** runs from Walnut Creek in the east to Oakland on the west and has four lanes in each direction near downtown Oakland. Average daily traffic on SR-24 northeast of the 580/980 Junction was 141,000 vehicles in 2002.<sup>4</sup>

**(2) Local Roadways.** A description of the local roadways that serve the Project area is provided below.

**Broadway** is a major arterial that runs in a north-south direction from Jack London Square in the south to State Route 24 (SR 24) to the north. In the vicinity of the Project, Broadway consists of two through lanes in each direction. There are traffic signals at most of the major intersections along Broadway, and separate left and right turn lanes at some key intersections.

**Grand Avenue** runs from I-80 on the west to beyond I-580 to the east. It generally has two lanes in each direction along with a bike lane.

**San Pablo Avenue** borders the west side of the Project site. It begins in downtown Oakland as a cul-de-sac surrounded by a pedestrian area and travels northwesterly through Emeryville, Berkeley, and beyond. San Pablo Avenue generally has two travel lanes in each direction.

**Telegraph Avenue** borders the east side of the Uptown Project. It is a major north-south arterial, beginning at its intersection with Broadway in downtown Oakland and continues north into Berkeley. Generally, there are two through lanes in each direction on Telegraph.

**Martin Luther King Jr. Way** extends from downtown Oakland to Berkeley and is located just to the west of the Uptown Project site. It has two travel lanes in the north and south directions.

**Franklin Street** is a one-way street from 6<sup>th</sup> Street in the south to Broadway north of the Project. Near the Project there are three northbound traffic lanes on Franklin Street. It is located one block east of Broadway. Franklin Street forms a one-way couplet with Webster Street. These two streets

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<sup>2</sup> Ibid.

<sup>3</sup> Ibid.

<sup>4</sup> Ibid.

are designed to carry much of the north/south through traffic in the downtown Oakland area and traffic signals have been coordinated to improve traffic flow.

**Webster Street** is a one-way street with three southbound traffic lanes, and is located one block east of Franklin Street. It provides a direct connection to the City of Alameda via the Webster Tube. Traffic signals on both Franklin and Webster are coordinated to facilitate through traffic on these two key roadways.

**Harrison Street** has four lanes southbound and five lanes northbound between Thomas L. Berkley Way (20<sup>th</sup> Street) and Grand Avenue. There are three lanes each direction on Harrison between Grand Avenue and 27<sup>th</sup> Street, with two lanes each direction north of 27<sup>th</sup> Street and south of Thomas L. Berkley Way (20<sup>th</sup> Street). Harrison is connected to the Posey Tube and is one-way northbound south of 10<sup>th</sup> Street. Harrison Street forms a one-way couplet with Oakland Avenue north of 29<sup>th</sup> Street, with traffic traveling southbound on Harrison and northbound on Oakland.

**William Street** is a westbound one-way street currently and is entirely inside the Project site. There is parking along both sides of the street. Vehicles enter the street from Telegraph Avenue and exit to San Pablo Avenue. The Uptown Project proposes to convert William Street to two-way traffic to improve access to and from the Project.

**14<sup>th</sup> Street** is an arterial roadway located about four blocks south of the Project site. It has two lanes in both the east and west directions and serves as a major east-west route through downtown Oakland. I-980 can be accessed from 14<sup>th</sup> Street.

**17<sup>th</sup> Street** is a one-way roadway in the eastbound direction. It runs from West Street west of I-980 to Lake Merritt. It ranges from two to four lanes in width.

**18<sup>th</sup> Street** forms the southern boundary of the Uptown Project. It runs from Wood Street on the west to Telegraph Avenue on the east. 18<sup>th</sup> Street is a two-way road west of West Street and also between Telegraph Avenue and San Pablo Avenue. It is one-way eastbound between Martin Luther King Jr. Way and San Pablo Avenue and one-way westbound between West Street and Martin Luther King Jr. Way. The two-way portion near the Project has one lane in each direction.

**19<sup>th</sup> Street** is a westbound one-way street which passes through the Project site and forms a couplet with 17<sup>th</sup> Street. It has two traffic lanes in the westbound direction.

**Thomas L. Berkley Way (20<sup>th</sup> Street)** is located on the north side of the site and has two through lanes in each direction. Buses use Thomas L. Berkley Way (20<sup>th</sup> Street) frequently, with 12 buses per hour during most of the day. All of the buses which operate on San Pablo turn onto Thomas L. Berkley Way (20<sup>th</sup> Street) before entering downtown Oakland.

**27<sup>th</sup> Street** a four-lane arterial that extends from Market Street to West Grand Avenue. At the northern end, it connects to the I-980 southbound off-ramp and I-980 northbound on-ramp.

**c. Existing Transit Services.** Existing transit service near the Project site includes bus service provided by the Alameda-Contra Costa Counties Transit District (AC Transit) and Greyhound. It also includes rail services from Bay Area Rapid Transit (BART) and Amtrak. Each of these services is

described in the following sections. A visual summary of transit services provided in the area is presented in Figure IV.D-3.

**(1) AC Transit.** The Project site is served by several AC Transit bus lines running through major north-south corridors: San Pablo Avenue (Line 15, 72, 72M, 72R), Telegraph Avenue (Line 40, 40L, 43) and Broadway (Line 11, 12, 51). No bus lines running east-west go through the Project site. Line 12 is the closest east-west line and runs along Grand Avenue near Lake Merritt. Table IV.D-2 describes the bus route names and service schedules.

AC Transit bus lines connect the Project site to major employment centers such as downtown Berkeley and the Oakland city center. Many bus lines are focused on serving commuter traffic. For example, Line 72R runs along San Pablo with limited stops every 12 minutes. In addition, Line 40L and 51 connect the Project site to the UC Berkeley Campus.

Most of the buses run every 5 to 15 minutes during the peak and 20 to 30 minutes during non-peak periods. The current fare for local bus service in the east bay is \$1.50 for adults, \$0.75 for seniors, the disabled and people between 5 to 17 years of age, and free for children under five.

Information on maximum load points was obtained from various sources compiled by AC Transit Long Range Planning & Data Analysis Department.<sup>5</sup> Table IV.D-3 summarizes current bus service demand near the Project. The table also shows the loading demand/capacity percentages. Southbound lines 40/40L and 72, together with northbound 43 and 51, have the highest maximum loads at 151 to 248 percent of capacity. The bus lines with the lowest loads are northbound lines 11 and 15, with maximum loads of 35 percent and 73 percent, respectively.

The ridership data suggests that bus lines running along major arterials near the site have high maximum demand/capacity ratios and over-crowding may occur. However, new routes and service schedules were implemented in July 2003 to improve bus services. The establishment of the new 72R rapid bus, together with other modifications enhancing the services, has eased some crowding issues.

**(2) BART.** The Bay Area Rapid Transit (BART) is an automated rapid transit system serving the three BART counties of Alameda, Contra Costa, and San Francisco as well as northern San Mateo County. The 19<sup>th</sup> Street/Oakland Station is conveniently located near the Oakland Uptown Project. Three of the five existing BART lines travel through this station:

1. Richmond – Daly City;
2. Richmond – Fremont; and
3. Pittsburg/Bay Point – Millbrae.

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<sup>5</sup> Howard Der, Associate Transportation Planner of AC Transit, compiled the data file from the following sources:

- Fall 1997-Winter 1998 Systemwide Boarding & Alighting Survey
- Summer 2002-Spring 2003 APC Data Collection Units
- April 2001 Line 72 Boarding & Alighting Survey

Figure IV.D-3: Existing Transit Network

8x11

**Table IV.D-2: AC Transit Service Summary**

<b>Transit Line</b>	<b>Route Name</b>	<b>Service Frequency</b>
11	Diamond District – Downtown Oakland – Piedmont	Weekdays: 20 minutes peak and 30 minutes off peak Weekends: 1 hour
12	MacArthur BART to Downtown Oakland	Weekdays: 20 minutes peak and 30 minutes off peak Weekends: 30 minutes
15	Montclair Transit Center – Downtown Oakland – El Cerrito BART (alternate trips to Berkeley BART only)	Weekdays: 15 minutes before 7:30 p.m. and 30 minutes afterwards Weekends: 20-30 minutes
40/40L	Berkeley – Oakland – Bay Fair BART	40L has limited service stops. Weekdays: 5-20 minutes depending on stops Weekends: 20-30 minutes
43	El Cerrito – Eastmont Transit Center	Weekdays: 5-20 minutes depending on stops Weekends: 20-30 minutes during weekends
51	Alameda – Oakland – Berkeley	Weekdays: 10 to 15 minutes peak and 20 minutes off peak. Weekends: 15 to 20 minutes Hourly overnight service from 12 a.m. to 5 a.m. throughout the week
72/72M	Hill Top Mall – Oakland (72) Richmond – Oakland (72M)	Weekdays and weekends: 15 to 18 minutes (frequency of 72 and 72M combined) Hourly overnight service from 12 a.m. to 5 a.m.
72R	Along San Pablo Avenue from Contra Costa College in San Pablo to Jack London Square	Weekdays only 12 minutes from 6 a.m. to 7 p.m.

Source: AC Transit, July 2003.

**BART 19<sup>th</sup> Street Station Layout.** BART 19<sup>th</sup> Street station is the closest BART station to the Project site. The station is located at 1900 Broadway and has six access points:

1. Thomas L. Berkley Way (20<sup>th</sup> Street) (north access);
2. Broadway/20<sup>th</sup> Street (north access);
3. Broadway/ between 19<sup>th</sup> & Thomas L. Berkley Way (20<sup>th</sup> Street) (central access);
4. Broadway/ 19<sup>th</sup> Street (central access);
5. Broadway/17<sup>th</sup> Street (south access); and
6. Telegraph Avenue (south access).

**Table IV.D-3: AC Transit Maximum Load Points**

Line	Dir.	Seat Capacity	AM Peak Hour			PM Peak Hour			Max Load/Cap.
			Max Load	Time	Location	Max Load	Time	Location	
11	NB	40	14	7:33	19 <sup>th</sup> & Broadway	9	10:40	19 <sup>th</sup> & Broadway	35%
	SB	40	13	17:57	19 <sup>th</sup> & Broadway	39	14:40	19 <sup>th</sup> & Broadway	98%
12	NB	Data Not Available							
	SB	Data Not Available							
15	NB	40	29	8:41	20 <sup>th</sup> & San Pablo	22	16:13	20 <sup>th</sup> & Broadway	73%
	SB	Data Not Available							
40/ 40L	NB	45	51	8:40	18 <sup>th</sup> & Telegraph 19 <sup>th</sup> & Telegraph 20 <sup>th</sup> & Telegraph	46	14:10	18 <sup>th</sup> & Telegraph 20 <sup>th</sup> & Telegraph	113%
	SB	45	68	11:46	19 <sup>th</sup> & Telegraph 20 <sup>th</sup> & Telegraph	53	14:40	17 <sup>th</sup> & Telegraph	151%
43	NB	40, 44, 45	62	9:30	18 <sup>th</sup> & Telegraph	64	16:35	18 <sup>th</sup> & Telegraph	160%
	SB	40, 44, 45	53	9:38	17 <sup>th</sup> & Telegraph	43	14:38	17 <sup>th</sup> & Telegraph	133%
51	NB	40, 44	47	8:31	20 <sup>th</sup> & Broadway	99	13:01	20 <sup>th</sup> & Broadway	248%
	SB	40, 44	45	11:31	20 <sup>th</sup> & Broadway	42	13:16	19 <sup>th</sup> & Broadway	113%
72	NB	37, 62, 63	47	6:23	20 <sup>th</sup> & San Pablo 20 <sup>th</sup> & Telegraph	38	15:42	18 <sup>th</sup> & Telegraph 19 <sup>th</sup> & Telegraph	132%
	SB	37, 62, 63	108	11:18	18 <sup>th</sup> & Telegraph 19 <sup>th</sup> & Telegraph 20 <sup>th</sup> & San Pablo 20 <sup>th</sup> & Telegraph	37	16:38	20 <sup>th</sup> & San Pablo	174%

Source: Howard Der, AC Transit Long Range Planning & Data Analysis Department.

BART trains stop two and three levels below the street. Passengers access the concourse level via stairs or escalators from the street level. In the morning, the escalators operate in ‘up’ mode to accommodate the higher number of passengers exiting to the street level. An elevator is available at 1746-1750 Broadway. At the concourse level, each of the north, south, and primary access points has a station agent booth, fare gates, phones, and ticket, change and add-fare machines. The station layout and an inventory of these items are illustrated in Figure IV.D-4.

There are 14 fare gates at the station. Two of these gates were added at the station within the last year. During the morning peak period, four entry gates and 10 exiting gates are open; in the afternoon peak period, 10 entry gates and four exiting gates are open. According to BART, the customer service standard is to clear any passenger within 1 minute with one gate being out of service. Also, the standing queues should not be longer than 15 feet or back to the escalator.<sup>6</sup>

Site observations were conducted during the morning peak in July 2003 to confirm existing operating characteristics at the 19<sup>th</sup> Street Station. The busiest access point is the north access to Thomas L. Berkley Way (20<sup>th</sup> Street), which also has the most fare gates (five exiting gates and two entry gates in the morning). The majority of the passengers take the shorter path to access Thomas L. Berkley Way (20<sup>th</sup> Street) using the three exiting gates to the right of the agent booth, while the two exiting gates to the left of the agent booth are underused.

<sup>6</sup> Dean Leonard, BART Manager of Schedule and Services, telephone communication, January 5, 2001.

Figure IV.D-4: 19th Street BART Station Layout-Concourse Level

size?



Passenger queues of 2 to 5 people were observed but the queue was generally moving and dissipated within 20 seconds. The Broadway/19<sup>th</sup> Street access operates with three exiting gates and one entry gate and is also well used in the morning. The demand at the south accesses at Broadway/17<sup>th</sup> Street and Telegraph Avenue is relatively light. The two south accesses combine to operate with two exiting gates and one entry gate in the morning.

Short queues (2 to 3 people) at station machines were observed due to people having difficulties using the ticketing vending machines or machines malfunctioning.

**BART Ridership.** April and May 2003 weekday entry/exit data was obtained from the Alameda County Planning Department of BART. At the 19<sup>th</sup> Street Station there are approximately 7,700 riders entering and 7,550 riders exiting the station on an average weekday. The morning peak hour at the station occurs between 8:00 a.m. and 9:00 a.m. and the evening peak is 5:00 p.m. to 6:00 p.m., based on the total number of passengers entering and exiting the station hourly.

Table IV.D-4 presents the number of passengers entering and exiting the 19<sup>th</sup> Street BART station during the morning and evening peak hours. As shown in Table IV.D-4, most of the passengers are exiting the station in the morning peak hour and entering the station during the evening peak hour.

**Table IV.D-4: Number of Passengers Using 19<sup>th</sup> Street Station**

Movement	8:00 a.m. to 9:00 a.m.	5:00 p.m. to 6:00 p.m.
Entries	552	1,728
Exits	1,702	489
Total	2,254	2,217

Source: BART, April and May 2003.

In general, queues at the entry/exit gates are longest when trains arrive because passengers alight and leave the station at the same time. Passengers entering the station typically do not create long queues because of the more random arrival pattern. Therefore, the morning exiting data has been analyzed to identify congestion in the station. Richmond-Fremont trains have the most passengers leaving at the 19<sup>th</sup> Street station in the morning peak hour (8am to 9am), with an average of 102 and a maximum of 170 alighting passengers per train. Currently, there are 10 exit gates during the morning peak. Therefore, each gate needs to handle an average of 17 passengers. All passengers can pass through the exit gate in less than 1 minute, which is one of the BART service standards.

Daily passenger loads on different BART lines vary significantly at the 19<sup>th</sup> Street Station. On the higher end, about 17,980 passengers pass through the station on the southbound Pittsburg/Bay Point – Millbrae line. On the lower end, about 3,960 passengers pass through the station on the northbound Fremont-Richmond line. The southbound trains tend to have higher passenger loads than their northbound counterparts. The existing passenger load of each line passing through the 19<sup>th</sup> Street station is summarized in Table IV.D-5.

**Table IV.D-5: Daily Passengers on BART Lines Through 19<sup>th</sup> Street Station**

BART Lines	Number of Passengers Passing through the 19 <sup>th</sup> Street Station
Richmond - Daly City	8,930
Daly City – Richmond	7,848
Richmond – Fremont	4,655
Fremont – Richmond	3,957
Pittsburg/Bay Point – Millbrae	17,973
Millbrae - Pittsburg/Bay Point	16,224
<b>TOTAL</b>	<b>59,587</b>

Source: BART, April and May 2003.

During peak hours, transbay BART lines exhibit significant directional flow characteristics. Most passengers are traveling towards San Francisco in the morning and away from San Francisco in the

evening. The Richmond-Fremont line, however, has a more homogeneous passenger load across time and directions. Tables IV.D-6 and IV.D-7 present detailed information about average midweek (Tuesday, Wednesday and Thursday) peak hour passenger flows and load factors on the BART lines passing through the 19<sup>th</sup> Street BART station, based on data provided by BART.

**(3) Other Public Transportation.** At Jack London Square, Amtrak service is available and includes commuter service between San Jose and Sacramento. In addition, ferries to San Francisco are available at Jack London Square. A Greyhound Terminal is located at 2103 San Pablo Avenue.

**d. Pedestrian and Bicycle Facilities.** A Class I bike path provides a completely separate right-of-way for exclusive use of bicycles and pedestrians. A Class II bike lane provides exclusive usage for bicyclists with “BIKE LANE” marking and solid white striping on the roadway. Typically, striped bike lanes are 5 to 6 feet wide. A Class III bicycle route is established by placing Bike Route signs along the roadway and pavement markings are typically not installed.

Currently, the only bicycle facility located in proximity to the proposed Uptown Project is on Grand Avenue. The type of facility ranges from a Class II bike lane to a Class III bike route (signage only) along different stretches of this road.

Figure IV.D-5 illustrates the proposed bicycle facilities near the Uptown Project that are in the City of Oakland Bicycle Master Plan, adopted in July 1999. This plan recommends Class II bike routes along San Pablo Avenue, Martin Luther King Jr. Way southwest of San Pablo Avenue, Clay Street southwest of San Pablo Avenue, and Thomas L. Berkley Way (20<sup>th</sup> Street) northeast of San Pablo Avenue. Class II bike lanes are shown on Telegraph Avenue and portions of 16<sup>th</sup> and 17<sup>th</sup> Streets. The City of Oakland plans to reconfigure Telegraph Avenue between 16<sup>th</sup> Street and Thomas L. Berkley Way (20<sup>th</sup> Street) from two travel lanes in each direction with parking along each side of the street to a single travel lane each direction with a center left turn lane and a bike lane on each side. The on-street parking will be preserved. This Project is funded and currently in design development.

The existing and proposed bicycle facilities from the Alameda Countywide Bicycle program are presented in Figure IV.D-6. Telegraph Avenue is recommended as a proposed Class II bike route according to the Alameda Countywide Bicycle Program. Limited bicycle parking is available near the 19<sup>th</sup> Street BART station. Two “U”-type bicycle racks, with a total capacity of six bikes, are located at the entrance to the station from Thomas L. Berkley Way (20<sup>th</sup> Street). A single “U” rack with capacity for three bikes is present at the Broadway entrance between 19<sup>th</sup> Street and Thomas L. Berkley Way (20<sup>th</sup> Street). Bicycles are also often locked to the fences at the various entrances to the station.

**e. Parking.** A description of existing on- and off-street parking within the Project vicinity is provided below.

**(1) Off-Street Parking.** As illustrated in Figure IV.D-7, many off-street parking spaces are present in the Project area. On the block bounded by San Pablo Avenue, Telegraph Avenue, 18<sup>th</sup> Street, and 19<sup>th</sup> Street there are 152 surface spaces. One block to the north between 19<sup>th</sup> Street and William Street, there are 758 surface and structure parking spaces. Between William Street and Thomas L. Berkley Way (20<sup>th</sup> Street) there are 321 surface spaces. On the portion of the block west

**Table IV.D-6: Peak Hour Passengers and Load Factors on BART Through 19<sup>th</sup> Street Station – Before Boarding and Alighting**

BART Line	Time	Passengers Per Hour	Average Load (Passengers/BART Car)	Average Load Factors* (Passengers/Seat)
Richmond – Daly City	8-9 a.m.	2,784	71.0	101%
	5-6 p.m.	950	24.3	35%
Daly City – Richmond	8-9 a.m.	944	24.2	35%
	5-6 p.m.	2,517	64.2	92%
Richmond – Fremont	8-9 a.m.	864	44.2	63%
	5-6 p.m.	813	34.8	50%
Fremont – Richmond	8-9 a.m.	1,011	40.2	57%
	5-6 p.m.	791	36.5	52%
Pittsburg/Bay Point – Millbrae	8-9 a.m.	5,264	72.9	104%
	5-6 p.m.	1,115	23.1	33%
Millbrae – Pittsburg/Bay Point	8-9 a.m.	833	20.4	29%
	5-6 p.m.	6,900	77.8	111%

\* Assuming 70 seats per car, which is the average for the BART fleet.

Source: BART, April and May 2003.

**Table IV.D-7: Peak Hour Passengers and Load Factors on BART Through 19<sup>th</sup> Street Station – After Boarding and Alighting**

Bart Line	Time	Passengers Per Hour	Average Load (Passengers/Bart Car)	Average Load Factors* (Passengers/Seat)
Richmond - Daly City	8-9 a.m.	2,813	71.7	102%
	5-6 p.m.	1,166	29.8	43%
Daly City – Richmond	8-9 a.m.	694	17.8	25%
	5-6 p.m.	2,544	64.8	93%
Richmond – Fremont	8-9 a.m.	680	34.8	50%
	5-6 p.m.	1,171	49.2	70%
Fremont – Richmond	8-9 a.m.	653	25.9	37%
	5-6 p.m.	902	41.7	60%
Pittsburg/Bay Point – Millbrae	8-9 a.m.	5,071	70.2	100%
	5-6 p.m.	1,353	28.0	40%
Millbrae - Pittsburg/Bay Point	8-9 a.m.	586	14.3	20%
	5-6 p.m.	7,063	79.7	114%

\* Assuming 70 seats per car, which is the average for the BART fleet.

Source: BART, April and May 2003.

of Telegraph Avenue between 20<sup>th</sup> and 21<sup>st</sup> Streets that will be part of the Uptown Project, there are 11 surface spaces.

A parking survey was conducted on Tuesday June 10, 2003 between 7:00 a.m. and 9:00 a.m. at the City Park Parking Garage, bordered by Telegraph Avenue, San Pablo Avenue, William Street, and 19<sup>th</sup> Avenue. The survey questions requested information about trip origin, trip destination, trip purpose, and frequency of parking in downtown Oakland. Over 220 people participated in the survey.

Figure IV.D-5: Existing and Planned Bicycle Facilities (City of Oakland Recommended Bikeway Network)

8x11

Figure IV.D-6: Existing and Planned Bicycle Facilities (Alameda Countywide Bicycle Program)

8x11

Tables IV.D-8 through IV.D-11 summarize the results of parking survey. The largest percentage of the people parking at the City Park parking garage come from Oakland (36%) and work in downtown Oakland (97%). Over 60 percent of the people surveyed use the garage at least five days a week.

**(1) On-Street Parking.** An inventory of on-street parking in the block bounded by San Pablo Avenue, 18<sup>th</sup> Street, Telegraph Avenue and Thomas L. Berkley Way (20<sup>th</sup> Street) was conducted. Figure IV.D-7 illustrates the available on-street parking in the Project area by parking type and location and Table IV.D-12 presents a summary of total number of on-street parking spaces.

The majority of on-street parking spaces in the study area are either metered parking or free parking with a time limit. Other types of available on-street spaces include unrestricted, service loading (yellow zone), passenger loading (white zone) and handicapped accessible parking (blue zone). The 202 metered parking spaces include 50 two-hour spaces, 50 one-hour spaces and two 30-minutes spaces.

**f. Existing Level of Service Analysis.**

Traffic conditions in the study area are assessed through the evaluation of peak hour Levels of Service (LOS) at critical intersections and freeway segments. The LOS concept qualitatively characterizes traffic conditions associated with varying levels of traffic based on a quantified volume-to-capacity ratio and a measurable estimate of delay based on the degree of congestion. An LOS determination is a measure of congestion, which is the principal measure of roadway service.

**(1) Intersection Level of Service**

**Analysis.** The Levels of Service criteria for signalized and unsignalized intersections are presented in Table IV.D-13. These range from LOS A, which indicates a free-flow condition, to LOS F, which indicates a jammed condition.

**Table IV.D-8: City Park Parking Garage Trip Origins**

Origin	Count	Percentage
Oakland	80	36.2%
Alameda County South	51	23.1%
Contra Costa County – North	35	15.8%
San Francisco/Peninsula	20	9.0%
Alameda County North	14	6.3%
Marin County	9	4.1%
North Bay (Napa, Sonoma, Solano)	6	2.7%
South Bay (Santa Clara, Santa Cruz)	4	1.8%
Contra Costa County - South	2	0.9%
<b>Total</b>	<b>221</b>	<b>100.0%</b>

Source: Korve Engineering, 2003.

**Table IV.D-9: City Park Parking Garage Trip Destination**

Destination	Count	Percentage
Downtown Oakland	213	96.4%
BART to SF	7	3.2%
Refused	1	0.5%
<b>Total</b>	<b>221</b>	<b>100.0%</b>

Source: Korve Engineering, 2003.

**Table IV.D-10: City Park Parking Garage Trip Purpose**

Purpose	Count	Percentage
To Workplace	214	96.8%
Visit Office/Business	3	1.4%
School	3	1.4%
Other	1	0.5%
<b>Total</b>	<b>221</b>	<b>100.0%</b>

Source: Korve Engineering, 2003.

**Table IV.D-11: Parking Frequency at City Park Parking Garage**

Frequency	Count	Percentage
5 or more days per week	146	66.1%
3 to 4 days per week	33	14.9%
1 to 2 days per week	24	10.9%
Less than once a week	16	7.25%
Refused	2	0.9%
<b>Total</b>	<b>221</b>	<b>100.0%</b>

Source: Korve Engineering, 2003.

## Figure IV.D-7: Existing Parking Condition

8x11

Traffic conditions at study intersections are evaluated for the morning and evening peak hours using the methodology of the Transportation Research Board's *1997 Highway Capacity Manual* as required by the City of Oakland. This methodology assigns a level of service based on the total delay experienced by vehicles using the intersection.

**Table IV.D-12: Existing On-Street Parking**

Location	Metered	No Restrictions	Yellow Zone	White Zone	Blue Zone	Total
18 <sup>th</sup> Street from San Pablo to Telegraph	27	4	7	2	0	40
19 <sup>th</sup> Street from San Pablo to Telegraph	39	6	2	0	0	47
William St. from San Pablo to Telegraph	58	0	0	0	0	58
Thomas L. Berkley Way (20 <sup>th</sup> Street) from San Pablo to Telegraph	47	0	3	0	0	50
San Pablo from 18 <sup>th</sup> Street to Thomas L. Berkley Way (20 <sup>th</sup> Street)	30	2	3	1	1	37
Telegraph from 18 <sup>th</sup> Street to Thomas L. Berkley Way (20 <sup>th</sup> Street)	1	5	1	1	0	8
<b>Total</b>	<b>202</b>	<b>17</b>	<b>16</b>	<b>4</b>	<b>1</b>	<b>240</b>

Source: Korve Engineering, 2003.

**Table IV.D-13: Intersection Level of Service Definitions**

Level of Service	Description	Total Delay (seconds/vehicle)	
		Signalized Intersections	Unsignalized Intersections
A	Little or no delay	≤ 10.0	≤ 10.0
B	Short traffic delay	> 10.0 and ≤ 20.0	> 10.0 and ≤ 15.0
C	Average traffic delay	>20.0 and ≤ 35.0	> 15.0 and ≤ 25.0
D	Long traffic delay	> 35.0 and ≤ 55.0	> 25.0 and ≤ 35.0
E	Very long traffic delay	> 55.0 and ≤ 80.0	> 35.0 and ≤ 50.0
F	Extreme traffic delay	> 80.0	> 50.0

Source: Highway Capacity Manual, Special Report 209, Transportation Research Board, 1997.

Figures 1a and 1b, including in Appendix E, illustrate the existing lane geometry and traffic control at the study intersections. Of the 40 study intersections, 38 are signalized. Existing AM and PM peak hour traffic volumes are presented in Figures 2a and 2b (in Appendix E). Weekday traffic counts were collected in 2000 from a number of different studies, and additional counts collected specifically for this study were completed in July 2003. Using 2- to 3-year-old traffic volumes from will likely yield an overestimate of existing volume because traffic volumes were actually higher during the period prior to the current economic recession. All of the traffic counts are also included in Appendix E.

As shown in Table IV.D-14, currently one study intersection (I-880 Frontage Road and West Grand Avenue) operates at LOS E during the PM peak hour and two other study intersections operate at



**Table IV.D-14: Existing Conditions - Intersection Level of Service Summary**

	Intersection	Peak Hour	Existing Conditions		Location (In or Outside of Downtown)
			LOS	Delay/Vehicles (seconds)	
1	San Pablo Ave/31 <sup>st</sup> Street	AM	A	9.1	Out
		PM	A	9.5	
2	San Pablo Ave/Market /25 <sup>th</sup> Street	AM	A	9.2	Out
		PM	A	9.9	
3	San Pablo Ave/27 <sup>th</sup> Street	AM	A	9.6	Out
		PM	B	12.3	
4	San Pablo Ave/West/25 <sup>th</sup> Street	AM	B	18.3	Out
		PM	B	14.5	
5	San Pablo Ave/West Grand Ave	AM	B	15.2	In
		PM	B	16.9	
6	San Pablo Ave/Thomas L. Berkley Way (20 <sup>th</sup> Street)	AM	B	16.5	In
		PM	B	13.1	
7	San Pablo Ave/William Street	AM	A	0.1	In
		PM	A	1.4	
8	San Pablo Ave/19 <sup>th</sup> Street	AM	B	19.6	In
		PM	C	24.7	
9	San Pablo Ave/18 <sup>th</sup> Street	AM	A	2.8	In
		PM	A	2.9	
10	San Pablo Ave/17 <sup>th</sup> Street	AM	B	19.3	In
		PM	B	19.7	
11	Telegraph Ave/West Grand Ave	AM	C	25.2	In
		PM	C	20.0	
12	Telegraph Ave/Thomas L. Berkley Way (20 <sup>th</sup> Street)	AM	B	11.7	In
		PM	B	10.4	
13	Telegraph Ave/William Street	AM	A	2.7	In
		PM	A	2.6	
14	Telegraph Ave/19 <sup>th</sup> Street	AM	B	10.6	In
		PM	B	10.9	
15	Telegraph Ave/18 <sup>th</sup> Street	AM	A	5.0	In
		PM	A	5.6	
16	Telegraph Ave/17 <sup>th</sup> Street	AM	B	11.0	In
		PM	B	9.6	
17	Broadway/West Grand Ave	AM	C	25.0	In
		PM	D	38.4	
18	Broadway/Thomas L. Berkley Way (20 <sup>th</sup> Street)	AM	B	11.8	In
		PM	B	12.4	
19	Broadway/19 <sup>th</sup> Street	AM	B	13.0	In
		PM	B	13.6	
20	Broadway/17 <sup>th</sup> Street	AM	B	13.9	In
		PM	B	12.9	
21	Broadway/15 <sup>th</sup> Street	AM	A	7.2	In
		PM	A	8.5	
22	Broadway/14 <sup>th</sup> Street	AM	B	12.6	In
		PM	B	13.5	
23	Frontage Road/West Grand Ave	AM	C	30.5	Out
		PM	E	57.7	

Table IV.D-14 *continued*

	Intersection	Peak Hour	Existing Conditions		Location (In or Outside of Downtown)
			LOS	Delay/Vehicles (seconds)	
24	Mandela Pkwy/West Grand Ave	AM	B	17.2	Out
		PM	B	19.9	
25	Northgate Ave/West Grand Ave	AM	C	26.2	In
		PM	C	26.5	
26	Webster Street/Grand Avenue	AM	B	17.0	In
		PM	C	22.2	
27	Harrison Street/Grand Avenue	AM	C	22.6	In
		PM	C	27.9	
28	El Embarcadero/Grand Avenue	AM	B	19.0	Out
		PM	C	25.2	
29	MacArthur Blvd/Grand Avenue	AM	C	21.7	Out
		PM	C	27.9	
30	MacArthur Blvd/Lakeshore Ave	AM	B	16.5	Out
		PM	C	23.7	
31	Lake Park Ave/Lakeshore Ave	AM	D	49.3	Out
		PM	C	34.9	
32	Brush Street/18 <sup>th</sup> Street	AM	A	5.7	In
		PM	A	9.4	
33	Castro Street/18 <sup>th</sup> Street	AM	A	7.3	In
		PM	B	14.0	
34	Martin Luther King Jr. Way/18 <sup>th</sup> St.	AM	B	10.6	In
		PM	B	11.9	
35	Brush Street/17 <sup>th</sup> Street	AM	A	7.4	In
		PM	B	10.0	
36	Castro Street/17 <sup>th</sup> Street	AM	C	24.7	In
		PM	C	28.1	
37	Martin Luther King Jr. Way/17 <sup>th</sup> St.	AM	B	11.7	In
		PM	B	10.6	
38	Jefferson Street/17 <sup>th</sup> Street	AM	B	11.3	In
		PM	B	10.3	
39	Franklin Street/17 <sup>th</sup> Street	AM	B	15.4	In
		PM	B	12.5	
40	Webster Street/17 <sup>th</sup> Street	AM	B	10.0	In
		PM	B	10.6	

- Note: 1. Intersections 7 and 9 (San Pablo Avenue/William Street and San Pablo Avenue/18<sup>th</sup> Street) are stop controlled and traffic signals exist at the remaining 38 study intersections.  
 2. Intersections that currently or are projected to operate at a LOS E or F are shaded.  
 3. Intersections located inside the City's downtown planning area are noted as "In" in the location column, and intersections located outside the downtown area are noted as "Out".

Source: Korve Engineering, 2003.

LOS D. All other study intersections currently operate at LOS C or better during both the AM and PM peak hours.

**(2) Freeway Level of Service Analysis.** Tables IV.D-15 and IV.D-16 present the criteria for the freeway level of service based on density and volume-to-capacity ratio, respectively. The two freeway analysis methodologies are used in this report because the City of Oakland uses the volume-to-capacity ratio methodology and Caltrans uses the density methodology to evaluate traffic conditions on the freeway system. The volume-to-capacity ratio methodology required by the City of Oakland is the criteria used to determine if the Project has a significant traffic impact.

Table IV.D-17 summarizes the existing level of service (LOS) on key freeway segments near the Project, based on both the density and volume-to-capacity ratio methodologies. As indicated in the Table IV.D-17, a slightly different LOS is calculated based on the two different analysis methodologies. I-580 currently operates at LOS F in the westbound direction during the morning peak hour and at LOS F in the eastbound direction during the evening peak hour near Grand Avenue based on both analysis methodologies. Based on the density criteria, the other freeway segments operate at LOS D or better during the peak hours. However, based on the volume-to-capacity criteria, some of the freeway segments along I-880 and I-580 currently operate at LOS E.

**g. Planned Transportation Improvements.** The City of Oakland is considering the reconfiguration of Telegraph Avenue between 16<sup>th</sup> Street and Thomas L. Berkley Way (20<sup>th</sup> Street). Currently, Telegraph has two travel lanes in each direction with curbside parking. The plan under construction would create a road with one travel lane in each direction, a center left turn lane, and bike lanes on each side. On-street parking would be preserved. North of Thomas L. Berkley Way (20<sup>th</sup> Street), Telegraph Avenue would not be modified from its current configuration. AC Transit is considering a number of plans to modify Thomas L. Berkley Way (20<sup>th</sup> Street) between Broadway and Telegraph Avenue to improve transit operations. These plans will improve transit operations in this stretch of Thomas L. Berkley Way (20<sup>th</sup> Street) without substantially reducing its vehicular carrying capacity

**2. Analysis Approach**

**a. Overview.** Traffic impacts are assessed at 40 critical intersections in the study area for the following six scenarios:

1. Existing Conditions;
2. Existing plus Project Conditions;
3. Year 2010 Background Conditions Without Project;
4. Year 2010 Background Conditions Plus Project;

**Table IV.D-15: Freeway Level of Service Definitions Based on Density**

LOS	Density Range (Passenger Cars/Km/Lane)
A	0 – 7
B	> 7-11
C	> 11-16
D	> 16 – 22
E	>22 – 28
F	> 28

Source: Page 23-3, Highway Capacity Manual 2000 (Metric).

**Table IV.D-16: Freeway Level of Service Definitions Based on V/C Ratio**

LOS	Volume-to-Capacity Ratio*
A	0 – 0.33
B	> 0.33 – 0.51
C	>0.51 – 0.74
D	> 0.74 – 0.91
E	> 0.91 – 1.00
F	> 1.00

\* Free-flow speed is assumed to be 100 km/hr (~ 70 mile/hr).

Source: Page 23-2, Highway Capacity Manual 2000 (Metric).

**Table IV.D-17: Existing Freeway Level of Service**

Location	Dir	Peak Hour	Density Method		Volume to Capacity Method		
			Density (pc/km/ln)	LOS	Volume/Lane/Hr	V/C	LOS
<b>Interstate 880</b>							
Oak Street/Madison Street	N	AM	18.8	D	1,853	0.93	E
		PM	13.7	C	1,407	0.70	C
	S	AM	13.5	C	1,430	0.71	C
		PM	18.4	D	1,830	0.92	E
Broadway/Jackson Street	N	AM	21.1	D	1,984	0.99	E
		PM	16.1	D	1,296	0.65	C
	S	AM	12.4	C	1,653	0.83	D
		PM	15.8	C	1,627	0.81	D
Junction. I-980/Market Street	N	AM	19.2	D	1,882	0.94	E
		PM	11.9	C	918	0.46	B
	S	AM	8.8	B	1,246	0.62	C
		PM	15.0	C	1,554	0.78	D
<b>Interstate 980</b>							
Junction I-880/6 <sup>th</sup> Street	N	AM	12.5	C	1,334	0.67	C
		PM	14.7	C	1,616	0.81	D
	S	AM	10.1	B	1,038	0.52	C
		PM	8.7	B	928	0.46	B
18th Street/W. Grand Avenue	N	AM	4.9	A	518	0.26	A
		PM	10.5	B	1,222	0.61	C
	S	AM	11.5	C	1,121	0.56	C
		PM	5.8	A	619	0.31	A
<b>State Route 24</b>							
Junction I-580 (42 <sup>nd</sup> /45 <sup>th</sup> Streets)	E	AM	8.9	B	968	0.48	B
		PM	12.8	C	1,632	0.82	D
	W	AM	15.1	C	1,395	0.70	C
		PM	11.1	C	1,205	0.60	C
<b>Interstate 580</b>							
Grand Avenue/Adams Street	E	AM	12.2	C	1,334	0.67	C
		PM	-	F	2,516	1.26	F
	W	AM	-	F	2,400	1.20	F
		PM	13.3	C	1,450	0.73	C
Harrison Street/Piedmont Avenue	E	AM	9.4	B	1,026	0.51	C
		PM	17.4	D	1,934	0.97	E
	W	AM	18.6	D	1,845	0.92	E
		PM	10.2	B	1,115	0.56	C

Note: 1. Roadway capacities assumed to be 2,000 vehicles per hour per lane for freeways.  
 2. The shaded cells indicate an intersection that operates at an unacceptable level.  
 3. Caltrans requires the use of the “density” calculation while the City of Oakland requires the “volume-to-capacity ratio” methodology. Project impacts are assessed based on the “volume-to-capacity” ratio methodology.

Source: Caltrans, 2002; Korve Engineering, 2003.

5. Year 2025 Conditions without Project; and
6. Year 2025 Conditions plus Project.

Intersection traffic volumes for Year 2010 Background are derived through the use of the Alameda County Congestion Management Agency's (ACCMA) Countywide Transportation Demand Model, with land uses within Oakland modified by the Hausrath Economic Group to reflect the City's updated growth scenario for 2010. To generate the "Year 2010 Background plus Project" scenario, traffic associated with the proposed Project is added to 2010 Background volumes. Intersection traffic volumes for Year 2025 conditions are derived using ACCMA's Countywide Transportation Demand model with land uses reflecting the City's updated growth scenario for 2025. To generate Scenario 5, traffic associated with the proposed Project is added to the 2025 baseline traffic volumes.

**b. Project Description.**

**(1) Proposed Land Use.** The proposed Uptown Project will consist of 1,000 apartments, 270 condominium units, 600 student housing apartment units, 50 faculty units, and 33,000 s.f. of retail space. The student units will be marketed particularly to UC-Berkeley students, who will be able to travel to and from campus conveniently using BART. The majority of the Project would be located in an area defined by San Pablo Avenue to the west, Thomas L. Berkley Way (20<sup>th</sup> Street) to the north, Telegraph Avenue to the east, and 18<sup>th</sup> Street to the south. The eastern half of the block between Thomas L. Berkley Way (20<sup>th</sup> Street) and 21<sup>st</sup> Street and San Pablo and Telegraph Avenues is part of the Project, as are parts of two blocks to the northeast as shown in Figure IV.D-1. The historic Fox Theatre on the corner of 18<sup>th</sup> Street and Telegraph Avenue is not part of the redevelopment proposal.

A new north-south road is planned approximately in the middle of the Project. The new road will be 34 feet wide with parking on each side and a single 10-foot travel lane in each direction. An 8-foot sidewalk is planned on each side of the street. At intersections the curb will extend out to the edge of the parking to minimize the distance for pedestrians to cross the street. The new road will be immediately west of the Fox Theatre between 18<sup>th</sup> Street and 19<sup>th</sup> Street. North of 19<sup>th</sup> Street the road will shift west approximately 150 feet and extend north through the Project to 21<sup>st</sup> Street.

On San Pablo Avenue adjacent to the Project, one of the northbound traffic lanes will be replaced with 47 angled parking spaces. No change in the southbound traffic lanes is proposed. Sidewalks in the Project area are designed to encourage pedestrian activity, with 8-foot sidewalks on William Street and 10-foot sidewalks on 18<sup>th</sup>, 19<sup>th</sup> and Thomas L. Berkley Way (20<sup>th</sup> Street).

**(2) Mode Split.** The modal split for trips generated by the proposed Project was developed based on information from the ACCMA model. Approximately 83 percent of all trips would be vehicular trips. BART and AC Transit are expected to serve 62 and 38 percent of the transit trips, respectively. The modal split predicted by the ACCMA model is likely conservative relative to the number of vehicle trips to be generated by the Project. Due to the location and type of Project proposed, it is likely that a higher split to transit will occur; however, the conservative prediction of the model is used in the analysis.

**(3) Trip Generation.** The number of vehicle trips that would be generated by the proposed Project was estimated through a trip generation analysis. Trip generation rates and inbound/outbound splits for the land uses under consideration were taken from the Institute of Transportation Engin-

er's, *Trip Generation Manual, Sixth Edition*. Table IV.D-18 presents the results of the Project's trip generation analysis. Based on the mode split developed for this Project, the manual's trip generation rates were discounted to account for transit trips. The Project trip generation takes into account that vehicle trips are approximately 83 percent of all the trips generated by the proposed Project.<sup>8</sup> In addition, 15 percent of the Project-related retail trips are estimated to be linked trips.

The proposed Project is forecast to result in a daily increase of approximately 11,360 daily vehicle trips. In the morning peak hour, it is forecast to generate approximately 808 vehicle trips (144 inbound and 664 outbound). In the evening peak hour, the Project will generate 1,052 vehicle trips (685 inbound and 367 outbound).

**(4) Trip Distribution.** Vehicle trips forecast to be generated by the proposed Uptown Project were assigned to the surrounding transportation network based on a distribution pattern developed specifically for this study. The pattern is based on information from the ACCMA Model. Figure IV.D-8 illustrates the Project's anticipated trip distribution pattern.

Approximately 22 percent of Project traffic is forecast to arrive from and depart via I-880, with 10 percent oriented north of the Project and 12 percent to and from I-880 south. Approximately 14 percent of Project traffic is expected to arrive from and depart to the northwest via Grand Avenue. Thirteen percent of Project traffic is forecast to arrive and depart to the southeast via I-580. As shown in Figures 4a and 4b in Appendix E, the remainder of the Project traffic is expected to be fairly evenly distributed on the other streets near the Project.

**(5) Site Access.** Access to the planned parking garages for the Uptown Project are illustrated in Figure IV.D-9. As shown in Figure IV.D-9, access to Parcels 1 and 2 will be provided from William Street, access to Parcel 3 will be from Thomas L. Berkley Way (20<sup>th</sup> Street) and William Street, access to Parcel 4 will be from William Street and 19<sup>th</sup> Street, and access to Parcels 5 and 6 will be from the new internal north/south roadway between 18<sup>th</sup> Street and 19<sup>th</sup> Street. The access to the parking garage for Parcel 7 will be on 21<sup>st</sup> Street.

### 3. Environmental Analysis

This section of the EIR contains three key subsections:

- A discussion of **significance criteria** used to determine whether the Project's effects would be considered significant.
- A discussion of the Project's **impacts and mitigation measures**.
- The **Alameda County's Congestion Management Agency's Land Use Analysis**.

**a. Significance Criteria.** The City of Oakland's criteria were used to determine if the Project would result in a significant traffic impact. A project would normally have a significant effect on the environment if it would cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., results in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections), or change the condition of an existing street (i.e., street closures, changing direction of travel) in a manner that

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<sup>8</sup> 83 percent = conservative assumption.

Figure IV.D-8: Project Trip Distribution

8x11

Figure IV.D-9: Site Access

8x11



**Table IV.D-18: Project Trip Generation**

Land Use	Size	AM Peak			PM Peak			Daily		
		In	Out	Total	In	Out	Total	In	Out	Total
Apartments	1,000 DU	82	428	510	415	205	620	3,315	3,315	6,630
Condominiums	270 DU	20	99	119	98	48	146	791	791	1,582
Student Housing <sup>a</sup>	600 DU	49	257	306	249	123	372	1,989	1,989	3,978
Faculty Housing <sup>a</sup>	50 DU	4	21	25	21	10	31	166	166	332
Retail	33,000 sf	21	13	34	59	64	123	708	708	1,416
<b>Subtotal (All Trips)</b>		<b>176</b>	<b>818</b>	<b>994</b>	<b>842</b>	<b>450</b>	<b>1,292</b>	<b>6,969</b>	<b>6,969</b>	<b>13,938</b>
Modal Split <sup>b</sup>										
BART Trips		(17)	(88)	(105)	(86)	(42)	(128)	(685)	(685)	(1,370)
AC Bus Trips		(12)	(64)	(76)	(62)	(31)	(93)	(496)	(496)	(992)
Linked Trips <sup>c</sup>		(3)	(2)	(5)	(9)	(10)	(19)	(106)	(106)	(212)
<b>Total Vehicle Trips</b>		<b>144</b>	<b>664</b>	<b>808</b>	<b>685</b>	<b>367</b>	<b>1,052</b>	<b>5,682</b>	<b>5,682</b>	<b>11,364</b>

<sup>a</sup> The ITE “Apartment” land use category 220 was used to complete the trip generation forecast for the “student and faculty housing” use.

<sup>b</sup> Transit trips are estimated to be 16 percent of all non-student residential trips generated by the proposed Project and 25 percent of the student trips. BART and AC transit are estimated to serve 62 and 38 percent of Project transit trips, respectively, based on the ACCMA’s model.

<sup>c</sup> 15 percent of the retail trips are assumed to be internal linked trips.

Source: ITE, *Trip Generation*, 6<sup>th</sup> Edition, 1997; Korve Engineering, 2003.

would substantially affect access or traffic load and capacity of the street system. Adverse affects to the surrounding transit system were also taken into account. Overloading of the BART or AC Transit system routes would be considered a significant impact.

The specific criteria utilized for this analysis are listed below:

- At a signalized intersection located outside of the downtown area, the Project would cause the existing or future baseline level of service (LOS) to degrade to worse than LOS D.
- At a signalized intersection located within the downtown area, the Project would cause the existing or future baseline level of service (LOS) to degrade to worse than LOS E.
- At a signalized intersection located outside of the downtown area where the existing or future baseline level of service is LOS E, the Project would cause the total intersection average vehicle delay to increase by four or more seconds, or degrade to worse than LOS E (i.e., F).
- At a signalized intersection (in any area), where the existing or future baseline level of service is LOS E, the Project would cause an increase in the average delay for any of the critical movements of six seconds or more, or degrade to worse than LOS E (i.e., F).
- At a signalized intersection (in any area), where the existing or future baseline level of service is LOS F, the Project would cause: (a) the total intersection average vehicle delay to increase by two or more seconds, (b) an increase in average delay for any of the critical movements of four seconds or more, or (c) increase the volume-to-capacity (V/C) ratio by 3 percent (but only if the delay values cannot be measured accurately).

- Cause a roadway segment on the Metropolitan Transportation System to operate at LOS F or increase the V/C ratio by more than 3 percent for a roadway segment that would operate at LOS F without the Project.
- Substantially increase traffic hazards to motor vehicles, bicycles, or pedestrians due to a design feature (e.g., sharp curves or dangerous intersections) that does not comply with Caltrans design standards or incompatible uses (e.g., farm equipment).
- Generate added transit ridership that would increase the average ridership on AC Transit by 3 percent at bus stops where the average load factor with the Project in place would exceed 125 percent over a peak 30-minute period.
- Generate added transit ridership that would increase the peak hour average ridership on BART by 3 percent where the passenger volume would exceed the standing capacity of BART trains.
- Generate added transit ridership that would increase the peak hour average ridership at a BART station by 3 percent where average waiting time at fare gates would exceed 1 minute.

**b. Traffic Operations with Project Analysis.**

**(1) Existing plus Project Traffic Operations.** Figures 3a and 3b in Appendix E illustrate the Existing plus Project traffic volumes. Figures 4a and 4b in Appendix E present the AM and PM peak hour Project traffic volumes at the 40 study intersections. The Project traffic volumes were developed by assigning the peak hour Project traffic presented in Table IV.D-19 to the study intersections based on the Project traffic distribution pattern illustrated in Figure IV.D-8. The Existing plus Project Conditions assume the proposed roadway configuration changes on Telegraph Avenue, San Pablo Avenue and Williams Street.

**Existing plus Project Intersection Level of Service Analysis.** Vehicle trips forecast to be generated by the proposed Uptown Project were assigned to the surrounding transportation network based on a distribution pattern developed specifically for this study. As shown in Table IV.D-19, the Broadway/West Grand Avenue intersection would operate at LOS D during the PM peak hour and LOS C during the AM peak hour with and without traffic associated with the Project. The other study intersections all currently operate at LOS C or better during both the AM and PM peak hours with or without traffic associated with the Project.

**Existing plus Project Conditions Freeway Level of Service Analysis.** The level of service on the freeway system has been evaluated based on the volume-to-capacity ratio methodology utilized by the City of Oakland and the density methodology utilized by Caltrans. The volume-to-capacity ratio methodology used by the City of Oakland is the criteria used to determine if the Project results in a significant traffic impact. Table IV.D-20 summarizes the peak hour freeway level of service analysis in Existing Conditions with and without the proposed Project based on the density methodology. Table IV.D-20 also presents the percentage of Project traffic on each freeway segment that was evaluated. The percentage of Project traffic on the studied freeway segments ranges from 0.00 to 2.52 percent. The addition of Project traffic does not change the service level on any of the freeway segments. Table IV.D-21 presents the existing freeway analysis based on the volume-to-capacity ratio analysis methodology. The addition of Project traffic does not change the LOS on any freeway segment.

**Table IV.D-19: Existing plus Project Intersection Level of Service Summary**

	Intersection	Peak Hour	Intersection LOS (Average Vehicle Delay in Seconds)		Location (In or Outside of Downtown Area)
			Existing	Existing With Project	
1	San Pablo Ave/31 <sup>st</sup> Street	AM	A (9.1)	A (9.1)	Out
		PM	A (9.5)	A (9.6)	
2	San Pablo Ave/Market /25 <sup>th</sup> Street	AM	A (9.2)	A (9.2)	Out
		PM	A (9.9)	A (9.9)	
3	San Pablo Ave/27 <sup>th</sup> Street	AM	A (9.6)	A (9.6)	Out
		PM	B (12.3)	B (12.7)	
4	San Pablo Ave/West/25 <sup>th</sup> Street	AM	B (18.3)	B (20.3)	Out
		PM	B (14.5)	B (14.9)	
5	San Pablo Ave/West Grand Ave	AM	B (15.2)	B (15.7)	In
		PM	B (16.9)	B (18.0)	
6	San Pablo Ave/Thomas L. Berkley Way (20 <sup>th</sup> Street)	AM	B (16.5)	C (20.9)	In
		PM	B (13.1)	C (27.7)	
7	San Pablo Ave/William Street	AM	A (0.1)	A (1.1)	In
		PM	A (1.4)	A (1.5)	
8	San Pablo Ave/19 <sup>th</sup> Street	AM	B (19.6)	C (20.3)	In
		PM	C (24.7)	C (25.8)	
9	San Pablo Ave/18 <sup>th</sup> Street	AM	A (2.8)	A (3.1)	In
		PM	A (2.9)	A (2.9)	
10	San Pablo Ave/17 <sup>th</sup> Street	AM	B (19.3)	B (19.7)	In
		PM	B (19.7)	C (20.4)	
11	Telegraph Ave/West Grand Ave	AM	C (25.2)	C (24.6)	In
		PM	C (20.0)	C (26.7)	
12	Telegraph Ave/Thomas L. Berkley Way (20 <sup>th</sup> Street)	AM	B (11.7)	C (23.6)	In
		PM	B (10.4)	B (16.1)	
13	Telegraph Ave/William Street	AM	A (2.7)	A (7.7)	In
		PM	A (2.6)	A (7.5)	
14	Telegraph Ave/19 <sup>th</sup> Street	AM	B (10.6)	D (45.1)	In
		PM	B (10.9)	D (39.7)	
15	Telegraph Ave/18 <sup>th</sup> Street	AM	A (5.0)	A (7.3)	In
		PM	A (5.6)	A (8.2)	
16	Telegraph Ave/17 <sup>th</sup> Street	AM	B (11.0)	B (11.4)	In
		PM	B (9.6)	B (9.9)	
17	Broadway/West Grand Ave	AM	C (25.0)	C (25.3)	In
		PM	D (38.4)	D (41.0)	
18	Broadway/Thomas L. Berkley Way (20 <sup>th</sup> Street)	AM	B (11.8)	B (11.8)	In
		PM	B (12.4)	B (12.7)	
19	Broadway/19 <sup>th</sup> Street	AM	B (13.0)	B (13.0)	In
		PM	B (13.6)	B (13.7)	
20	Broadway/17 <sup>th</sup> Street	AM	B (13.9)	B (14.7)	In
		PM	B (12.9)	B (13.0)	
21	Broadway/15 <sup>th</sup> Street	AM	A (7.2)	A (6.9)	In
		PM	A (8.5)	A (8.4)	
22	Broadway/14 <sup>th</sup> Street	AM	B (12.6)	B (12.7)	In
		PM	B (13.5)	B (13.8)	
23	Frontage Road/West Grand Ave	AM	C (30.5)	C (30.6)	Out
		PM	E (57.7)	E (58.6)	

Table IV.D-19 *continued*

	Intersection	Peak Hour	Intersection LOS (Average Vehicle Delay in Seconds)		Location (In or Outside of Downtown Area)
			Existing	Existing With Project	
24	Mandela Pkwy/West Grand Ave	AM	B (17.2)	B (17.0)	Out
		PM	B (19.9)	B (19.4)	
25	Northgate Ave/West Grand Ave	AM	C (26.2)	C (30.6)	In
		PM	C (26.5)	C (28.8)	
26	Webster Street/Grand Avenue	AM	B (17.0)	B (19.0)	In
		PM	C (22.2)	C (21.9)	
27	Harrison Street/Grand Avenue	AM	C (22.6)	C (23.7)	In
		PM	C (27.9)	C (29.9)	
28	El Embarcadero/Grand Avenue	AM	B (19.0)	B (19.4)	Out
		PM	C (25.2)	C (26.4)	
29	MacArthur Blvd/Grand Avenue	AM	C (21.7)	C (21.9)	Out
		PM	C (27.9)	C (31.2)	
30	MacArthur Blvd/Lakeshore Ave	AM	B (16.5)	B (16.9)	Out
		PM	C (23.7)	C (25.7)	
31	Lake Park Ave/Lakeshore Ave	AM	D (49.3)	D (50.4)	Out
		PM	C (34.9)	D (38.0)	
32	Brush Street/18 <sup>th</sup> Street	AM	A (5.7)	A (9.2)	In
		PM	A (9.4)	A (10.4)	
33	Castro Street/18 <sup>th</sup> Street	AM	A (7.3)	A (7.8)	In
		PM	B (14.0)	B (16.4)	
34	Martin Luther King Jr. Way/18 <sup>th</sup> St.	AM	B (10.6)	B (10.6)	In
		PM	B (11.9)	B (12.1)	
35	Brush Street/17 <sup>th</sup> Street	AM	A (7.4)	A (7.6)	In
		PM	B (10.0)	B (10.2)	
36	Castro Street/17 <sup>th</sup> Street	AM	C (24.7)	C (25.6)	In
		PM	C (28.1)	C (29.4)	
37	Martin Luther King Jr. Way/17 <sup>th</sup> St.	AM	B (11.7)	B (11.8)	In
		PM	B (10.6)	B (10.7)	
38	Jefferson Street/17 <sup>th</sup> Street	AM	B (11.3)	B (11.3)	In
		PM	B (10.3)	B (10.4)	
39	Franklin Street/17 <sup>th</sup> Street	AM	B (15.4)	B (18.3)	In
		PM	B (12.5)	B (13.3)	
40	Webster Street/17 <sup>th</sup> Street	AM	B (10.0)	B (10.6)	In
		PM	B (10.6)	B (10.9)	

- Note: 1. Intersections 7 and 9 (San Pablo Avenue/William Street and San Pablo Avenue/18<sup>th</sup> Street) are stop controlled and traffic signals exist at the remaining 38 study intersections.  
 2. Intersections that currently or are projected to operate at a LOS E or F are shaded.  
 3. Intersections located inside the City's downtown planning area are noted as "In" in the location column, and intersections located outside the downtown area are noted as "Out".

Source: Korve Engineering, 2003.

**Table IV.D-20: Summary of Existing plus Project Freeway Density LOS Analysis**

Freeway/Segment	Dir.	Peak Hour	Existing		Existing with Project		Percent Project Volume
			LOS	Density (pc/km/ln)	LOS	Density (pc/km/ln)	
<b>Interstate 880</b>							
Oak Street/Madison Street	N	AM	D	18.8	D	18.9	0.39%
		PM	C	13.7	C	13.9	0.98%
	S	AM	C	13.5	C	13.6	0.63%
		PM	D	18.4	D	18.5	0.33%
Broadway/Jackson Street	N	AM	D	21.1	D	21.3	0.41%
		PM	D	16.1	D	16.2	0.95%
	S	AM	C	12.4	C	12.5	0.68%
		PM	C	15.8	C	15.8	0.37%
Junction. I-980/Market Street	N	AM	D	19.2	D	19.2	0.00%
		PM	C	11.9	C	11.9	0.00%
	S	AM	B	8.8	B	8.8	0.00%
		PM	C	15.0	C	15.0	0.00%
<b>Interstate 980</b>							
Junction I-880/6 <sup>th</sup> Street	N	AM	C	12.5	C	12.7	1.54%
		PM	C	14.7	C	15.1	2.52%
	S	AM	B	10.1	B	10.3	1.37%
		PM	B	8.7	B	8.9	1.62%
18th Street/W. Grand Avenue	N	AM	A	4.9	A	4.9	0.94%
		PM	B	10.5	B	10.6	0.60%
	S	AM	C	11.5	C	11.5	0.00%
		PM	A	5.8	A	5.8	0.00%
<b>State Route 24</b>							
Junction I-580 (42 <sup>nd</sup> /45 <sup>th</sup> Streets)	E	AM	B	7.5	B	7.5	0.77%
		PM	C	14.9	C	15	0.50%
	W	AM	D	16.7	D	16.8	0.23%
		PM	B	9.0	B	9.1	0.77%
<b>Interstate 580</b>							
Grand Avenue/Adams Street	E	AM	C	12.2	C	12.2	0.00%
		PM	F	-	F	-	0.13%
	W	AM	F	-	F	-	0.05%
		PM	C	13.3	C	13.3	0.19%
Harrison Street/Piedmont Avenue	E	AM	B	9.2	B	9.2	0.00%
		PM	D	17.7	D	17.7	0.09%
	W	AM	D	18.9	D	18.9	0.05%
		PM	B	9.9	B	9.9	0.20%

- Note: 1. Traffic volumes in the Year 2010 No Project scenario are based on the ACCMA's model.  
 2. Segments that currently or are projected to operate at a LOS E or F are shaded.  
 3. Caltrans requires the use of the "density" calculation while the City of Oakland requires the "volume-to-capacity ratio" methodology. Project impacts are assessed based on the "volume-to-capacity" ratio methodology.

Source: Korve Engineering, 2003.

**Table IV.D-21: Summary of Existing plus Project Conditions Freeway Volume to Capacity LOS Analysis**

Freeway/Segment	Dir.	Peak Hour	Existing			Existing With Project		
			LOS	V/C	Volume/ Lane/ Hour	LOS	V/C	Volume/ Lane/ Hour
<b>Interstate 880</b>								
Oak Street/Madison Street	N	AM	E	0.93	1,853	E	0.93	1,861
		PM	C	0.71	1,430	C	0.72	1,444
	S	AM	C	0.70	1,407	C	0.71	1,415
		PM	E	0.92	1,830	E	0.92	1,836
Broadway/Jackson Street	N	AM	E	0.99	1,984	E	1.00	1,992
		PM	D	0.83	1,653	D	0.83	1,668
	S	AM	C	0.65	1,296	C	0.65	1,305
		PM	D	0.81	1,627	D	0.82	1,633
Junction. I-980/Market Street	N	AM	E	0.94	1,882	E	0.94	1,882
		PM	C	0.62	1,246	C	0.62	1,246
	S	AM	B	0.46	918	B	0.46	918
		PM	D	0.78	1,554	D	0.78	1,554
<b>Interstate 980</b>								
Junction I-880/6 <sup>th</sup> Street	N	AM	C	0.67	1,334	C	0.68	1,354
		PM	D	0.78	1,557	D	0.80	1,597
	S	AM	C	0.54	1,078	C	0.55	1,092
		PM	B	0.46	928	B	0.47	944
18th Street/W. Grand Avenue	N	AM	A	0.26	518	A	0.26	523
		PM	C	0.56	1,121	C	0.56	1,127
	S	AM	C	0.61	1,222	C	0.61	1,222
		PM	A	0.31	619	A	0.31	619
<b>State Route 24</b>								
Junction I-580 (42 <sup>nd</sup> /45 <sup>th</sup> Streets)	E	AM	B	0.41	815	B	0.41	821
		PM	D	0.81	1,618	D	0.81	1,626
	W	AM	D	0.89	1,785	D	0.89	1,790
		PM	B	0.49	982	B	0.49	990
<b>Interstate 580</b>								
Grand Avenue/Adams Street	E	AM	C	0.67	1,334	C	0.67	1,334
		PM	F	1.20	2,400	F	1.20	2,403
	W	AM	F	1.26	2,516	F	1.26	2,517
		PM	C	0.73	1,450	C	0.73	1,453
Harrison Street/Piedmont Avenue	E	AM	B	0.50	1,007	B	0.50	1,007
		PM	E	0.94	1,873	E	0.94	1,875
	W	AM	E	0.98	1,953	E	0.98	1,954
		PM	C	0.54	1,087	C	0.54	1,089

- Note: 1. Roadway capacities assumed to be 2,000 vehicles per hour per lane for freeways.  
 2. Segments that currently or are projected to operate at a LOS E or F are shaded.  
 3. Caltrans requires the use of the “density” calculation while the City of Oakland requires the “volume-to-capacity ratio” methodology. Project impacts are assessed based on the “volume-to-capacity” ratio methodology.

Source: Korve Engineering, 2003.

**Existing plus Project Conditions Impacts and Mitigation Measures.** The Uptown Project was not found to significantly impact the freeway system in the Existing plus Project condition. The additional trips generated by proposed Project will increase delays at the study intersections during the peak periods. However, based on the significance criteria described in this report and the existing plus Project traffic analysis, the Uptown Project would not result in significant adverse impacts to any intersections under the Existing plus Project scenario.

**(2) Year 2010 Traffic Operations.** Based on the Alameda County Congestion Management Agency's (ACCMA) Countywide Transportation Demand Model's forecasts, increases in traffic levels at each study intersection were estimated. Figures 5a and 5b in Appendix E illustrate the Year 2010 Baseline traffic volumes without the proposed Project. The Year 2010 Baseline traffic volumes were developed based on growth factors developed from the ACCMA model data and reflect the increase in traffic from all planned development that would impact the study area. Figures 6a and 6b in Appendix E present the AM and PM peak hour Project traffic volumes at the 40 study intersections. The Project traffic volumes were developed by assigning the peak hour Project traffic presented in Table IV.D-18 to the study intersections based on the Project traffic distribution pattern illustrated in Figure IV.D-8. Figures 6a and 6b in Appendix E illustrate the Year 2010 Baseline plus Project traffic volumes.

**Intersection Level of Service Analysis.** As illustrated in Table IV.D-22, the anticipated growth in traffic to the Year 2010 without the proposed Uptown Project is expected to result in the Frontage Road/West Grand Avenue intersection operating at LOS F and the Lake Park Avenue/Lake Shore Avenue intersection operating at LOS E. The other 38 study intersections are expected to operate at LOS D or better during both the morning and evening peak hours.

The addition of the Uptown Project traffic to the "Year 2010 Baseline" results in two study intersections operating at LOS E and three intersections operating at LOS F, based on existing signal timing. However, optimizing the signal timing improves all the study intersections to a satisfactory condition (LOS D or better), except the Frontage Road/Grand Avenue intersection which is forecast to operate at LOS F during the evening peak hour in 2010 with or without the Uptown Project. Level of Service calculation worksheets for each of the traffic analysis scenarios are attached in Appendix B.

**Freeway Level of Service Analysis.** The level of service on the freeway system has been evaluated based on the volume-to-capacity ratio methodology utilized by the City of Oakland and the density methodology utilized by Caltrans. Table IV.D-23 summarizes the peak hour freeway level of service analysis in 2010 with and without the proposed Project based on the density methodology. Table IV.D-23 also presents the percentage of Project traffic on each freeway segment that was evaluated. The percentage of Project traffic on the studied freeway segments in 2010 ranges from 0.00 to 2.46 percent. The few segments on I-880 and I-980 where the Project will add more than 1 percent to the background 2010 volume all operate at an acceptable level of service. Therefore, the proposed Project does not significantly impact the freeway system. Table IV.D-24 presents the 2010 freeway analysis based on the volume-to-capacity analysis methodology.

As shown in Table IV.D-24, the addition of Project traffic theoretically changes the LOS on I-880 near Oak Street from LOS E to F. At this location the volume-to-capacity ratio is 1.00 both with and without the Project traffic, but with the addition of Project traffic it slightly exceeds 1.00 (the calculated v/c ratio is 1.00018). The Project only increases the traffic by 0.36 percent at this location

**Table IV.D-22: 2010 Intersection Level of Service Summary**

	Intersection	Peak Hour	Intersection LOS (Average Vehicle Delay in Seconds)			Location (In or Outside of Downtown Area)
			Existing	Year 2010 No Project	Year 2010 With Project	
1	San Pablo Ave/31 <sup>st</sup> Street	AM	A (9.1)	A (9.8)	A (9.8)	Out
		PM	A (9.5)	B (10.7)	B (10.7)	
2	San Pablo Ave/Market / 25 <sup>th</sup> Street	AM	A (9.2)	B (10.2)	B (10.1)	Out
		PM	A (9.9)	B (11.0)	B (10.9)	
3	San Pablo Ave/27 <sup>th</sup> Street	AM	A (9.6)	B (10.3)	B (10.4)	Out
		PM	B (12.3)	C (26.0)	C (28.2)	
4	San Pablo Ave/West/25 <sup>th</sup> Street	AM	B (18.3)	C (20.5)	C (20.7)	Out
		PM	B (14.5)	B (15.7)	B (16.1)	
5	San Pablo Ave/West Grand Ave	AM	B (15.2)	B (16.3)	B (16.9)	In
		PM	B (16.9)	B (19.9)	C (24.5)	
6	San Pablo Ave/Thomas L. Berkley Way (20 <sup>th</sup> Street)	AM	B (16.5)	B (18.0)	C (21.9)	In
		PM	B (13.1)	C (26.5)	F (85.4)	
7	San Pablo Ave/William Street	AM	A (0.1)	A (0.1)	A (1.0)	In
		PM	A (1.4)	A (1.5)	A (1.5)	
8	San Pablo Ave/19 <sup>th</sup> Street	AM	B (19.6)	C (20.0)	C (20.5)	In
		PM	C (24.7)	C (25.2)	C (27.4)	
9	San Pablo Ave/18 <sup>th</sup> Street	AM	A (2.8)	A (2.9)	A (3.0)	In
		PM	A (2.9)	A (2.2)	A (2.4)	
10	San Pablo Ave/17 <sup>th</sup> Street	AM	B (19.3)	C (20.2)	C (20.7)	In
		PM	B (19.7)	A (19.3)	C (20.1)	
11	Telegraph Ave/West Grand Ave	AM	C (25.2)	D (48.5)	E (56.4)	In
		PM	C (20.0)	C (27.0)	D (38.6)	
12	Telegraph Ave/Thomas L. Berkley Way (20 <sup>th</sup> Street)	AM	B (11.7)	C (21.1)	D (43.1)	In
		PM	B (10.4)	B (18.4)	C (22.3)	
13	Telegraph Ave/William Street	AM	A (2.7)	B (11.9)	B (18.5)	In
		PM	A (2.6)	A (6.2)	B (11.3)	
14	Telegraph Ave/19 <sup>th</sup> Street	AM	B (10.6)	D (52.9)	F (114.9)	In
		PM	B (10.9)	D (43.5)	F (81.5)	
15	Telegraph Ave/18 <sup>th</sup> Street	AM	A (5.0)	A (6.7)	A (8.0)	In
		PM	A (5.6)	A (7.6)	A (9.5)	
16	Telegraph Ave/17 <sup>th</sup> Street	AM	B (11.0)	B (11.3)	B (11.9)	In
		PM	B (9.6)	B (10.4)	B (10.7)	
17	Broadway/West Grand Ave	AM	C (25.0)	C (28.2)	C (29.5)	In
		PM	D (38.4)	D (49.8)	E (55.5)	
18	Broadway/Thomas L. Berkley Way (20 <sup>th</sup> Street)	AM	B (11.8)	B (13.5)	B (13.6)	In
		PM	B (12.4)	B (12.6)	B (13.0)	
19	Broadway/19 <sup>th</sup> Street	AM	B (13.0)	B (13.4)	B (13.4)	In
		PM	B (13.6)	B (14.5)	B (14.6)	
20	Broadway/17 <sup>th</sup> Street	AM	B (13.9)	B (16.0)	B (17.6)	In
		PM	B (12.9)	B (13.9)	B (14.1)	
21	Broadway/15 <sup>th</sup> Street	AM	A (7.2)	A (7.8)	A (7.5)	In
		PM	A (8.5)	A (8.9)	A (8.8)	
22	Broadway/14 <sup>th</sup> Street	AM	B (12.6)	B (12.8)	B (12.9)	In
		PM	B (13.5)	B (14.1)	B (14.3)	
23	Frontage Road/West Grand Ave	AM	C (30.5)	C (33.0)	C (33.9)	Out
		PM	E (57.7)	F (103.4)	F (106.4)	
24	Mandela Pkwy/West Grand Ave	AM	B (17.2)	B (18.1)	B (17.9)	Out
		PM	B (19.9)	C (23.3)	C (23.5)	
25	Northgate Ave/West Grand Ave	AM	C (26.2)	C (31.0)	C (34.5)	In
		PM	C (26.5)	D (45.3)	D (52.0)	



Table IV.D-22 *continued*

	Intersection	Peak Hour	Intersection LOS (Average Vehicle Delay in Seconds)			Location (In or Outside of Downtown Area)
			Existing	Year 2010 No Project	Year 2010 With Project	
26	Webster Street/Grand Avenue	AM	B (17.0)	C (24.4)	D (37.1)	In
		PM	C (22.2)	C (23.9)	C (24.1)	
27	Harrison Street/Grand Avenue	AM	C (22.6)	C (25.1)	C (26.6)	In
		PM	C (27.9)	D (48.3)	D (52.3)	
28	El Embarcadero/Grand Avenue	AM	B (19.0)	B (19.4)	B (19.8)	Out
		PM	C (25.2)	C (29.2)	C (31.2)	
29	MacArthur Blvd/Grand Avenue	AM	C (21.7)	C (22.5)	C (22.7)	Out
		PM	C (27.9)	C (29.8)	C (34.1)	
30	MacArthur Blvd/Lakeshore Ave	AM	B (16.5)	B (16.8)	B (17.2)	Out
		PM	C (23.7)	C (24.3)	C (26.3)	
31	Lake Park Ave/Lakeshore Ave	AM	D (49.3)	E (70.6)	E (73.7)	Out
		PM	C (34.9)	D (37.4)	D (41.1)	
32	Brush Street/18 <sup>th</sup> Street	AM	A (5.7)	A (7.0)	B (10.4)	In
		PM	A (9.4)	A (9.7)	B (10.7)	
33	Castro Street/18 <sup>th</sup> Street	AM	A (7.3)	A (7.9)	A (8.5)	In
		PM	B (14.0)	D (47.6)	D (57.6)	
34	Martin Luther King Jr. Way/ 18 <sup>th</sup> St.	AM	B (10.6)	B (11.1)	B (11.0)	In
		PM	B (11.9)	B (13.8)	B (14.2)	
35	Brush Street/17 <sup>th</sup> Street	AM	A (7.4)	A (8.3)	A (8.5)	In
		PM	B (10.0)	B (10.5)	B (10.6)	
36	Castro Street/17 <sup>th</sup> Street	AM	C (24.7)	C (24.9)	C (25.9)	In
		PM	C (28.1)	C (29.7)	C (31.5)	
37	Martin Luther King Jr. Way/ 17 <sup>th</sup> St.	AM	B (11.7)	B (12.1)	B (12.2)	In
		PM	B (10.6)	B (10.9)	B (11.0)	
38	Jefferson Street/17 <sup>th</sup> Street	AM	B (11.3)	B (11.5)	B (11.6)	In
		PM	B (10.3)	B (10.6)	B (10.6)	
39	Franklin Street/17 <sup>th</sup> Street	AM	B (15.4)	C (29.4)	D (42.8)	In
		PM	B (12.5)	C (24.5)	C (30.0)	
40	Webster Street/17 <sup>th</sup> Street	AM	B (10.0)	B (11.2)	B (12.0)	In
		PM	B (10.6)	B (11.7)	B (12.2)	

- Note:
1. Intersections 7 and 9 (San Pablo Avenue/William Street and San Pablo Avenue/18<sup>th</sup> Street) are stop controlled and traffic signals exist at the remaining 38 study intersections.
  2. Intersections that currently or are projected to operate at a LOS E or F are shaded.
  3. Intersections located inside the City's downtown planning area are noted as "In" in the location column, and intersections located outside the downtown area are noted as "Out".

Source: Korve Engineering, 2003.

as shown in Table IV.D-24 and therefore the Project is not expected to significantly impact the freeway operations. No other changes in level of service on the studied freeway segments are anticipated with the addition of Uptown Project traffic.

**Year 2010 Impacts and Mitigation Measures.** The Uptown Project will not significantly impact the freeway system. The additional trips generated by proposed Project will deteriorate service levels at some of the study intersections during the peak periods. Based on the significant traffic impact criteria described in this report and the 2010 traffic analysis, the Uptown Project will have a significant impact at three study intersections. Table IV.D-25 summarizes the delay and level of service at

**Table IV.D-23: Summary of Year 2010 Freeway Density LOS Analysis**

Freeway/Segment	Dir.	Peak Hour	No Project		With Project		Percent Project Volume
			LOS	Density (pc/km/ln)	LOS	Density (pc/km/ln)	
<b>Interstate 880</b>							
Oak Street/Madison Street	N	AM	D	21.4	D	21.5	0.36%
		PM	C	15.9	D	16.1	0.85%
	S	AM	C	15.8	C	15.9	0.54%
		PM	D	20.3	D	20.4	0.31%
Broadway/Jackson Street	N	AM	E	26.3	E	26.6	0.38%
		PM	D	19.0	D	19.3	0.84%
	S	AM	C	14.4	C	14.5	0.59%
		PM	D	16.9	D	17.0	0.35%
Junction. I-980/Market Street	N	AM	E	26.5	E	26.5	0.00%
		PM	C	15.0	C	15.0	0.00%
	S	AM	C	11.7	C	11.7	0.00%
		PM	D	16.7	D	16.7	0.00%
<b>Interstate 980</b>							
Junction I-880/6 <sup>th</sup> Street	N	AM	C	12.8	C	13.0	1.51%
		PM	C	15.1	C	15.5	2.46%
	S	AM	C	11.1	C	11.3	1.25%
		PM	B	9.8	B	10.0	1.44%
18th Street/W. Grand Avenue	N	AM	A	5.1	A	5.1	0.91%
		PM	C	11.5	C	11.6	0.55%
	S	AM	C	12.4	C	12.4	0.00%
		PM	A	6.4	A	6.4	0.00%
<b>State Route 24</b>							
Junction I-580 (42 <sup>nd</sup> /45 <sup>th</sup> Streets)	E	AM	B	7.7	B	7.7	0.75%
		PM	C	16.0	D	16.1	0.47%
	W	AM	D	18.9	D	18.9	0.21%
		PM	B	9.7	B	9.8	0.71%
<b>Interstate 580</b>							
Grand Avenue/Adams Street	E	AM	C	13.4	C	13.4	0.00%
		PM	F	-	F	-	0.12%
	W	AM	F	-	F	-	0.04%
		PM	C	14.9	C	15.0	0.17%
Harrison Street/Piedmont Avenue	E	AM	B	9.9	B	9.9	0.00%
		PM	D	20.0	D	20.1	0.09%
	W	AM	D	20.3	D	20.3	0.05%
		PM	C	11.2	C	11.2	0.18%

- Note: 1. Traffic volumes in the Year 2010 No Project scenario are based on the ACCMA's model.  
 2. Segments that currently or are projected to operate at a LOS E or F are shaded.  
 3. Caltrans requires the use of the "density" calculation while the City of Oakland requires the "volume-to-capacity ratio" methodology. Project impacts are assessed based on the "volume-to-capacity" ratio methodology.

Source: Korve Engineering, 2003.

**Table IV.D-24: Summary of Year 2010 Freeway Volume to Capacity LOS Analysis**

Freeway/Segment	Dir.	Peak Hour	No Project			With Project		
			LOS	V/C	Volume/ Lane/ Hour	LOS	V/C	Volume/ Lane/ Hour
<b>Interstate 880</b>								
Oak Street/Madison Street	N	AM	E	1.00	1,996	F	1.00	2,003
		PM	D	0.82	1,638	D	0.83	1,652
	S	AM	D	0.81	1,628	D	0.82	1,637
		PM	E	0.97	1,940	E	0.97	1,946
Broadway/Jackson Street	N	AM	F	1.09	2,181	F	1.09	2,189
		PM	E	0.93	1,865	E	0.94	1,881
	S	AM	D	0.75	1,499	D	0.75	1,508
		PM	D	0.86	1,724	D	0.87	1,730
Junction. I-980/Market Street	N	AM	F	1.09	2,188	F	1.09	2,188
		PM	D	0.78	1,553	D	0.78	1,553
	S	AM	C	0.61	1,219	C	0.61	1,219
		PM	D	0.85	1,705	D	0.85	1,705
<b>Interstate 980</b>								
Junction I-880/6 <sup>th</sup> Street	N	AM	C	0.68	1,356	C	0.69	1,377
		PM	D	0.80	1,596	D	0.82	1,635
	S	AM	C	0.59	1,180	C	0.60	1,195
		PM	C	0.52	1,045	C	0.53	1,061
18th Street/W. Grand Avenue	N	AM	A	0.27	538	A	0.27	543
		PM	C	0.61	1,223	C	0.61	1,230
	S	AM	C	0.66	1,315	C	0.66	1,315
		PM	B	0.34	677	B	0.34	677
<b>State Route 24</b>								
Junction I-580 (42 <sup>nd</sup> /45 <sup>th</sup> Streets)	E	AM	B	0.42	835	B	0.42	841
		PM	D	0.86	1,719	D	0.86	1,727
	W	AM	E	0.97	1,942	E	0.97	1,946
		PM	C	0.53	1,056	C	0.53	1,064
<b>Interstate 580</b>								
Grand Avenue/Adams Street	E	AM	C	0.73	1,466	C	0.73	1,466
		PM	F	1.30	2,601	F	1.30	2,604
	W	AM	F	1.31	2,617	F	1.31	2,618
		PM	D	0.81	1,628	D	0.82	1,631
Harrison Street/Piedmont Avenue	E	AM	C	0.54	1,086	C	0.54	1,086
		PM	F	1.01	2,023	F	1.01	2,024
	W	AM	F	1.02	2,038	F	1.02	2,039
		PM	C	0.61	1,226	C	0.61	1,228

- Note: 1. Roadway capacities assumed to be 2,000 vehicles per hour per lane for freeways.  
 2. Segments that currently or are projected to operate at a LOS E or F are shaded.  
 3. Caltrans requires the use of the “density” calculation while the City of Oakland requires the “volume-to-capacity ratio” methodology. Project impacts are assessed based on the “volume-to-capacity” ratio methodology.

Source: Korve Engineering, 2003.

**Table IV.D-25: 2010 Intersection LOS Summary With Mitigation**

Intersection		Peak Hour	Intersection LOS (Average Vehicle Delay in seconds)					
			Existing Timing		Optimized Timing		With Intersection Improvements	
			No Project	With Project	No Project	With Project	No Project	With Project
6	San Pablo Avenue/Thomas L. Berkley Way (20 <sup>th</sup> Street) *	AM	B (18.0)	C (21.9)	NR	NR	NR	NR
		PM	C (26.5)	F (85.4)	C (21.5)	D (42.8)	NR	NR
14	Telegraph Avenue/19 <sup>th</sup> Street *	AM	D (52.9)	F (114.9)	B (14.1)	C (22.3)	NR	NR
		PM	D (43.5)	F (81.5)	B (19.7)	C (36.2)	NR	NR
23	Frontage Road/West Grand Ave	AM	C (33.0)	C (33.9)	NR	NR	C (27.2)	C (27.5)
		PM	F (103.4)	F (106.4)	F (101.4)	F (104.0)	D (38.2)	D (38.4)

- Note:
1. NR = Not Required.
  2. Intersections that currently or are projected to operate at a LOS E or F are shaded.
  3. Study intersections that are located within the City of Oakland’s downtown area are noted with an asterisk (\*) after the intersection name.

Source: Korve Engineering, 2003.

the three impacted intersections based on existing traffic signal timing, optimized traffic signal timing, and intersection improvements, if required.

Each of the intersections impacted by the Project is described below, along with the recommend mitigation measures.

*San Pablo Avenue/Thomas L. Berkley Way (20<sup>th</sup> Street)*

**Impact TRANS-1: The addition of Project traffic to the Year 2010 Baseline condition would result in a significant adverse impact at the intersection of San Pablo Avenue/Thomas L. Berkley Way (20<sup>th</sup> Street). The intersection was identified as operating at LOS C in the Year 2010 No Project Condition in the PM peak hour. The addition of Project traffic would result in the intersection operating at LOS F in the PM peak hour. (S)**

Mitigation Measure TRANS-1: Optimization of the signal timing at the intersection of San Pablo and Thomas L. Berkley Way (20<sup>th</sup> Street) would improve function to a LOS D in the PM peak hour. This intersection functions as an integrated signal system with other intersections in the downtown area. To mitigate the Project’s impact at this location and others, the City shall prepare a signal optimization and coordination plan for the area bounded by San Pablo Avenue, Grand Avenue, Telegraph Avenue, and 17<sup>th</sup> Street prior to Project occupancy. The plan shall address the timing and equipment requirements, as necessary for all of the signalized intersections located within this area. The Project applicant shall fund its fair share cost of the preparation of this plan and the implementation of the signal timing program. Implementation of the signal optimization program may also involve the purchase and installation of interconnection hardware (i.e. modems, microwave antennas, etc).

Given that the Project sponsor is responsible for only a portion of this mitigation measure, implementation of this set of improvements will be funded fully by one or a combination of the following means:

1. The Project sponsor shall fully fund the costs of the signalization improvements and be reimbursed through other fair-share contributions as future projects occur that fall within the City's thresholds of significance.
2. The City, at their sole discretion, shall establish a Traffic Improvement Program and concurrent Traffic Impact Fee Ordinance to fund the mitigation measure.
3. The Redevelopment Agency, at their sole discretion, shall contribute funds to the costs of implementation. (LTS)

The implementation of Mitigation Measure TRANS-1 would not lead to any adverse impacts.

*Telegraph Avenue/19<sup>th</sup> Street*

**Impact TRANS-2: The addition of Project traffic to the Year 2010 Baseline condition would result in a significant adverse impact at the intersection of Telegraph Avenue/19<sup>th</sup> Street. The intersection was identified as operating at LOS D in the Year 2010 No Project Condition in the AM and PM peak hours. The addition of Project traffic would result in the intersection operating at LOS F in both the AM and PM peak hours. (S)**

Mitigation Measure TRANS-2: Optimization of the signal timing at the intersection of Telegraph and 19th Street would improve the function to LOS C in both the AM or PM peak hours. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level. (LTS)

The implementation of Mitigation Measure TRANS-2 would not lead to any adverse impacts.

*Frontage Road/West Grand Avenue*

**Impact TRANS-3: In the 2010 No Project and Plus Project scenarios, the Frontage Road/West Grand Avenue intersection would operate at LOS F in the PM peak hour. The Project would cause the total intersection delay for the critical movements to increase by two or more seconds and result in a significant impact. (S)**

Mitigation Measure TRANS-3: Widen the intersection to add a second exclusive left turn lane in the eastbound direction and an exclusive right turn lane in the westbound direction. The intersection would operate at LOS D in the PM peak hour with these improvements.

The intersection of Frontage Road and West Grand Avenue is located on an elevated structure which is within the jurisdiction of Caltrans. The proposed mitigation measures would require the widening of the existing elevated structure and modification of the traffic signal. The second exclusive left turn lane in the eastbound direction and the exclusive right turn lane in the westbound direction should each be 300 feet in length with a 90-foot taper. Widening of the

existing structure would require additional support columns and the acquisition of right of way underneath the structure. In addition, the connector from Interstate 880 to Interstate 80 structure exists above this intersection. Columns supporting this elevated connector may have to be relocated to widen the Frontage Road/West Grand Avenue intersection. At this time, the implementation of this mitigation measure would not be economically feasible. Because this intersection is located outside of the City of Oakland's jurisdiction and because it is not economically feasible, it is significant and unavoidable. (SU)

**(3) Year 2025 Traffic Operations.** Traffic increases for each study intersection were estimated based on the Alameda County Congestion Management Agency's (ACCMA) Countywide Transportation Demand Model. The "Year 2025 No Project" traffic volumes are shown in Figures 7a and 7b in Appendix E. The "Year 2025 With Project Traffic" volumes are illustrated in Figures 8a and 8b in Appendix E. This cumulative scenario includes all development contemplated in the study area.

**Intersection Level of Service Analysis.** Table IV.D-26 summarizes the intersection Level of Service analysis for the 2025 peak hour traffic conditions with and without the proposed Uptown Project. The existing traffic signal timing was used in this analysis. Level of Service calculation worksheets for each of the analysis scenarios are attached in Appendix E.

In the "Year 2025 No Project" scenario, eight of the study intersections are forecast to operate at LOS E and five additional intersections are expected to operate at LOS F during at least one of the peak periods based on existing traffic signal timing. Optimizing the traffic signal timing results in two intersections operating at LOS E and one intersection (Frontage Road/West Grand Avenue) operating at LOS F in 2025 without the proposed Project.

The addition of Uptown Project traffic to the 2025 background traffic volumes results in ten intersections operating at LOS E and six intersections operating at LOS F based on existing signal timing. Optimizing the traffic signal timing results in four intersections operating at LOS E and two intersections operating at LOS F. The other 34 study intersections are forecast to operate at LOS D or better in the area outside the downtown area or LOS E or better in the downtown area in 2025 with the completion of the Uptown Project and the optimization of traffic signal timing where required. With optimized traffic signal timing, the addition of Project-related traffic in the 2025 analysis year results in three study intersections (Telegraph Avenue/West Grand Avenue and Broadway/West Grand Avenue) deteriorating from LOS D to LOS E and one study intersection (Telegraph Avenue/Thomas L. Berkley Way (20<sup>th</sup> Street)) deteriorating from LOS E to LOS F.

**Freeway Level of Service Analysis.** Table IV.D-27 summarizes the peak hour freeway level of service analysis in 2025 with and without the proposed Project based on the density methodology. Table IV.D-27 also presents the percentage of Project traffic on each freeway segment that was evaluated. The percentage of Project traffic on the studied freeway segments in 2025 ranges from 0.00 to 2.17 percent. The few segments on I-880 and I-980 where the Project will add more than 1 percent to the background 2025 volume all operate at an acceptable level of service (LOS D or better) based on the anticipated density of traffic on the highway. Therefore, the proposed Project does not significantly impact the freeway system. Table IV.D-28 presents the 2025 freeway analysis based on the volume-to-capacity analysis methodology.

**Table IV.D-26: 2025 Intersection Level of Service Summary**

	Intersection	Peak Hour	Intersection LOS (Average Vehicle Delay in Seconds)			Location (In or Outside of Downtown Area)
			Existing	Year 2025 No Project	Year 2025 With Project	
1	San Pablo Ave/31 <sup>st</sup> Street	AM	A (9.1)	A (10.4)	A (10.4)	Out
		PM	A (9.5)	B (11.8)	B (11.9)	
2	San Pablo Ave/Market / 25 <sup>th</sup> Street	AM	A (9.2)	B (10.3)	B (10.2)	Out
		PM	A (9.9)	B (12.0)	B (12.1)	
3	San Pablo Ave/27 <sup>th</sup> Street	AM	A (9.6)	B (11.0)	B (11.2)	Out
		PM	B (12.3)	E (69.2)	E (74.0)	
4	San Pablo Ave/West/25 <sup>th</sup> Street	AM	B (18.3)	C (21.2)	C (21.4)	Out
		PM	B (14.5)	B (17.1)	B (17.6)	
5	San Pablo Ave/West Grand Ave	AM	B (15.2)	B (19.4)	C (20.4)	In
		PM	B (16.9)	F (85.7)	F (111.1)	
6	San Pablo Ave/Thomas L. Berkley Way (20 <sup>th</sup> Street)	AM	B (16.5)	B (18.0)	C (22.0)	In
		PM	B (13.1)	C (27.0)	F (87.9)	
7	San Pablo Ave/William Street	AM	A (0.1)	A (0.1)	A (1.0)	In
		PM	A (1.4)	A (1.4)	A (1.5)	
8	San Pablo Ave/19 <sup>th</sup> Street	AM	B (19.6)	C (20.0)	C (20.5)	In
		PM	C (24.7)	C (26.5)	C (28.7)	
9	San Pablo Ave/18 <sup>th</sup> Street	AM	A (2.8)	A (2.9)	A (3.0)	In
		PM	A (2.9)	A (2.1)	A (2.3)	
10	San Pablo Ave/17 <sup>th</sup> Street	AM	B (19.3)	C (20.2)	C (20.7)	In
		PM	B (19.7)	D (38.0)	D (43.1)	
11	Telegraph Ave/West Grand Ave	AM	C (25.2)	E (57.3)	E (66.3)	In
		PM	C (20.0)	D (51.1)	E (78.6)	
12	Telegraph Ave/Thomas L. Berkley Way (20 <sup>th</sup> Street)	AM	B (11.7)	E (76.1)	F (86.7)	In
		PM	B (10.4)	F (272.6)	F (260.6)	
13	Telegraph Ave/William Street	AM	A (2.7)	D (44.0)	E (63.0)	In
		PM	A (2.6)	F (90.3)	F (98.7)	
14	Telegraph Ave/19 <sup>th</sup> Street	AM	B (10.6)	E (65.2)	F (126.3)	In
		PM	B (10.9)	F (95.1)	F (134.9)	
15	Telegraph Ave/18 <sup>th</sup> Street	AM	A (5.0)	B (13.1)	C (21.5)	In
		PM	A (5.6)	A (7.9)	A (9.9)	
16	Telegraph Ave/17 <sup>th</sup> Street	AM	B (11.0)	B (11.2)	B (11.8)	In
		PM	B (9.6)	B (12.5)	B (13.0)	
17	Broadway/West Grand Ave	AM	C (25.0)	C (33.5)	D (41.8)	In
		PM	D (38.4)	D (50.7)	E (67.9)	
18	Broadway/Thomas L. Berkley Way (20 <sup>th</sup> Street)	AM	B (11.8)	B (13.8)	B (13.8)	In
		PM	B (12.4)	B (12.6)	B (13.1)	
19	Broadway/19 <sup>th</sup> Street	AM	B (13.0)	B (13.4)	B (13.4)	In
		PM	B (13.6)	C (24.9)	C (30.4)	
20	Broadway/17 <sup>th</sup> Street	AM	B (13.9)	B (18.7)	C (22.3)	In
		PM	B (12.9)	B (15.7)	B (16.2)	
21	Broadway/15 <sup>th</sup> Street	AM	A (7.2)	A (8.1)	A (7.8)	In
		PM	A (8.5)	B (10.1)	B (10.0)	
22	Broadway/14 <sup>th</sup> Street	AM	B (12.6)	B (13.1)	B (13.2)	In
		PM	B (13.5)	B (14.1)	B (14.4)	
23	Frontage Road/West Grand Ave	AM	C (30.5)	F (166.5)	F (179.4)	Out
		PM	E (57.7)	F (223.7)	F (225.7)	

Table IV.D-26 continued

	Intersection	Peak Hour	Intersection LOS (Average Vehicle Delay in Seconds)			Location (In or Outside of Downtown Area)
			Existing	Year 2025 No Project	Year 2025 With Project	
24	Mandela Pkwy/West Grand Ave	AM	B (17.2)	C (20.7)	C (20.8)	Out
		PM	B (19.9)	D (54.8)	E (63.1)	
25	Northgate Ave/West Grand Ave	AM	C (26.2)	D (44.7)	E (55.7)	In
		PM	C (26.5)	E (77.0)	E (84.8)	
26	Webster Street/Grand Avenue	AM	B (17.0)	C (24.8)	D (37.5)	In
		PM	C (22.2)	C (25.3)	C (26.2)	
27	Harrison Street/Grand Avenue	AM	C (22.6)	C (32.2)	D (36.7)	In
		PM	C (27.9)	E (55.8)	E (60.5)	
28	El Embarcadero/Grand Avenue	AM	B (19.0)	B (19.9)	C (20.3)	Out
		PM	C (25.2)	C (31.7)	C (33.8)	
29	MacArthur Blvd/Grand Avenue	AM	C (21.7)	C (23.0)	C (23.2)	Out
		PM	C (27.9)	C (31.7)	D (36.2)	
30	MacArthur Blvd/Lakeshore Ave	AM	B (16.5)	B (16.7)	B (17.2)	Out
		PM	C (23.7)	C (27.1)	C (30.0)	
31	Lake Park Ave/Lakeshore Ave	AM	D (49.3)	E (76.0)	E (79.0)	Out
		PM	C (34.9)	D (41.4)	D (46.3)	
32	Brush Street/18 <sup>th</sup> Street	AM	A (5.7)	A (8.4)	B (11.6)	In
		PM	A (9.4)	A (9.6)	B (10.6)	
33	Castro Street/18 <sup>th</sup> Street	AM	A (7.3)	A (8.3)	A (9.0)	In
		PM	B (14.0)	D (51.7)	E (61.1)	
34	Martin Luther King Jr. Way/18 <sup>th</sup> St.	AM	B (10.6)	B (12.1)	B (11.9)	In
		PM	B (11.9)	B (13.8)	B (14.2)	
35	Brush Street/17 <sup>th</sup> Street	AM	A (7.4)	A (8.7)	A (8.9)	In
		PM	B (10.0)	B (11.6)	B (11.8)	
36	Castro Street/17 <sup>th</sup> Street	AM	C (24.7)	C (30.2)	C (32.8)	In
		PM	C (28.1)	E (60.0)	E (71.7)	
37	Martin Luther King Jr. Way/17 <sup>th</sup> St.	AM	B (11.7)	B (12.2)	B (12.2)	In
		PM	B (10.6)	B (11.2)	B (11.3)	
38	Jefferson Street/17 <sup>th</sup> Street	AM	B (11.3)	B (11.5)	B (11.6)	In
		PM	B (10.3)	B (10.8)	B (11.0)	
39	Franklin Street/17 <sup>th</sup> Street	AM	B (15.4)	D (36.2)	D (52.2)	In
		PM	B (12.5)	D (44.1)	D (52.9)	
40	Webster Street/17 <sup>th</sup> Street	AM	B (10.0)	B (11.8)	B (12.7)	In
		PM	B (10.6)	B (12.5)	B (13.1)	

- Note: 1. Intersections 7 and 9 (San Pablo Avenue/William Street and San Pablo Avenue/18<sup>th</sup> Street) are stop controlled and traffic signals exist at the remaining 38 study intersections.  
 2. Intersections that currently or are projected to operate at a LOS E or F are shaded.  
 3. Intersections located inside the City’s downtown planning area are noted as “In” in the location column, and intersections located outside the downtown area are noted as “Out”.

Source: Korve Engineering, 2003.



**Table IV.D-27: Summary of Year 2025 Freeway Density LOS Analysis**

Freeway/Segment	Dir.	Peak Hour	No Project		With Project		Percent Project Volume
			LOS	Density (pc/km/ln)	LOS	Density (pc/km/ln)	
<b>Interstate 880</b>							
Oak Street/Madison Street	N	AM	E	23.6	E	23.8	0.35%
		PM	D	16.4	D	16.6	0.83%
	S	AM	C	15.1	C	15.2	0.57%
		PM	E	24.2	E	24.4	0.28%
Broadway/Jackson Street	N	AM	F	-	F	-	0.34%
		PM	D	21.9	E	22.4	0.78%
	S	AM	C	13.8	C	13.9	0.61%
		PM	D	19.2	D	19.3	0.32%
Junction. I-980/Market Street	N	AM	F	-	F	-	0.00%
		PM	C	15.6	C	15.6	0.00%
	S	AM	B	9.0	B	9.0	0.00%
		PM	D	19.3	D	19.3	0.00%
<b>Interstate 980</b>							
Junction I-880/6 <sup>th</sup> Street	N	AM	C	13.7	C	13.9	1.41%
		PM	D	17.6	D	18.2	2.17%
	S	AM	C	12.5	C	12.7	1.11%
		PM	B	10.8	B	11	1.31%
18th Street/W. Grand Avenue	N	AM	A	5.6	A	5.7	0.82%
		PM	C	12.4	C	12.4	0.51%
	S	AM	C	13.4	C	13.4	0.00%
		PM	A	6.9	A	6.9	0.00%
<b>State Route 24</b>							
Junction I-580 (42 <sup>nd</sup> /45 <sup>th</sup> Streets)	E	AM	B	7.3	B	7.4	0.79%
		PM	D	17.1	D	17.2	0.44%
	W	AM	D	19.9	D	20.0	0.21%
		PM	B	10.3	B	10.4	0.67%
<b>Interstate 580</b>							
Grand Avenue/Adams Street	E	AM	C	12.8	C	12.8	0.00%
		PM	F	-	F	-	0.13%
	W	AM	F	-	F	-	0.04%
		PM	D	16.2	C	16.2	0.15%
Harrison Street/Piedmont Avenue	E	AM	B	9.0	B	9.0	0.00%
		PM	D	19.5	D	19.5	0.09%
	W	AM	E	22.5	E	22.6	0.04%
		PM	C	11.9	C	11.9	0.16%

Note: 1. Traffic volumes in the Year 2010 No Project scenario are based on the ACCMA’s model.  
2. Segments that currently or are projected to operate at a LOS E or F are shaded.  
3. Caltrans requires the use of the “density” calculation while the City of Oakland requires the “volume-to-capacity ratio” methodology. Project impacts are assessed based on the “volume-to-capacity” ratio methodology.  
Source: Korve Engineering, 2003.

**Table IV.D-28: Summary of Year 2025 Freeway Volume to Capacity LOS Analysis**

Freeway/Segment	Dir.	Peak Hour	No Project			With Project		
			LOS	V/C	Volume/ Lane/ Hour	LOS	V/C	Volume/ Lane/ Hour
<b>Interstate 880</b>								
Oak Street/Madison Street	N	AM	F	1.05	2,090	F	1.05	2,098
		PM	D	0.84	1,678	D	0.85	1,692
	S	AM	D	0.78	1,566	D	0.79	1,574
		PM	F	1.06	2,114	F	1.06	2,120
Broadway/Jackson Street	N	AM	F	1.22	2,437	F	1.22	2,445
		PM	F	1.01	2,022	F	1.02	2,038
	S	AM	C	0.72	1,442	C	0.73	1,451
		PM	E	0.94	1,879	E	0.94	1,885
Junction. I-980/Market Street	N	AM	F	1.25	2,509	F	1.25	2,509
		PM	D	0.81	1,616	D	0.81	1,616
	S	AM	B	0.47	943	B	0.47	943
		PM	E	0.94	1,888	E	0.94	1,888
<b>Interstate 980</b>								
Junction I-880/6 <sup>th</sup> Street	N	AM	C	0.73	1,453	C	0.74	1,474
		PM	D	0.90	1,809	E	0.92	1,848
	S	AM	C	0.66	1,328	C	0.67	1,343
		PM	C	0.57	1,146	C	0.58	1,161
18th Street/W. Grand Avenue	N	AM	A	0.30	600	A	0.30	604
		PM	C	0.66	1,315	C	0.66	1,322
	S	AM	C	0.71	1,423	C	0.71	1,423
		PM	B	0.37	735	B	0.37	735
<b>State Route 24</b>								
Junction I-580 (42 <sup>nd</sup> /45 <sup>th</sup> Streets)	E	AM	B	0.40	794	B	0.40	801
		PM	D	0.91	1,817	E	0.91	1,825
	W	AM	F	1.00	2,005	F	1.00	2,010
		PM	C	0.56	1,127	C	0.57	1,135
<b>Interstate 580</b>								
Grand Avenue/Adams Street	E	AM	C	0.70	1,401	C	0.70	1,401
		PM	F	1.28	2,565	F	1.28	2,569
	W	AM	F	1.37	2,739	F	1.37	2,740
		PM	D	0.87	1,745	D	0.87	1,748
Harrison Street/Piedmont Avenue	E	AM	B	0.49	980	B	0.49	980
		PM	E	0.99	1,990	E	1.00	1,992
	W	AM	F	1.07	2,150	F	1.08	2,151
		PM	C	0.65	1,305	C	0.65	1,307

- Note: 1. Roadway capacities assumed to be 2,000 vehicles per hour per lane for freeways.  
 2. Segments that currently or are projected to operate at a LOS E or F are shaded.  
 3. Caltrans requires the use of the “density” calculation while the City of Oakland requires the “volume-to-capacity ratio” methodology. Project impacts are assessed based on the “volume-to-capacity” ratio methodology.

Source: Korve Engineering, 2003.

**Table IV.D-29: 2025 Intersection LOS Summary With Mitigation**

Intersection		Peak Hour	Intersection LOS (Average Vehicle Delay in seconds)					
			Existing Timing		Optimized Timing		With Intersection Improvements	
			No Project	With Project	No Project	With Project	No Project	With Project
3	San Pablo Ave/27 <sup>th</sup> St	AM	B (11.0)	B (11.2)	NR	NR	NR	NR
		PM	E (69.2)	E (74.0)	D (40.3)	D (43.4)	NR	NR
5	San Pablo Ave/West Grand Ave *	AM	B (19.4)	C (20.4)	NR	NR	NR	NR
		PM	F (85.7)	F (111.1)	D (39.0)	E (78.5)	NR	NR
6	San Pablo Ave/Thomas L. Berkley Way (20 <sup>th</sup> Street) *	AM	B (18.0)	C (22.0)	NR	NR	NR	NR
		PM	C (27.0)	F (87.9)	C (27.0)	D (44.9)	NR	NR
11	Telegraph Ave/West Grand Ave *	AM	E (57.3)	E (66.3)	D (41.1)	E (55.1)	NR	NR
		PM	D (51.1)	E (78.6)	D (46.8)	E (62.8)	NR	NR
12	Telegraph Ave/Thomas L. Berkley Way (20 <sup>th</sup> Street) *	AM	E (76.1)	F (86.7)	A (9.7)	B (12.5)	NR	NR
		PM	F (272.6)	F (260.6)	E (71.2)	E (78.1)	NR	NR
13	Telegraph Ave/William St *	AM	D (44.0)	E (63.0)	NR	NR	NR	NR
		PM	F (90.3)	F (98.7)	A (3.9)	B (13.7)	NR	NR
14	Telegraph Ave/19 <sup>th</sup> St *	AM	E (65.2)	F (126.3)	C (21.2)	D (44.6)	B (19.2)	C (27.0)
		PM	F (95.1)	F (134.9)	E (65.5)	F (107.5)	D (43.5)	E (66.5)
23	Frontage Rd/West Grand Ave	AM	F (166.5)	F (179.4)	F (128.3)	F (140.1)	D (37.5)	D (41.2)
		PM	F (223.7)	F (225.7)	F (215.7)	F (217.5)	E (56.5)	E (58.4)
24	Mandela Pkwy/West Grand Ave	AM	C (20.7)	C (20.8)	NR	NR	NR	NR
		PM	D (54.8)	E (63.1)	D (45.8)	D (47.8)	NR	NR
27	Harrison Street/Grand St *	AM	C (32.2)	D (36.7)	NR	NR	NR	NR
		PM	E (55.8)	E (60.5)	D (52.1)	E (56.1)	NR	NR
36	Castro St/17 <sup>th</sup> St *	AM	C (30.2)	C (32.8)	NR	NR	NR	NR
		PM	E (60.0)	E (71.7)	D (40.2)	D (45.9)	NR	NR

- Note: 1. NR = Not Required.  
 2. Intersections that currently or are projected to operate at a LOS E or F are shaded.  
 3. Study intersections that are located within the City of Oakland's downtown area are noted with an asterisk (\*) after the intersection name.

Source: Korve Engineering, 2003.

**2025 Traffic Impacts and Mitigations.** The additional trips generated by the Uptown Project will not significantly impact the freeway system. However based on the City of Oakland's traffic impact criteria, the Project will result in a significant traffic impact at 11 of the 40 study intersections based on the 2025 intersection level of service analysis. Table IV.D-29 presents the LOS and average vehicle delay for the impacted study intersections.

The impacted intersections and the recommended mitigation measures are presented below.

*San Pablo Avenue/27<sup>th</sup> Street*

**Impact TRANS-4: In the PM peak hour, the San Pablo/27<sup>th</sup> Street intersection would operate at LOS E in the Year 2025 No Project and Year 2025 Plus Project scenarios. The Project would cause the total intersection average vehicle delay to increase by six or more seconds. (S)**

Mitigation Measure TRANS-4: Optimization of the signal timing at the intersection of San Pablo and 27th Street would improve function to a LOS D in the PM peak hour. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level. (LTS)

The implementation of Mitigation Measure TRANS-2 would not lead to any adverse impacts.

*San Pablo Avenue/West Grand Avenue*

**Impact TRANS-5: The addition of Project traffic to the Year 2025 Baseline condition would result in a significant adverse impact at the intersection of San Pablo Avenue/West Grand Avenue. The intersection was identified as operating at LOS F in the Year 2025 No Project Condition in the PM peak hour. The addition of Project traffic would cause the total intersection average vehicle delay to increase by two or more seconds. (S)**

Mitigation Measure TRANS-5: Optimization of the signal timing at the intersection of San Pablo and West Grand Avenue would improve the function to a LOS E in the PM peak hour. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level. (LTS)

The implementation of Mitigation Measure TRANS-5 would not lead to any adverse impacts

*San Pablo Avenue/Thomas L. Berkley Way (20<sup>th</sup> Street)*

**Impact TRANS-6: The addition of Project traffic to the Year 2025 Baseline condition would result in a significant adverse impact at the intersection of San Pablo Avenue/Thomas L. Berkley Way (20<sup>th</sup> Street). The intersection was identified as operating at LOS C in the Year 2025 No Project Condition in the PM peak hour. The addition of Project traffic would result in the intersection operating at LOS F. (S)**

Mitigation Measure TRANS-6: Optimization the signal timing at the intersection of San Pablo and Thomas L. Berkley Way (20<sup>th</sup> Street). By optimizing the signal timing splits, the

intersection would improve the function to a LOS D in the PM peak hour. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level. (LTS)

The implementation of Mitigation Measure TRANS-6 would not lead to any adverse impacts.

*Telegraph Avenue/West Grand Avenue*

**Impact TRANS-7: The addition of Project traffic to the Year 2025 Baseline condition would result in a significant adverse impact at the intersection of Telegraph Avenue/West Grand Avenue. The intersection was identified as operating at LOS E in the Year 2025 No Project Condition in the AM peak hour. The addition of Project traffic would cause an increase in the average delay for critical movements to increase by more than six seconds in the AM peak hour. (S)**

Mitigation Measure TRANS-7: Optimization of the signal timing and changing the cycle length to 65 seconds at this intersection would mitigate the delay that would result from the proposed Project. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level. (LTS)

The implementation of Mitigation Measure TRANS-7 would not lead to any adverse impacts.

*Telegraph Avenue/Thomas L. Berkley Way (20<sup>th</sup> Street)*

**Impact TRANS-8: With the Project, the Telegraph Avenue/Thomas L. Berkley Way (20<sup>th</sup> Street) intersection LOS would degrade from LOS E to LOS F in the AM peak hour. In the PM peak hour, the Telegraph Avenue/Thomas L. Berkley Way (20<sup>th</sup> Street) intersection would operate at LOS F in the Year 2025 No Project and Year 2025 Plus Project scenarios. (S)**

Mitigation Measure TRANS-8: Optimization of the signal timing in the AM peak hour and changing the cycle length to 70 seconds at this intersection would mitigate the Projects increase in delay. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level. (LTS)

The implementation of Mitigation Measure TRANS-8 would not lead to any adverse impacts.

*Telegraph Avenue/William Street*

**Impact TRANS-9: The Telegraph Avenue/William Street intersection would operate at LOS F in the PM peak hour in the Year 2025 No Project and Year 2025 Plus Project scenarios. The Project would cause the total intersection average delay to increase by two or more seconds. In addition, the Project would increase average delay for the critical movements by four or more seconds. (S)**

Mitigation Measure TRANS-9: Changing the cycle length to 80 seconds and optimizing signal timing would improve the function of this intersection to LOS C in the PM peak hour. By optimizing the signal timing splits and changing the signal cycle, the Projects increase in delay would be mitigated. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level. (LTS)

The implementation of Mitigation Measure TRANS-9 would not lead to any adverse impacts.

*Telegraph Avenue/19<sup>th</sup> Street*

**Impact TRANS-10** The addition of Project traffic to the Year 2025 Baseline condition would result in a significant adverse impact at the Telegraph Avenue/19<sup>th</sup> Street intersection. With the Project, the intersection LOS would degrade from LOS E to LOS F in the AM peak hour. In the PM peak hour, the Telegraph Avenue/19<sup>th</sup> Street intersection would operate at LOS F in the Year 2025 No Project and Year 2025 Plus Project scenarios. In addition, the Project would increase average delay for the critical movements by four or more seconds in the PM peak hour. Both of these changes are considered to be significant adverse impacts based on City standards. (S)

Mitigation Measure TRANS-10: The Project shall provide for the following two improvements.

- Optimize the signal timing at the intersection of Telegraph and 19th Street. Since this intersection also functions as part of an integrated signal system in downtown Oakland, Mitigation Measure TRANS-1B shall also be implemented.
- Restripe the westbound 19th Street approach to provide two exclusive through lanes and an exclusive right turn lane.

With these improvements, the intersection would operate at LOS C in the AM peak hour and LOS E in the PM peak hour.

The restriping of the westbound 19th Street approach to the intersection to provide two exclusive through lanes and an exclusive right turn lane would require the elimination of six metered parking spaces on the northern side of 19th Street between Telegraph and Broadway. With the existing roadway width available the two through lanes would each be 11 feet wide and the right turn lane would be 10 feet wide, which would satisfy City standards of 10-foot lanes. Metered parking would remain on the southern side of 19th Street. (LTS)

*Frontage Road/West Grand Avenue*

**Impact TRANS-11** The Frontage Road/West Grand Avenue intersection would operate at LOS F in the AM and PM peak hours in Year 2025 No Project and Year 2025 plus Project conditions. The Project would cause the total intersection average vehicle delay to increase by two or more seconds in the AM and PM peak hours. In addition, the Project would increase in average delay for critical movements by four or more seconds. (S)

**Mitigation Measure TRANS-11:** Widen the eastbound approach to accommodate two left turn lanes, two through lanes, and a right turn lane. Widen the southbound approach would need to accommodate a right turn lane, a left turn lane, and a shared through/right turn lane. In addition, the northbound approach should be converted from a left turn lane, a through lane, and a shared through/right turn lane to a left turn lane, a shared through/right turn lane, and a right turn lane. With the proposed improvements, the intersection would operate at LOS C in the AM peak hour and LOS D in the PM peak hour.

The intersection of Frontage Road and West Grand Avenue is located on an elevated structure which is within the jurisdiction of Caltrans. The proposed mitigation measures would require the expansion of the existing elevated structure and modification of the traffic signal. Widening of the existing structure would require additional support columns and the acquisition of right of way underneath the structure. In addition, the connector from Interstate 880 to Interstate 80 structure exists above this intersection. Columns supporting this elevated connector may have to be relocated to pursue the widening of the Frontage Road/West Grand Avenue intersection. The implementation of this mitigation measure would not be economically feasible. Because this intersection is located outside of the City of Oakland's jurisdiction and because it is not economically feasible, it is significant and unavoidable. (SU)

*Mandela Parkway/West Grand Avenue*

**Impact TRANS-12:** The addition of Project traffic at the Mandela Parkway/West Grand Avenue intersection would cause the service level to degrade from LOS D in the Year 2025 No Project Condition to LOS E in the Year 2025 with Project Condition during the PM peak hour. (S)

**Mitigation Measure TRANS-12:** Changing the cycle length to 110 seconds, providing protected left turn phases on the eastbound and westbound approaches, and optimizing the signal timing would improve the function of this intersection to a LOS D in the PM peak hour. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level. (LTS)

The implementation of Mitigation Measure TRANS-12 would not lead to any adverse impacts.

*Harrison Street/Grand Avenue*

**Impact TRANS-13:** The Harrison/Grand Avenue intersection was found to operate at LOS E in the Year 2025 No Project and Year 2025 with Project Conditions during the PM peak hour. The Project would cause an increase in the average delay for critical movements by more than six seconds in the PM peak hour. (S)

**Mitigation Measure TRANS-13:** Changing the cycle length to 110 seconds and optimizing the signal timing splits would mitigate the Project's impact. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level. (LTS)

The implementation of Mitigation Measure TRANS-13 would not lead to any adverse impacts.

*Castro Street/17th Street/I-980 Off Ramp*

**Impact TRANS-14:** In the PM peak hour, the Castro Street/17th Street /I-980 Off-Ramp intersection would operate at LOS E in the Year 2025 No Project and Year 2025 Plus Project scenarios. The Project would cause an increase in the average delay for the critical movements of six or more seconds. (S)

Mitigation Measure TRANS-14: Optimization of the intersection’s signal timing at this intersection would improve the function of this intersection to operate at LOS D in the PM peak hour. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level. (LTS)

The implementation of Mitigation Measure TRANS-14 would not lead to any adverse impacts

**(4) Parking Impacts and Mitigations.** Table IV.D-30 summarizes the vehicle parking requirements for the proposed Project. The adequacy of on-site parking is evaluated by comparing the City of Oakland’s Planning Code requirements with the planned on-site parking that will be provided by the Project. The City’s parking requirements are based on the zoning designation for the property. The proposed Project is located in two zoning areas. The portion of the Project along Telegraph Avenue and 18<sup>th</sup> Street is in zone “C-55/S-17” and the rest of the Project is in zone “C-51/S-17.” All of the planned retail uses will be located in the C-55 zone, which is in the CBD area and does not require any parking.

**Table IV.D-30: Summary of Project Parking Requirements – City of Oakland Code**

Land Use	Size	Parking Requirement	Parking Spaces Required
Apartments	1,000 units	1 stall per DU	1,000
Condominiums	270 units	1 stall per DU	270
Student Housing	600 units	1 stall per 2 units	300
Faculty Housing	50 units	1 stall per DU	50
Retail	33,000 sf	Not Required	0
<b>Total</b>			<b>1,620</b>

Source: City of Oakland Municipal Code Title 17 Chapter 116.060; Korve Engineering, 2003.

According to City code the Uptown Project will require a total of 1,620 vehicle parking spaces. The proposed Project will provide adequate parking to comply with the City of Oakland’s zoning requirements. In addition to the on-site parking provided for the Project there would be 176 on-street parking spaces (including service area) provided within the right-of-way of the proposed streets within the Project and along the Project frontage on San Pablo Avenue. The on-street parking spaces will primarily be used by visitors.

Currently there are 1,242 parking spaces on the Uptown Project site that will be removed when the Project is constructed. The majority of the people that currently use this parking are expected to use transit in the future, or utilize other parking facilities in the area.

The proposed Project will meet the City’s planning code requirements for on-site parking and will provide sufficient parking for the proposed Project’s residents and tenants. As a result, no significant impacts related to parking will occur.



**(5) Pedestrian/Bicycle Facility Impacts and Mitigations.** Pedestrian access within the Project site will be provided by interconnected sidewalks and pedestrian courts.

Table IV.D-31 summarizes the City of Oakland recommended provisions for bicycle parking for projects in the downtown area. Class I bicycle parking spaces are located in a secured area (e.g. lockers). Class II bicycle parking spaces are located on-street (e.g. racks).

**Table IV.D-31: Summary of Project Bicycle Parking – Recommended by the City of Oakland**

Land Use	Size	Class I Parking Requirement	Class II Parking Spaces Required
Apartments	1,000 units	1 stall per 3 DU	1 stall per DU
Condominiums	270 units	1 stall per 3 DU	1 stall per DU
Student Housing	1000 beds	1 stall per 2 beds	1 stall per 2 units
Faculty Housing	50 units	1 stall per 2 DU	1 stall per DU
Retail	33,000 sf	1 space per 30 employees	1 space per 3000 sf of restaurant space or minimum of 4

Source: Public Works Agency, City of Oakland

Table IV.D-32 summarizes the total number of bicycle parking facilities recommended by the City of Oakland for each Project block. The residential portion of the Uptown Project would need to provide a total of 947 Class I bicycle parking spaces and 156 Class II bicycle parking spaces to satisfy the City’s recommendation. The commercial portion of the Uptown Project would need to provide a total of four Class I bicycle parking spaces and 16 Class II bicycle parking spaces to satisfy the City’s recommendation.

**(6) Site Access and Internal Circulation Impacts and Mitigations.** Several new north/south roadways will be constructed on-site in order to provide internal circulation and access to the planned parking garages. The Project driveway on 21<sup>st</sup> Street serving Parcel 7 will have the largest number of Project trips. This access is expected to operate at an acceptable level of service because 21<sup>st</sup> Street is a one-way street so access to and from the Project will be restricted to right-turn-only movements. The Project access serving Parcels 5 and 6 just west of the Fox Theatre would serve the second largest number of vehicles. Full movements in and out of the driveway will be permitted on to the new “Lane C.” This driveway and the remaining Project driveways were found to function at LOS B or better with full build out of Project traffic. No additional site access or internal circulation improvements were found to be necessary.

**c. Transit.** The City of Oakland considers the potential impacts related to transit to be significant where a Project:

- Increases the peak hour average ridership on BART by 3 percent where the passenger volume would exceed the standing capacity of BART trains; or
- Increases the peak hour average ridership at a BART station by 3 percent where average waiting time at fare gates would exceed 1 minute; and
- Increases the average ridership on AC Transit lines by 3 percent at bus stops where the average load factor with the Project in place would exceed 125 percent over a peak 30-minute period.

The proposed Project is forecast to result in 1,464 BART trips and 897 AC Transit bus trips to and from the proposed Project site on an average weekday. In the morning peak hour, the proposed Project is forecast to generate approximately 112 BART trips (18 inbound, 94 outbound) and 69 AC Transit bus trips (11 inbound, 58 outbound). In the evening peak commute hour, the Project would generate roughly 137 BART trips (92 inbound, 45 outbound) and 84 AC Transit bus trips (56

**Table IV.D-32: Summary of Project Bicycle Parking – Recommended by the City of Oakland**

Block	Residential Parking – Class I	Residential Parking – Class II	Commercial Parking – Class I	Commercial Parking – Class II	Total – Class I	Total – Class II
1	63	13	0	0	63	13
2	63	13	0	0	63	13
3	83	17	1	3	84	19
4	75	15	2	5	77	20
5	90	18	0	0	90	18
6	48	10	0	0	46	10
7	525	70	1	4	526	74
8 and 9	0	0	0	4	0	4
<b>Total</b>	<b>947</b>	<b>156</b>	<b>4</b>	<b>16</b>	<b>949</b>	<b>171</b>

Source: Public Works Agency, the City of Oakland.

inbound, 28 outbound). It is important to note that the majority of both the vehicle and transit trips generated by the Project are in the off-peak direction, which will result in better utilization of the existing transportation system in downtown Oakland.

**(1) Project BART Ridership.** The potential Project-related impacts on both BART lines and the BART station were investigated. The anticipated BART trips were assigned to each of the BART lines at the 19<sup>th</sup> Street Station based on the existing ridership share of each line. Table IV.D-33 presents the number of passengers from the Uptown Project that are expected to use each BART line, along with the Project-related percentage increase in passengers and the load factor with the Project. The number of new Project-related trips assigned to a BART line ranges from 1 to 48, which will result in less than a 1 percent increase in ridership. The increases are all less than the 3 percent that the City of Oakland has identified as the threshold of significant impact on BART service. In addition, load factors on all lines are below 115 percent for lines in the East bay and 135 percent for transbay lines with the completion of the proposed Uptown Project. It is therefore in compliance with the performance measures of BART described in the 2001 Congestion Management Program (CMP 2001) of the Alameda County Congestion Management Agency (ACCMA).<sup>9</sup>

During the morning peak hour (8:00 a.m. to 9:00 a.m.), passengers entering the 19<sup>th</sup> Street BART station will increase by approximately 17 percent due to the Project. Currently, most riders exit the 19<sup>th</sup> Street BART station during morning peak hour. Therefore, the increase in passengers entering the station during the morning peak hour will help balance the inflow and outflow of passengers. The Project is expected to add on average less than one person per gate per minute. Since the current waiting time at fare gates is less than 15 seconds during the morning peak,<sup>10</sup> the waiting time is

<sup>9</sup> Chapter 4. Congestion Management Program, 2001. Alameda County Congestion Management Agency

<sup>10</sup> A maximum of eight people were observed waiting at the BART ticket gates during the morning peak hour, based on a site observation conducted on Tuesday, August 12, 2003. The last person in the queue took 15 seconds to pass through the gate. During the evening peak hour, the largest observed queue was four people. The last person in the longest line took 9 seconds to pass through the gate during the evening peak. An average of approximately 3 to 4 people waiting at the exit gates was observed during the morning peak hour, with an average queue of two people during the evening peak hour.

**Table IV.D-33: Project BART Ridership**

BART Lines	Time	Passengers From Project		Project Related Percentage Increase in Passengers		Load Factor With Project	
		Alighting	Boarding	Before Alighting	After Alighting	Before Alighting	After Alighting
Richmond – Daly City	8-9 a.m.	4	25	0.15%	0.90%	102%	103%
	5-6 p.m.	7	4	0.70%	0.32%	35%	43%
Daly City –Richmond	8-9 a.m.	1	6	0.15%	0.90%	35%	26%
	5-6 p.m.	18	8	0.70%	0.32%	92%	93%
Richmond–Fremont	8-9 a.m.	1	6	0.15%	0.90%	31%	24%
	5-6 p.m.	6	4	0.75%	0.32%	49%	70%
Fremont–Richmond	8-9 a.m.	2	6	0.15%	0.90%	57%	37%
	5-6 p.m.	6	3	0.75%	0.32%	52%	59%
Pittsburg/Bay Point – Millbrae	8-9 a.m.	8	46	0.15%	0.90%	104%	101%
	5-6 p.m.	8	4	0.75%	0.32%	28%	33%
Millbrae–Pittsburg / Bay Point	8-9 a.m.	1	5	0.15%	0.90%	29%	21%
	5-6 p.m.	48	23	0.70%	0.32%	112%	114%

Source: Korve Engineering, 2003.

expected to still be below 1 minute (the threshold of significance set by the City of Oakland concerning waiting time at BART gates) with the addition of anticipated BART riders from the Uptown Project.

During the evening peak hour (5:00 p.m. to 6:00 p.m.), passengers exiting the 19<sup>th</sup> Street BART station will increase by approximately 19 percent due to the Project. Currently, most riders enter the station during the evening peak hour. Therefore, the Project-related increase in passengers exiting the station during evening peak hour will help balance the inflow and outflow of passengers. On average, the Uptown Project will result in six more people from a train on the busiest line and these people will disperse to 10 exit gates. The current maximum wait time to pass through the exit gates is approximately 10 seconds, therefore the Uptown Project is not expected to impact the operation of the 19<sup>th</sup> Street BART station.

The Project impact on the 19<sup>th</sup> Street BART station by new entering passengers is shown in Table IV.D-34, and the Project impact on exiting passengers is shown in Table IV.D-35.

**(2) Project AC Transit Ridership.** The potential Project-related impacts on AC Transit were evaluated by calculating the total number of bus trips generated by the Project and then distributing the bus trips to the bus lines near the Project based on their current peak hour riderships. The percentage increase of riders on each bus line was computed to determine if it exceeds the 3 percent threshold of significance set by the City of Oakland concerning impacts on bus services.

**Table IV.D-34: 19<sup>th</sup> Street BART Station Entry Gates**

	Time	Existing Number of Passengers	New Passengers	Project Related Percentage Increase in Passengers	Average Passengers Per Gate Per Minute With The Project	Average Passengers Per Gate Per Minute Added By The Project
Entries	8-9 a.m.	552	94	17.1%	2.7	0.4
	5-6 p.m.	1,728	45	2.6%	3.0	0.1

Source: BART, April and May 2003; Korve Engineering, 2003

**Table IV.D-35: 19<sup>th</sup> Street BART Station Exit Gates**

	Time	Existing Number of Passengers	New Passengers	Project Related Percentage Increase in Passengers	Average Number of People From a Train on the Busiest Line*	Average Number of People From a Train on the Busiest Line Added by the Project
Exits	8-9am	1,702	18	1.1%	55	1.1
	5-6pm	489	92	18.7%	27	5.8

\* Pittsburg/Bay Point–Millbrae line for AM and Millbrae–Pittsburg/Bay Point line for PM.

Source: BART, April and May 2003; Korve Engineering, 2003.

Referring to Table IV.D-36, the Project is expected to increase the ridership of bus lines #11 and #12 by more than 3 percent. However, these bus lines have relatively low maximum load factors that are all considerably below the maximum desirable load factor of 125 percent. The percentage increases of riders due to the Uptown Project will be below 3 percent for all the other bus lines near the Project.

The maximum load factors are high on bus lines 40/40L, 43, 51 and 72 based on the most recent data from AC Transit that has been collected in the last couple of years. To improve bus service in the area, AC Transit introduced a set of service improvements on June 31, 2003. Improvements included increasing the frequency of bus #51 during peak periods and replacing the old 72L and 73 bus lines with 72M and 72R in order to strengthen services along San Pablo Avenue. In addition, there are seven other bus lines not included in Table IV.D-31 that run a few blocks from the Project site. Some Project-related bus trips are expected to use these additional bus lines. Therefore, the actual new maximum load factors are expected to be significantly lower than those calculated from AC Transit data.

**(3) Transit Impacts and Mitigation Measures.** The proposed Project would result in less than a 1 percent increase in the ridership on any BART line at the 19<sup>th</sup> Street station. Therefore, no significant Project related impact to BART is anticipated. As shown in Table IV.D-36, the Uptown Project will not increase the ridership on an AC Transit route by 3 percent where the maximum load factor with the Project completed will exceed 125 percent. Therefore, the proposed Project would not impact AC Transit.

**Table IV.D-36: AC Transit Ridership**

Line	Direction	AM Peak			PM Peak		
		New Riders	Percent Increase	New Maximum Load Factor	New Riders	Percent Increase	New Maximum Load Factor
11	NB	1	3.5%	38%	1	5.5%	26%
	SB	1	2.5%	35%	5	4.0%	108%
12	NB	2	3.1%	48%	2	3.6%	55%
	SB	2	3.1%	57%	1	3.8%	33%
15	NB	3	2.2%	78%	3	2.9%	61%
	SB	(No data available)					
40/40L	NB	6	2.7%	124%	5	2.9%	113%
	SB	6	2.1%	162%	6	2.8%	129%
43	NB	6	2.6%	168%	7	2.8%	176%
	SB	5	2.3%	143%	5	2.6%	117%
51	NB	5	2.6%	128%	8	2.1%	265%
	SB	5	2.7%	123%	4	2.7%	115%
72	NB	5	2.6%	82%	4	2.8%	67%
	SB	12	2.7%	190%	4	2.7%	65%

Source: Howard Der, AC Transit Long Range Planning & Data Analysis Department. Korve Engineering, 2003.

The Project will primarily result in increased ridership on BART and AC Transit in the off-peak direction, therefore utilizing available capacity in the existing transit system. All the potential transit impacts are below the threshold of significance set by the City of Oakland and do not exceed the ACCMA performance measures outlined in the 2001CMP; therefore, significant impacts related to transit are anticipated as a result of the Uptown Project.

### 3. ACCMA Land Use Analysis

This section provides a summary of the traffic operations analysis based on the Alameda County Congestion Management Agency (ACCMA)'s model with the ACCMA land use projections. Based on the ACCMA's model without the City's land-use assumptions, traffic volume increases for each study intersection were estimated. The ACCMA's Model with ACCMA's land use generally results in lower traffic levels than that of the City of Oakland's updated land use.

Table IV.D-37 summarizes the LOS and average vehicle delay for the 2010 and 2025 analysis based on the ACCMA land use projections. The delays are generally slightly less than the delays based on the City of Oakland's updated land use.

A comparison of the traffic analysis based on the ACCMA and City of Oakland's updated land uses, indicate that ten of the study intersections would operate at a better level of service during at least one of the peak periods based on the ACCMA land uses.

The ACCMA analysis identified no additional Project-related traffic impacts.

**Table IV.D-37: Summary Level of Service Analysis – ACCMA Land Use**

	Intersection	Peak Hour	Intersection LOS (Average Vehicle Delay in Seconds)				
			Existing	Year 2010		Year 2025	
				No Project	With Project	No Project	With Project
1	San Pablo Ave/31 <sup>st</sup> Street	PM	A (9.5)	B (11.0)	B (11.1)	B (11.0)	B (11.1)
2	San Pablo Ave/Market /25 <sup>th</sup> Street	PM	A (9.9)	B (12.2)	B (12.2)	B (12.2)	B (12.2)
3	San Pablo Ave/27 <sup>th</sup> Street	PM	B (12.3)	E (60.9)	E (65.5)	E (60.9)	E (65.5)
4	San Pablo Ave/West/25 <sup>th</sup> Street	PM	B (14.3)	B (16.6)	B (17.0)	B (16.6)	B (17.0)
5	San Pablo Ave/West Grand Ave	PM	B (16.9)	E (73.7)	F (98.1)	E (73.7)	F (98.1)
6	San Pablo Ave/Thomas L. Berkley Way (20 <sup>th</sup> Street)	PM	B (13.1)	C (33.6)	F (121.6)	C (34.0)	F (121.9)
7	San Pablo Ave/William Street	PM	A (1.4)	A (1.5)	A (1.5)	A (1.5)	A (1.5)
8	San Pablo Ave/19 <sup>th</sup> Street	PM	C (24.7)	C (26.2)	C (28.2)	C (26.3)	C (28.2)
9	San Pablo Ave/18 <sup>th</sup> Street	PM	A (2.9)	A (2.2)	A (2.3)	A (2.2)	A (2.3)
10	San Pablo Ave/17 <sup>th</sup> Street	PM	B (19.9)	C (20.5)	C (20.5)	C (20.5)	D (20.5)
11	Telegraph Ave/West Grand Ave	PM	C (20.0)	C (25.9)	D (36.2)	E (56.6)	E (76.2)
12	Telegraph Ave/Thomas L. Berkley Way (20 <sup>th</sup> Street)	PM	B (10.4)	B (18.0)	C (21.7)	F (263.4)	F (252.0)
13	Telegraph Ave/William Street	PM	A (2.6)	A (6.1)	B (10.7)	E (77.6)	F (86.8)
14	Telegraph Ave/19 <sup>th</sup> Street	PM	B (10.9)	D (40.5)	E (78.1)	D (40.5)	E (78.1)
15	Telegraph Ave/18 <sup>th</sup> Street	PM	A (5.6)	A (7.5)	A (9.3)	A (7.8)	A (9.8)
16	Telegraph Ave/17 <sup>th</sup> Street	PM	B (9.6)	B (10.3)	B (10.6)	B (12.4)	B (12.9)
17	Broadway/West Grand Ave	PM	D (38.4)	D (48.8)	D (54.0)	D (49.3)	E (64.5)
18	Broadway/Thomas L. Berkley Way (20 <sup>th</sup> Street)	PM	B (12.4)	B (12.5)	B (13.0)	B (12.6)	B (13.1)
19	Broadway/19 <sup>th</sup> Street	PM	B (13.6)	B (14.3)	B (14.5)	C (22.3)	C (26.6)
20	Broadway/17 <sup>th</sup> Street	PM	B (12.9)	B (13.8)	B (14.0)	B (15.4)	B (15.9)
21	Broadway/15 <sup>th</sup> Street	PM	A (8.5)	A (8.9)	A (8.8)	B (10.0)	A (10.0)
22	Broadway/14 <sup>th</sup> Street	PM	B (13.5)	B (14.0)	B (14.3)	B (14.0)	B (14.3)
23	Frontage Road/West Grand Ave	PM	E (57.7)	F (101.7)	F (104.7)	F (212.3)	F (214.5)
24	Mandela Pkwy/West Grand Ave	PM	B (19.9)	C (24.0)	C (25.1)	E (67.1)	E (78.8)
25	Northgate Ave/West Grand Ave	PM	C (26.5)	D (43.1)	D (49.6)	E (69.7)	E (77.4)
26	Webster Street/Grand Avenue	PM	C (22.2)	C (23.8)	C (23.8)	C (25.0)	C (25.7)
27	Harrison Street/Grand Avenue	PM	C (27.9)	D (45.9)	D (49.7)	D (52.1)	E (56.6)
28	El Embarcadero/Grand Avenue	PM	C (25.2)	C (28.9)	C (30.9)	C (31.9)	C (34.0)
29	MacArthur Blvd/Grand Avenue	PM	C (27.9)	C (29.8)	C (34.1)	D (43.7)	D (52.1)
30	MacArthur Blvd/Lakeshore Ave	PM	C (23.7)	C (24.7)	C (26.7)	C (28.9)	C (30.3)
31	Lake Park Ave/Lakeshore Ave	PM	C (34.9)	D (36.6)	D (40.3)	D (41.0)	D (45.9)
32	Brush Street/18 <sup>th</sup> Street	PM	A (9.4)	A (9.6)	B (10.7)	A (9.6)	B (10.6)
33	Castro Street/18 <sup>th</sup> Street	PM	B (14.0)	C (34.5)	D (43.3)	D (44.8)	D (53.9)
34	Martin Luther King Jr. Way/18 <sup>th</sup> St.	PM	B (11.9)	B (13.4)	B (13.7)	B (14.2)	B (14.5)
35	Brush Street/17 <sup>th</sup> Street	PM	B (10.0)	B (10.6)	B (10.7)	B (11.6)	B (11.8)
36	Castro Street/17 <sup>th</sup> Street	PM	C (28.1)	C (28.5)	C (29.9)	C (30.7)	C (32.8)
37	Martin Luther King Jr. Way/17 <sup>th</sup> St.	PM	B (10.6)	B (10.9)	B (10.9)	B (11.1)	B (11.2)
38	Jefferson Street/17 <sup>th</sup> Street	PM	B (10.3)	B (10.5)	B (10.5)	B (10.8)	B (10.7)
39	Franklin Street/17 <sup>th</sup> Street	PM	B (12.5)	C (21.8)	C (26.4)	D (40.4)	D (48.9)
40	Webster Street/17 <sup>th</sup> Street	PM	B (10.6)	B (11.6)	B (12.1)	B (12.6)	B (13.2)

Note: Intersections 7 and 9 (San Pablo Avenue/William Street and San Pablo Avenue/18<sup>th</sup> Street) are stop controlled and traffic signals exist at the remaining 38 study intersections.

Source: Korve Engineering, 2003.



## E. AIR QUALITY

This section describes existing air quality conditions in the region and the Oakland area. Impacts that may result from Project are identified, and mitigation measures to reduce potential impacts are recommended where feasible.

### 1. Setting

This setting subsection begins with a brief review of the five key issues addressed in this air quality analysis. It then summarizes the ambient standards, regulatory framework, and attainment status of the San Francisco Bay Area. The subsection concludes with the area's existing climate and general air quality conditions.

**a. Air Quality Issues.** Five key air quality issues are of greatest concern in this analysis: construction equipment exhaust, CO hotspots, vehicle emissions, fugitive dust, and odors.

**(1) Construction Equipment Exhaust.** Construction activities cause combustion emissions from utility engines, heavy-duty construction vehicles, equipment which hauls materials to and from construction sites and motor vehicles that transport construction crews. Exhaust emissions from construction activities vary daily as construction activity levels change. The use of construction equipment results in localized exhaust emissions.

**(2) Fugitive Dust.** Fugitive dust emissions are generally associated with demolition, land clearing, exposure of soils to the air, and cut and fill operations. Dust generated during construction varies substantially on a project by project basis, depending on the level of activity, soils types, specific construction operations, and weather conditions. Particulate matter (or PM<sub>10</sub>) is the specific emission of concern. However, there are a number of feasible control measures that can be implemented to significantly reduce PM<sub>10</sub> emissions from construction. Rather than attempting to provide detailed quantification of anticipated construction emissions from projects, the BAAQMD suggests the following:

“The determination of significance with respect to construction emissions should be based on a consideration of the control measures to be implemented. From the Districts’ perspective, quantification of emissions is not necessary, although a lead agency may elect to do so. If all of the control measures indicated as appropriate, depending on the size of the project are implemented, then air pollution from emissions from construction activities would be considered a less-than-significant impact.”<sup>1</sup>

**(3) Vehicle Emissions.** Long-term air emission impacts are those associated with changes in automobile travel within the City. Mobile source emissions would result from vehicle trips associated with increased vehicular travel. As is true throughout much of the U.S., motor vehicle use is projected to increase substantially in the region.

**(4) Local Carbon Monoxide Hotspots.** Local air quality is most affected by CO emissions from motor vehicles. CO is typically the pollutant of greatest concern because it is created in

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<sup>1</sup> Bay Area Air Quality Management District, 1996. *BAAQMD CEQA Guidelines Assessing the Air Quality Impacts of Projects and Plans*. April. (Amended in December 1999.)



abundance by motor vehicles and it does not readily disperse into the air. Because CO does not readily disperse, areas of vehicle congestion can create “pockets” of high CO concentration called “hot spots.”

While CO transport is limited, it does disperse with distance from the source under normal meteorological conditions. However, under certain extreme meteorological conditions, CO concentrations near congested roadways or intersections may reach unhealthful levels affecting local sensitive receptors (e.g., residents, schoolchildren, the elderly, hospital patients, etc). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with extremely high traffic volumes.

**(5) Odors.** Odors are also an important element of local air quality conditions. Specific activities allowed within many land use categories can raise concerns on the part of nearby neighbors. Major sources of odors include restaurants, manufacturing plants, and agricultural operations, though industrial facilities within Oakland can also produce unacceptable levels of odors. While sources that generate objectionable odors must comply with air quality regulations, the public’s sensitivity to locally produced odors often exceeds regulatory thresholds and complaints result.

**b. Air Quality Standards, Regulatory Framework, and Attainment Status.** Air quality standards, the regulatory framework, and State and federal attainment status are discussed below.

**(1) Air Quality Standards.** Both the State and federal governments have established health-based Ambient Air Quality Standards for six air pollutants: carbon monoxide (CO), ozone (O<sub>3</sub>), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), lead (Pb), and suspended particulate matter (PM). In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride and visibility reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

In addition to *primary* and *secondary* Ambient Air Quality Standards, the State of California has established a set of *episode* criteria for O<sub>3</sub>, CO, NO<sub>2</sub>, SO<sub>2</sub>, and PM. These criteria refer to episode levels representing periods of short-term exposure to air pollutants that actually threaten public health. Health effects are progressively more severe as pollutant levels increase from Stage One to Stage Three.

California Ambient Air Quality Standards and National Ambient Air Quality Standards for the criteria air pollutants are listed in Table IV.E-1. Health effects of these criteria pollutants are described in Table IV.E-2.

**(2) Regulatory Framework.** The Bay Area Air Quality Management District (BAAQMD) is primarily responsible for regulating air pollution emissions from stationary sources (e.g., factories) and indirect sources (e.g., traffic associated with new development), as well as for monitoring ambient pollutant concentrations. Indirect sources are facilities that do not have equipment that directly emits substantial amounts of pollution, but that attract large numbers of mobile sources of pollution. The California Air Resources Board and the U.S. Environmental Protection Agency regulate direct emissions from motor vehicles.

**Table IV.E-1: Air Quality Standards**

Pollutant	Averaging Time	California Standards	Federal Standards
Carbon Monoxide (CO)	8-hour	9 ppm	9 ppm
	1-hour	20 ppm	35 ppm
Nitrogen Dioxide (NO <sub>2</sub> )	Annual Arithmetic Mean	—	0.053 ppm
	1-hour	0.25 ppm	—
Ozone (O <sub>3</sub> )	1-hour	0.09 ppm	0.12 ppm
	8-hour	—	0.08 ppm
Lead (Pb)	Quarterly	—	1.5 µg/m <sup>3</sup>
	30-day	1.5 µg/m <sup>3</sup>	—
Particulate Matter (PM <sub>10</sub> )	24-hour	50 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>
	Annual Arithmetic Mean	20 µg/m <sup>3</sup>	50 µg/m <sup>3</sup>
Particulate Matter (PM <sub>2.5</sub> )	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	15 µg/m <sup>3</sup>
	24-hour	—	65 µg/m <sup>3</sup>
Sulfur Dioxide (SO <sub>2</sub> )	Annual Arithmetic Mean	—	0.03 ppm
	24-hour	0.04 ppm	0.14 ppm
	3-hour	—	0.50 ppm
	1-hour	0.25 ppm	—

Notes:

ppm = parts per million

µg/m<sup>3</sup> = micrograms per cubic meter

Source: U.S. Environmental Protection Agency and California Air Resources Board, 2003.

**Federal Clean Air Act.** The Federal 1970 Clean Air Act authorized the establishment of national health-based air quality standards and also set deadlines for their attainment. The Federal Clean Air Act Amendments of 1990 changed deadlines for attaining National Ambient Air Quality Standards as well as the remedial actions required of areas of the nation that exceed the standards. Under the Clean Air Act, State and local agencies in areas that exceed the National Ambient Air Quality Standards are required to develop State Implementation Plans to show how they will achieve the National Ambient Air Quality Standards for ozone (O<sub>3</sub>) by specific dates.

The Clean Air Act requires that projects receiving federal funds demonstrate conformity to the approved State Implementation Plan and local air quality attainment plan for the region. Conformity with the State Implementation Plan requirements would satisfy the Clean Air Act requirements.

**California Clean Air Act.** In 1988, the California Clean Air Act required that all air districts in the State endeavor to achieve and maintain California Ambient Air Quality Standards for O<sub>3</sub>, CO, SO<sub>2</sub> and NO<sub>2</sub> by the earliest practical date. Plans for attaining California Ambient Air Quality Standards were submitted to the California Air Resource Board by June 30, 1991, 1994, 1997 and 2000. The California Clean Air Act provided districts with new authority to regulate indirect sources and mandates that air quality districts focus particular attention on reducing emissions from

**Table IV.E-2: Health Effects of Major Criteria Pollutants**

<b>Pollutants</b>	<b>Sources</b>	<b>Primary Effects</b>
Carbon Monoxide (CO)	<ul style="list-style-type: none"> <li>Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust.</li> <li>Natural events, such as decomposition of organic matter.</li> </ul>	<ul style="list-style-type: none"> <li>Reduced tolerance for exercise.</li> <li>Impairment of mental function.</li> <li>Impairment of fetal development.</li> <li>Death at high levels of exposure.</li> <li>Aggravation of some heart diseases (angina).</li> </ul>
Nitrogen Dioxide (NO <sub>2</sub> )	<ul style="list-style-type: none"> <li>Motor vehicle exhaust.</li> <li>High temperature stationary combustion.</li> <li>Atmospheric reactions.</li> </ul>	<ul style="list-style-type: none"> <li>Aggravation of respiratory illness.</li> <li>Reduced visibility.</li> <li>Reduced plant growth.</li> <li>Formation of acid rain.</li> </ul>
Ozone (O <sub>3</sub> )	<ul style="list-style-type: none"> <li>Atmospheric reaction of organic gases with nitrogen oxides in sunlight.</li> </ul>	<ul style="list-style-type: none"> <li>Aggravation of respiratory and cardiovascular diseases.</li> <li>Irritation of eyes.</li> <li>Impairment of cardiopulmonary function.</li> <li>Plant leaf injury.</li> </ul>
Lead (Pb)	<ul style="list-style-type: none"> <li>Contaminated soil.</li> </ul>	<ul style="list-style-type: none"> <li>Impairment of blood function and nerve construction.</li> <li>Behavioral and hearing problems in children.</li> </ul>
Fine Particulate Matter (PM <sub>10</sub> )	<ul style="list-style-type: none"> <li>Stationary combustion of solid fuels.</li> <li>Construction activities.</li> <li>Industrial processes.</li> <li>Atmospheric chemical reactions.</li> </ul>	<ul style="list-style-type: none"> <li>Reduced lung function.</li> <li>Aggravation of the effects of gaseous pollutants.</li> <li>Aggravation of respiratory and cardiorespiratory diseases.</li> <li>Increased cough and chest discomfort.</li> <li>Soiling.</li> <li>Reduced visibility.</li> </ul>
Fine Particulate Matter (PM <sub>2.5</sub> )	<ul style="list-style-type: none"> <li>Fuel combustion in motor vehicles, equipment, and industrial sources.</li> <li>Residential and agricultural burning.</li> <li>Industrial processes.</li> <li>Also formed from photochemical reactions of other pollutants, including NO<sub>x</sub>, sulfur oxides, and organics.</li> </ul>	<ul style="list-style-type: none"> <li>Increases respiratory disease.</li> <li>Lung damage.</li> <li>Cancer and premature death.</li> <li>Reduces visibility and results in surface soiling.</li> </ul>
Sulfur Dioxide (SO <sub>2</sub> )	<ul style="list-style-type: none"> <li>Combustion of sulfur-containing fossil fuels.</li> <li>Smelting of sulfur-bearing metal ores.</li> <li>Industrial processes.</li> </ul>	<ul style="list-style-type: none"> <li>Aggravation of respiratory diseases (asthma, emphysema).</li> <li>Reduced lung function.</li> <li>Irritation of eyes.</li> <li>Reduced visibility.</li> <li>Plant injury.</li> <li>Deterioration of metals, textiles, leather, finishes, coatings, etc.</li> </ul>

Source: California Air Resources Board, 2002.

transportation and area-wide emission sources. Each district plan is to achieve a 5 percent annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each nonattainment pollutant or its precursors. Additional physical or economic development within the region would tend to impede the emissions reduction goals of the California Clean Air Act.

**(3) Attainment Status Designations.** The California Air Resources Board is required to designate areas of the state as attainment, nonattainment or unclassified for any state standard. An “attainment” designation for an area signifies that pollutant concentrations did not violate the standard for that pollutant in that area. A “nonattainment” designation indicates that a pollutant concentration violated the standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. An “unclassified” designation signifies that data does not support either an attainment or nonattainment status. The California Clear Air Act divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

The U.S. Environmental Protection Agency designates areas for O<sub>3</sub>, CO, and NO<sub>2</sub> as either “does not meet the primary standards,” or “cannot be classified” or “better than national standards.” For SO<sub>2</sub>, areas are designated as “does not meet the primary standards,” “does not meet the secondary standards,” “cannot be classified” or “better than national standards.” In 1991, new nonattainment designations were assigned to areas that had previously been classified as Group I, II, or III for PM<sub>10</sub> based on the likelihood that they would violate national PM<sub>10</sub> standards. All other areas are designated “unclassified.”

Table IV.E-3 provides a summary of the attainment status for the San Francisco Bay Area with respect to national and State ambient air quality standards.

**c. Existing Climate and Air Quality.** The following provides a discussion of the regional air quality, local climate and air quality in the Northern Alameda and Western Contra Costa Counties subregion of the San Francisco Bay Area, and air pollution climatology.

**(1) Air Pollution Climatology.** The amount of a given air pollutant in the atmosphere is determined by the amount of pollutant released and the atmosphere’s ability to transport and/or dilute that pollutant. The major determinants of transport and dilution are wind, atmospheric stability, terrain and for photochemical pollutants, sunshine.

**(2) Regional Air Quality.** The City of Oakland is located in the San Francisco Bay Area, a large shallow air basin ringed by hills that taper into a number of sheltered valleys around the perimeter. Two primary atmospheric outlets exist: the Golden Gate, a direct outlet to the Pacific Ocean, and the west delta region of the Sacramento and San Joaquin Rivers.

The City of Oakland is within the jurisdiction of the BAAQMD, which regulates air quality in the San Francisco Bay Area. Air quality conditions in the San Francisco Bay Area have improved significantly since the District was created in 1955. Ambient concentrations of air pollutants and the number of days during which the region exceeds air quality standards have fallen dramatically. In June 1995, the Bay Area was designated as being in attainment for the federal O<sub>3</sub> standard. However, the U.S. Environmental Protection Agency changed the Bay Area back to nonattainment status in August 1998 due to new exceedances of the standard in 1995 and 1996. The BAAQMD submitted an Ozone

**Table IV.E-3: Bay Area Attainment Status as of January 2003**

Pollutant	Averaging Time	California Standards <sup>a</sup>		National Standards <sup>b</sup>	
		Concentration	Attainment Status	Concentration	Attainment Status
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m <sup>3</sup> )	Attainment	9 ppm (10 mg/m <sup>3</sup> )	Attainment <sup>c</sup>
	1-Hour	20 ppm (23 mg/m <sup>3</sup> )	Attainment	35 ppm (40 mg/m <sup>3</sup> )	Attainment
Nitrogen Dioxide (NO <sub>2</sub> )	Annual Mean	Not Applicable	Not Applicable	0.053 ppm (100 µg/m <sup>3</sup> )	Attainment
	1-Hour	0.25 ppm (470 µg/m <sup>3</sup> )	Attainment	Not Applicable	Not Applicable
Ozone (O <sub>3</sub> )	8-Hour	Not Applicable	Not Applicable	0.08 ppm	Unclassified
	1-Hour	0.09 ppm (180 µg/m <sup>3</sup> )	Nonattainment	0.12 ppm (235 µg/m <sup>3</sup> )	Nonattainment <sup>d</sup>
Particulate Matter (PM <sub>10</sub> )	Annual Mean	20 µg/m <sup>3</sup>	Nonattainment <sup>e</sup>	50 µg/m <sup>3</sup>	Attainment
	24-Hour	50 µg/m <sup>3</sup>	Nonattainment	150 µg/m <sup>3</sup>	Unclassified
Particulate Matter – Fine (PM <sub>2.5</sub> )	Annual Mean	12 µg/m <sup>3</sup>	Nonattainment	15 µg/m <sup>3</sup>	Unclassified
	24-Hour	Not Applicable	Not Applicable	65 µg/m <sup>3</sup>	Unclassified
Sulfur Dioxide (SO <sub>2</sub> )	Annual Mean	Not Applicable	Not Applicable	80 µg/m <sup>3</sup> (0.03 ppm)	Attainment
	24-Hour	0.04 ppm (105 µg/m <sup>3</sup> )	Attainment	365 µg/m <sup>3</sup> (0.14 ppm)	Attainment
	1-Hour	0.25 ppm (655 µg/m <sup>3</sup> )	Attainment	Not Applicable	Not Applicable

<sup>a</sup> California standards for O<sub>3</sub>, CO (except Lake Tahoe), SO<sub>2</sub> (1-hour and 24-hour), NO<sub>2</sub> and PM<sub>10</sub> are values that are not to be exceeded. If the standard is for a 1-hour, 8-hour, or 24-hour average, then some measurements may be excluded. In particular, measurements are excluded that ARB determines would occur less than once per year on the average.

<sup>b</sup> National standards other than for O<sub>3</sub> and those based on annual averages or annual arithmetic means are not to be exceeded more than once a year. For example, the O<sub>3</sub> standard is attained if, during the most recent 3-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one.

<sup>c</sup> In April 1998, the Bay Area was redesignated to Attainment for the national 8-hour CO standard.

<sup>d</sup> In June 1995, the Bay Area was redesignated to Attainment for the national O<sub>3</sub> standard. However, the Environmental Protection Agency changed the Bay Area back to Nonattainment in August 1998, due to new exceedances in 1995 and 1996.

<sup>e</sup> In June 2002, CARB established new annual standards for PM<sub>2.5</sub> and PM<sub>10</sub>. As of July 2003, the BAAQMD did not have sufficient monitoring data for PM<sub>2.5</sub> to determine the region's attainment status with respect to these national standards. The EPA plans to propose an implementation rule for PM<sub>2.5</sub> in September 2003 and issue the final PM<sub>2.5</sub> implementation rule in September 2004. The EPA is then expected to make final designations in December 2004.

Notes: Lead (Pb) is not listed in the above table because it has been in attainment since the 1980s.

ppm = parts per million

mg/m<sup>3</sup> = milligrams per cubic meter

µg/m<sup>3</sup> = micrograms per cubic meter

Source: Bay Area Air Quality Management District, Bay Area Attainment Status as of January 2003, and Henry Hilken of the District.

Attainment Plan (1999 Plan) to the U.S. Environmental Protection Agency in August of 1999 to set policies and guidelines aimed at reducing O<sub>3</sub> in the Bay Area by November 15, 2000. The U.S. Environmental Protection Agency approved parts and disapproved parts of the 1999 Ozone Plan for failing to ensure attainment status for O<sub>3</sub>. As a result, the U.S. Environmental Protection Agency recommended to the federal government that it withhold transportation funding for specific projects within the Bay Area. The BAAQMD has developed and adopted a new plan (2001 Ozone Plan) to correct the deficiencies of the 1999 Ozone Plan and respond to the finding of failure to achieve attainment status for O<sub>3</sub>. The new plan was adopted in October 2001 by the BAAQMD's Governing Board and was approved by the California Air Resources Board in November 2001. As of January 2003, the plan is still under review by the Environmental Protection Agency.

Levels of PM<sub>10</sub> in the Bay Area currently exceed California Clean Air Act standards and, therefore, the area is considered a nonattainment area for this pollutant relative to the State standards. PM<sub>10</sub> levels monitored at the Fremont (Chapel Way) and Concord (2975 Treat Boulevard) stations (two closest monitoring stations with PM<sub>10</sub> data) exceeded the State's standard in 2000 and 2001, but were below the State's standard in 2002. The Bay Area is an unclassified area for the federal PM<sub>10</sub> standard. The federal standard was not exceeded at either of these monitoring stations in the past three years (2000 through 2002).

No exceedances of the State or federal CO standards have been recorded at any of the region's monitoring stations since 1991. The Bay Area is currently considered a maintenance area for State and federal CO standards.

The BAAQMD's Bay Area Clean Air Plans for 1991, 1994, 1997 and 2000 contain districtwide control measures to reduce CO and O<sub>3</sub> precursor emissions. Generally, the State standards for these pollutants are more stringent than the national standards.

Exceedances of air quality standards in the San Francisco Bay Area occur primarily during meteorological conditions conducive to high pollution levels, such as cold, windless winter nights or hot, sunny summer afternoons.

**(3) Local Climate and Air Quality.** The Project site is located in the Northern Alameda and Western Contra Costa Counties subregion of the San Francisco Bay Area. This climatological subregion stretches from Richmond to San Leandro. Its western boundary is defined by San Francisco Bay and its eastern boundary by the Oakland-Berkeley Hills. The Oakland-Berkeley Hills have a ridge line height of approximately 1,500 feet, a significant barrier to air flow.

In this subregion, marine air traveling through the Golden Gate, as well as across San Francisco and through the San Bruno Gap, is a dominant weather factor. The Oakland-Berkeley Hills cause the westerly flow of air to split off to the north and south of Oakland, which causes diminished wind speeds. The prevailing winds for most of this subregion are from the west.

Temperatures in this subregion have a narrow range due to the proximity of the moderating marine air. Maximum temperatures in summer average in the mid-70's, with minimums in the mid-50's. Average winter highs are in the mid- to high-50's, with lows in the low- to mid-40's.

The air pollution potential is lowest for those parts of the subregion that are closest to the bay, due largely to good ventilation and less influx of pollutants from upwind sources. The occurrence of light winds in the evenings and early mornings occasionally causes elevated pollutant levels. The air pollution potential at the northern (Richmond) and southern (Oakland, San Leandro) parts of this subregion is marginally higher than communities nearer the Golden Gate, because of the lower frequency of strong winds.

This subregion contains a variety of industrial air pollution sources, some of which are quite close to residential areas. The subregion is also traversed by frequently congested major freeways. Traffic and congestion, and the motor vehicle emissions they generate, are increasing.

Pollutant monitoring results for the years 2000 to 2002 (see Tables IV.E-4 through IV.E-7) at the Oakland (Alice Street), Concord (2975 Treat Boulevard),<sup>2</sup> Oakland (6701 International Boulevard), and Fremont (Chapel Way)<sup>3</sup> ambient air quality monitoring stations indicate that air quality in the Project area has generally been good in recent years. As indicated in the monitoring results, 18 or fewer violations per year of State PM<sub>10</sub> standard during the 3-year period were recorded and no violations of federal PM<sub>10</sub> standard were recorded. The federal PM<sub>2.5</sub> standard was not exceeded during the 3-year period and no data is available for the number of days the State PM<sub>2.5</sub> standard was exceeded. State and federal 1-hour O<sub>3</sub> standards have not been exceeded at these monitoring stations. Federal 8-hour O<sub>3</sub> standards have not been exceeded at these monitoring stations in the past three years. CO and NO<sub>2</sub> standards were not exceeded in this area during the 3-year period. SO<sub>2</sub> monitored at the Oakland-International Boulevard station did not exceed the State or federal standards in the past three years.

## 2. Impacts and Mitigation Measures

This section evaluates potential air quality impacts associated with the Specific Plan and identifies mitigation measures to address these impacts, as necessary.

**a. Significance Criteria.** The Uptown Project would result in a significant impact if it would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentrations;
- Create objectionable odors affecting a substantial number of people;
- Contribute to CO concentrations exceeding the State ambient air quality standard of 9 ppm averaged over 8 hours and 20 ppm for 1 hour;

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<sup>2</sup> PM<sub>10</sub> and PM<sub>2.5</sub> data only.

<sup>3</sup> Ibid.

**Table IV.E-4: Results from the Oakland-Alice Street Ambient Air Quality Monitoring Station Exceeded Standards, 2000 to 2002**

Year	Ozone			Carbon Monoxide		Nitrogen Dioxide		PM <sub>10</sub>		
	Max. 1-Hour (pphm)	National D-O-S	California D-O-S	Max. 1-Hour (ppm)	California D-O-S	Max. 1-Hour (pphm)	California D-O-S	Annual Geometric Mean (mg/m <sup>3</sup> )	Exceed National Standard	Exceed California Standard
2000	7.2	0	0	5.4	0	NM	NM	18	No	No
2001	6.9	0	0	5.0	0	NM	NM	20	No	No
2002	5.2	0	0	4.4	0	NM	NM	21	0	Yes

Notes: D-O-S = Days Over Standard  
 pphm = parts per hundred million  
 ppm = parts per million  
 ppb = parts per billion  
 mg/m<sup>3</sup> = milligrams per cubic meter  
 NM = not monitored  
 PM<sub>10</sub> levels obtained from Concord-2975 Treat Boulevard station

Source: Bay Area Air Quality Management District, 2003. *Annual Bay Area Air Pollution Summaries*. Website: [www.baaqmd.gov/pie/apsums.htm](http://www.baaqmd.gov/pie/apsums.htm).

**Table IV.E-5: Results from the Oakland-Alice Street Ambient Air Quality Monitoring Station Exceeded Standards, 2000 to 2002**

Year	Ozone			Carbon Monoxide		Sulfur Dioxide		PM <sub>2.5</sub>		
	Max. 8-Hour (pphm)	National D-O-S	Max. 8-Hour (ppm)	California D-O-S	Max. 24-Hour (pphm)	California D-O-S	Annual Geometric Mean (mg/m <sup>3</sup> )	Exceed National Standard	Exceed California Standard	
2000	4.8	0	3.3	0	NM	NM	11	No	No	
2001	4.5	0	4.0	0	NM	NM	10	No	No	
2002	4.3	0	3.3	0	NM	NM	13	No	Yes	

Notes: D-O-S = Days Over Standard  
 pphm = parts per hundred million  
 ppm = parts per million  
 ppb = parts per billion  
 mg/m<sup>3</sup> = milligrams per cubic meter  
 NM = not monitored  
 ND = no data available  
 PM<sub>2.5</sub> levels obtained from Concord-2975 Treat Boulevard station

Source: Bay Area Air Quality Management District, 2003. *Annual Bay Area Air Pollution Summaries*. Website: [www.baaqmd.gov/pie/apsums.htm](http://www.baaqmd.gov/pie/apsums.htm).



**Table IV.E-6: Results from the Oakland-6701 International Boulevard Ambient Air Quality Monitoring Station Exceeded Standards, 2000 to 2002**

Year	Ozone			Carbon Monoxide		Nitrogen Dioxide		PM <sub>10</sub>		
	Max. 1-Hour (pphm)	National D-O-S	California D-O-S	Max. 1-Hour (ppm)	California D-O-S	Max. 1-Hour (pphm)	California D-O-S	Annual Geometric Mean (mg/m <sup>3</sup> )	Exceed National Standard	Exceed California Standard
2000	NM	NM	NM	NM	NM	NM	NM	22	No	Yes
2001	3.8	0	0	5.8	0	6.2	0	23	No	Yes
2002	8.4	0	0	7.7	0	8.0	0	23	No	Yes

Notes: D-O-S = Days Over Standard  
 pphm = parts per hundred million  
 ppm = parts per million  
 ppb = parts per billion  
 mg/m<sup>3</sup> = milligrams per cubic meter  
 NM = not monitored  
 PM<sub>10</sub> levels obtained at the Fremont-Chapel Way station

Source: Bay Area Air Quality Management District, 2003. *Annual Bay Area Air Pollution Summaries*. Website: [www.baaqmd.gov/pie/apsums.htm](http://www.baaqmd.gov/pie/apsums.htm).

**Table IV.E -7: Results from the Oakland-6701 International Boulevard Ambient Air Quality Monitoring Station Exceeded Standards, 2000 to 2002**

Year	Ozone			Carbon Monoxide		Sulfur Dioxide		PM <sub>2.5</sub>		
	Max. 8-Hour (pphm)	National D-O-S	Max. 8-Hour (ppm)	California D-O-S	Max. 24-Hour (pphm)	California D-O-S	Annual Geometric Mean (mg/m <sup>3</sup> )	Exceed National Standard	Exceed California Standard	
2000	NM	NM	NM	NM	NM	NM	11	No	No	
2001	3.4	0	3.2	0	0.4	0	12	No	No	
2002	5.6	0	5.1	0	0.6	0	13	No	Yes	

Notes: D-O-S = Days Over Standard  
 pphm = parts per hundred million  
 ppm = parts per million  
 ppb = parts per billion  
 mg/m<sup>3</sup> = milligrams per cubic meter  
 NM = not monitored  
 ND = no data available  
 PM<sub>2.5</sub> levels obtained from the Fremont-Chapel Way station

Source: Bay Area Air Quality Management District, 2003. *Annual Bay Area Air Pollution Summaries*. Website: [www.baaqmd.gov/pie/apsums.htm](http://www.baaqmd.gov/pie/apsums.htm).

- Result in total emissions of ROG, NO<sub>x</sub>, or PM<sub>10</sub> of 15 tons per year or greater, or 80 pounds (36 kilograms) per day or greater;
- Result in potential to expose persons to substantial levels of TACs, such that the probability of contracting cancer for the Maximally Exposed Individual (MEI) exceeds 10 in one million;
- Result in ground level concentrations of non-carcinogenic toxic air contaminants such that the Hazard Index would be greater than 1 for the MEI; or
- Result in a fundamental conflict with the local general plan, when the general plan is consistent with the regional air quality plan. When the general plan fundamentally conflicts with the regional air quality plan, then if the contribution of the proposed Project is cumulatively considerable when analyzed the impact to air quality should be considered significant.

For project-level impact analysis, the BAAQMD provides various thresholds and tests of significance. For ROG, NO<sub>x</sub> and PM<sub>10</sub>, a net increase of 80 pounds per day is considered significant, while for CO, an increase of 550 pounds per day would be considered significant if it leads to or contributes to CO concentrations exceeding the State Ambient Air Quality Standard of 9 ppm averaged over 8 hours and 20 ppm for 1 hour (i.e., if it creates a “hot spot”). Generally, if a project results in an increase in ROG, NO<sub>x</sub>, or PM<sub>10</sub> of more than 80 pounds per day, then it would also be considered to contribute considerably to a significant cumulative effect. For projects that would not lead to a significant increase of ROG, NO<sub>x</sub>, or PM<sub>10</sub> emissions, the cumulative effect is evaluated based on a determination of the consistency of the project with the regional Clean Air Plan. These criteria recommended by the BAAQMD are consistent with the criteria used by the City of Oakland, listed above.

Impacts from PM<sub>2.5</sub> emissions have not been analyzed quantitatively as there are no recommended significance thresholds from the BAAQMD or the City of Oakland. Also, the air quality models that are used to estimate emissions of ROG, NO<sub>x</sub>, CO and PM<sub>10</sub> currently do not have the capability to estimate PM<sub>2.5</sub> separately. Therefore, impacts from PM<sub>2.5</sub> emissions from the Project (particularly the diesel particulate matter) have been analyzed qualitatively.

#### **b. Less-than-Significant Air Quality Impacts.**

**(1) Local Plan Consistency.** The population in the City of Oakland is expected to grow from 399,484 people under the existing condition (2000) to 443,203 people in year 2025. The projected growth is 43,717 people over a 23-year period. This amounts to approximately a 0.4 percent annual growth rate.

The Bay Area 2000 Clean Air Plan (CAP) does not list growth or growth rates in population or vehicle miles traveled (VMT) by each City. However, based on the Association of Bay Area Governments (ABAG) projections, total population in Alameda County is projected to grow from 1,453,000 people in year 2000 to 1,556,600 people in year 2010. This growth rate is approximately 7.1 percent over a 10-year period, or approximately 0.7 percent a year.

Figure 3 on page 6 of the Bay Area 2000 CAP depicts the growth in population, vehicles, and vehicle miles traveled in the Bay Area. This figure shows that VMT growth (80 percent growth from 1980 to 2006, or approximately 2.3 percent a year) outpaced population growth (40 percent growth from 1980

to 2006, or approximately 1.3 percent a year) in the Bay Area. Although there is no comparable figure to show such growth for the City of Oakland, it is assumed that the City generally falls within such growth rates.

The proposed Project will add 1,300 residential units and 1,050 student/faculty beds to the City. The proposed Project will increase the City's population by approximately 3,266 people. This growth is consistent with what is anticipated under the City's General Plan and falls within the population projections prepared by ABAG. The proposed Uptown Project will not require any amendments to the City's General Plan. As a result, it will not conflict with the Bay Area 2000 CAP. In addition, the proposed Project is a mixed-use development along a major set of transit corridors. Therefore, the Project will be moving residents closer to the downtown work area potentially reducing the vehicle miles traveled within the City.

**(2) Carbon Monoxide Concentrations.** Traffic generated by the proposed Project would contribute to local carbon monoxide concentrations. On the local scale the pollutant of greatest concern is carbon monoxide. Concentrations of this pollutant are related to the levels of traffic and congestion along streets and at intersections. The CALINE-4 computer simulation model was used to evaluate nine intersections near the Project site. These intersections were selected on the basis of PM peak hour level of service.

The results of the CALINE-4 modeling for the nine selected intersections are shown in Table IV.E-8. Concentrations are shown for three scenarios:

- Existing Traffic (Year 2003)
- Year 2025 Without Project
- Year 2025 With Project

The predicted 1-hour concentrations in Table IV.E-8 are to be compared to the State and federal ambient 1-hour air quality standards of 20 ppm and 35 ppm, respectively. Predicted 8-hour concentrations in Table IV.E-8 are to be compared to the State and federal 8-hour standards of 9 ppm. Existing concentrations meet all ambient air quality standards.

Concentrations in 2025 are predicted to be lower than year 2003 concentrations, despite increased traffic, due to gradual reductions in emission rates for vehicles resulting from State-mandated emission control programs for automobiles. Concentrations are anticipated to remain well below the applicable standards. The impact of the proposed Project on local carbon monoxide concentrations would be considered less than significant and no mitigation would be required.

**(3) Odor Nuisance Problems.** Though offensive odors from stationary sources rarely cause any physical harm, they still remain unpleasant and can lead to public distress generating citizen complaints to local governments. The occurrence and severity of odor impacts depend on the nature, frequency and intensity of the source; wind speed and direction; and the sensitivity of receptors. Odor impacts should be considered for any proposed new odor sources located near existing receptors, as well as any new sensitive receptors located near existing odor sources. Generally, increasing the distance between a receptor and the source to an acceptable level will mitigate odor impacts. No new stationary odor sources are proposed as part of the proposed Project. Therefore, there would be no odor-related impacts on sensitive receptors.

**Table IV.E -8: Worst-Case Carbon Monoxide Concentrations near Selected Intersections<sup>a</sup>**

Intersection	Existing (2003)		Year 2025 Without Project		Year 2025 With Project	
	1-Hour	8-Hour	1-Hour	8-Hour	1-Hour	8-Hour
San Pablo Avenue and 27 <sup>th</sup> Street	6.9	5.2	5.6	4.3	5.5	4.3
San Pablo Avenue and TLB Way (20 <sup>th</sup> Street) <sup>c</sup>	6.3	4.8	5.2	4.0	5.3	4.1
Telegraph Avenue and TLB Way (20 <sup>th</sup> Street)	6.3	4.8	5.4	4.2	5.5	4.3
Telegraph Avenue and William Street	5.9	4.5	5.4	4.2	5.4	4.2
Telegraph Avenue and 19 <sup>th</sup> Street	6.2	4.7	5.5	4.3	5.5	4.3
Broadway and Grand Avenue	8.6	6.4	5.5	4.3	5.7	4.4
Frontage Road and Grand Avenue	7.5	5.7	5.6	4.3	5.7	4.4
Harrison Street and Grand Avenue	8.6	6.4	5.7	4.4	5.7	4.4
Castro Avenue and Grand Avenue	7.1	5.4	5.4	4.2	5.4	4.2
<b>Most Stringent Standard</b>	<b>20.0<sup>b</sup></b>	<b>9.0</b>	<b>20.0</b>	<b>9.0</b>	<b>20.0</b>	<b>9.0</b>

<sup>a</sup> All amounts in parts per million (ppm).

<sup>b</sup> State standard.

<sup>c</sup> TLB Way = Thomas L. Berkley Way.

Source: LSA Associates, Inc., August 2003.

**c. Significant Air Quality Impacts and Mitigation Measures.** The proposed Project would result in two significant impacts related to air quality as described below.

**Impact AIR-1: Activities associated with demolition, site preparation and construction would generate short-term emissions of criteria pollutants, including suspended and inhalable particulate matter and equipment exhaust emissions. (S)**

Project-related construction activities would include site preparation, earthmoving and general construction. Site preparation includes activities such as general land clearing and grubbing. Earthmoving activities include cut and fill operations, trenching, soil compaction and grading. General construction includes adding improvements such as roadway surfaces, structures and facilities. The emissions generated from these construction activities include:

- Dust (including PM<sub>10</sub> and PM<sub>2.5</sub>) primarily from “fugitive” sources (i.e., emissions released through means other than through a stack or tailpipe) such as soil disturbance;
- Combustion emissions of criteria air pollutants (ROG, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>) primarily from operation of heavy equipment construction machinery (primarily diesel operated), portable auxiliary equipment and construction worker automobile trips (primarily gasoline operated); and
- Evaporative emissions (ROG) from asphalt paving and architectural coating applications.

Demolition may result in airborne entrainment of asbestos, a toxic air contaminant, particularly where structures built prior to 1980 are being demolished. Some structural components of the buildings to be demolished may contain hazardous materials such as asbestos used in insulation, fire retardants, or building materials (floor tile, roofing, etc.) and lead-based paint. If asbestos were found to be present

in building materials to be removed, demolition and disposal would be required to be conducted in accordance with procedures specified by Regulation 11, Rule 2 (Asbestos Demolition, Renovation and Manufacturing) of BAAQMD's regulations. Therefore, the required compliance with existing regulations would ensure that the potential for public health hazards associated with airborne asbestos fibers or lead dust would be at a less than significant level.

Construction-related fugitive dust emissions would vary from day to day, depending on the level and type of activity, silt content of the soil, and the weather. In the absence of mitigation, construction activities may result in significant quantities of dust, and as a result, local visibility and PM<sub>10</sub> and PM<sub>2.5</sub> concentrations may be adversely affected on a temporary and intermittent basis during the construction period. In addition, the fugitive dust generated by construction would include not only PM<sub>10</sub>, but also larger particles, which would fall out of the atmosphere within several hundred feet of the site and could result in nuisance-type impacts. The BAAQMD's approach to analyses of fugitive dust emissions from construction is to emphasize implementation of effective and comprehensive dust control measures rather than detailed quantification of emissions. The District considers any project's construction related impacts to be less than significant if the required dust-control measures are implemented. Without these measures, the impact is generally considered to be significant, particularly if sensitive land uses are located in the project vicinity. In the case of this Project, residential land uses are located as close as 50 feet from the boundaries of the Project site. Therefore, without mitigation, the impact of fugitive dust emissions would be considered significant.

Construction activities would also result in the emission of ROG, NO<sub>x</sub>, CO, SO<sub>x</sub> and PM<sub>10</sub> from equipment exhaust, construction-related vehicular activity and construction worker automobile trips. Emission levels for construction activities would vary depending on the number and type of equipment, duration of use, operation schedules, and the number of construction workers. Criteria pollutant emissions of ROG and NO<sub>x</sub> from these emission sources would incrementally add to the regional atmospheric loading of ozone precursors during Project construction. BAAQMD CEQA Guidelines recognize that construction equipment emits ozone precursors, but indicate that such emissions are included in the emission inventory that is the basis for regional air quality plans. Therefore, construction emissions of ROG and NO<sub>x</sub> are not expected to impede attainment or maintenance of ozone standards in the Bay Area (BAQMD, 1999). The impact of construction equipment exhaust emissions would therefore be less than significant.

During construction various diesel-powered vehicles and equipment would be in use. In 1998 the CARB identified particulate matter from diesel-fueled engines as a toxic air contaminant (TAC). CARB has completed a risk management process that identified potential cancer risks for a range of activities using diesel-fueled engines.<sup>4</sup> High volume freeways, stationary diesel engines and facilities attracting heavy and constant diesel vehicle traffic (distribution centers, truckstop) were identified as having the highest associated risk. BAAQMD CEQA Guidelines identify the following types of facilities as a potential for exposing sensitive receptors to high levels of diesel exhaust:

- Truck stop
- Warehouse/Distribution Center
- Large retail or industrial facility

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<sup>4</sup> California Air Resources Board, *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*, October 2000.

- High volume transit center
- School with high volume of bus traffic
- High volume highway
- High volume arterial/roadway with high level of diesel traffic

Health risks from Toxic Air Contaminants are a function of both concentration and duration of exposure. Unlike the above types of sources, construction diesel emissions are temporary, affecting an area for a period of days or perhaps weeks. Additionally, construction related sources are mobile and transient in nature, and the bulk of the emission occurs within the project site at a substantial distance from nearby receptors. As a result, health risks from construction emissions of diesel particulate are not considered significant.

**Mitigation Measure AIR-1:** Implementation of the following mitigation measures would reduce this impact to a less-than-significant level.

- The basic and enhanced control measures listed in Table IV.E-9 shall be implemented during construction of the proposed Project.
- Any temporary haul roads to the soil stockpile area shall be routed away from existing neighboring land uses. Any temporary haul roads shall be surfaced with gravel and regularly watered to control dust or treated with an appropriate dust suppressant.
- Water sprays shall be utilized to control dust when material is being added or removed from the stockpile. When the stockpile is undisturbed for more than 1 week, the storage pile shall be treated with a dust suppressant or crusting agent to eliminate wind-blown dust generation.
- All neighboring properties located within 500 feet of property lines shall be provided with the name and phone number of a designated construction dust control coordinator who will respond to complaints within 24 hours by suspending dust-producing activities or providing additional personnel or equipment for dust control as deemed necessary. The phone number of the BAAQMD pollution complaints contact shall also be provided. The dust control coordinator shall be on-call during construction hours. The coordinator shall keep a log of complaints received and remedial actions taken in response. This log shall be made available to City staff upon its request.

The above mitigation measures include all feasible measures for construction emissions identified by the BAAQMD. According to the District's threshold of significance for construction impacts, implementation of the measures would reduce construction impacts of the proposed Project to a less-than-significant level. (LTS)

**Impact AIR-2: Development of the Uptown Project would result in increased regional emissions of criteria air pollutants exceeding BAAQMD Thresholds. (S)**

New emissions from the proposed Project would be from direct and indirect sources. Direct emissions consist of emissions from on-site combustion for space- and water-heating, fireplace use, and other minor sources. The overwhelming source of emissions would be indirect (i.e., related to auto and truck traffic generated by Project land uses).

**Table IV.E-9: Feasible Control Measures for Construction Emissions of PM<sub>10</sub>**

<p><b>Basic Control Measures - The following controls should be implemented at all construction sites.</b></p> <ul style="list-style-type: none"> <li>• Water all active construction areas at least twice daily.</li> <li>• Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.</li> <li>• Pave, apply water three times daily, or apply (nontoxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.</li> <li>• Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites.</li> <li>• Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.</li> </ul>
<p><b>Enhanced Control Measures - The following measures should be implemented at construction sites greater than 4 acres in area.</b></p> <ul style="list-style-type: none"> <li>• All "Basic" control measures listed above.</li> <li>• Hydroseed or apply (nontoxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).</li> <li>• Enclose, cover, water twice daily or apply (nontoxic) soil binders to exposed stockpiles (dirt, sand, etc.)</li> <li>• Limit traffic speeds on unpaved roads to 15 mph.</li> <li>• Install sandbags or other erosion control measures to prevent silt runoff to public roadways.</li> <li>• Replant vegetation in disturbed areas as quickly as possible.</li> </ul>
<p><b>Optional Control Measures - The following control measures are strongly encouraged at construction sites that are large in area, located near sensitive receptors or which for any other reason may warrant additional emissions reductions.</b></p> <ul style="list-style-type: none"> <li>• Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site.</li> <li>• Install wind breaks, or plant trees/vegetative wind breaks at windward side(s) of construction areas.</li> <li>• Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph.</li> <li>• Limit the area subject to excavation, grading, and other construction activity at any one time.</li> </ul>

Source: BAAQMD, 1999.

The URBEMIS2002 model was used to calculate emissions from all vehicle trips to or from the Project site. This analysis was based on Project buildout and assumed a year 2005 vehicle population.

Daily emissions associated with Project vehicle use are shown in Table IV.E-10. Pollutants shown include carbon monoxide, reactive organic gases (ROG) and oxides of nitrogen (NO<sub>x</sub>) (two precursors of ozone), and PM<sub>10</sub> (particulate matter, 10 micron). As shown, emissions associated with the proposed Project would exceed the BAAQMD thresholds of significance.

**Table IV.E-10: Regional Vehicular Emissions**

	Emissions (pounds/day)			
	ROG	CO	NO <sub>x</sub>	PM <sub>10</sub>
Project Emissions	131.2	1,446.0	183.2	99.6
BAAQMD Thresholds	80	550	80	80

Source: LSA Associates, Inc., 2003.

Once operational, the primary source of PM<sub>2.5</sub> emissions from the Project would be from the diesel fueled trucks delivering materials and services to businesses of the Project area. However, since no large commercial retail spaces are proposed as part of this Project, the number of truck trips associated with Project operation is not anticipated to be significant (less than six). Additionally, the number of truck trips would be distributed throughout the day and would culminate at different points

of the Project site at various businesses. Therefore, no single sensitive receptor would be exposed to emissions from all the truck trips during the day. Given the minimal number of truck trips generated by the Project, concentration of PM<sub>2.5</sub> emissions from the activity of truck trips in the Project area would not exceed the ambient air quality standards. Therefore, impact of PM<sub>2.5</sub> emissions from the Project would be less than significant.

Mitigation Measure AIR-2: To the extent permitted by law, the Uptown Project shall be required to implement Transportation Control Measures (TCMs) as recommended by the BAAQMD. However, the City of Oakland will implement as feasible on the basis that this Project is an infill mixed-used development project that in and of itself supports many Smart Growth Principals. Measures that the City may require the Project to implement, or that are already proposed as part of the Project, include the following:

- *Transit Measures*: (i) Construct transit facilities such as bus turnouts/bus bulbs, benches, shelters, etc. (Effectiveness 0.5 percent - 2 percent of all trips, BAAQMD *CEQA Guidelines*); (ii) Design and locate buildings to facilitate transit access (e.g., locate building entrances near transit stops, eliminate building setbacks, etc.) (Effectiveness 0.1 percent - 0.5 percent of all trips, BAAQMD *CEQA Guidelines*).
- *Services Measures*: (i) Provide on-site shops and services for employees, such as cafeteria, bank/ATM, dry cleaners, convenience market, etc. (Effectiveness 0.5 percent - 5 percent of work trips, BAAQMD *CEQA Guidelines*); (ii) Provide on-site child care, or contribute to off-site childcare within walking distance. (Effectiveness 0.1 percent - 1 percent of work trips, BAAQMD *CEQA Guidelines*).
- *Bicycle and Pedestrian Measures*: (i) Provide secure, weather-protected bicycle parking for employees (Effectiveness 0.5 percent - 2 percent of work trips, BAAQMD *CEQA Guidelines*); (ii) Provide safe, direct access for bicyclists to adjacent bicycle routes (Effectiveness 0.5 percent - 2 percent of work trips, BAAQMD *CEQA Guidelines*); (iii) Provide showers and lockers for employees bicycling or walking to work (Effectiveness 0.5 percent - 2 percent of work trips, BAAQMD *CEQA Guidelines*); (iv) Provide secure short-term bicycle parking for retail customers or non-commute trips (Effectiveness 1 percent - 2 percent of non-work trips, BAAQMD *CEQA Guidelines*); (v) Provide direct, safe, attractive pedestrian access from Planning Area to transit stops and adjacent development (Effectiveness 0.5 percent - 1.5 percent of all trips, BAAQMD *CEQA Guidelines*).

Implementation of the measures detailed above would help minimize this impact, but not reduce it to a less-than-significant level. Therefore, Impact AIR-2 will remain significant and unavoidable. (SU)





## F. NOISE

This section describes the general characteristics of sound and the categories of audible noise. It then summarizes the regulatory framework related to noise issues at the City, State, and federal levels. Existing sources of noise near the Project site are described. Impacts that may result from the proposed Project are identified and mitigation measures to reduce potential impacts are recommended where appropriate.

### 1. Setting

This setting section begins with an introduction to several key concepts and terms that are used in evaluating noise. It then explains the various agencies that regulate the noise environment in Oakland and summarizes key standards that are applied to proposed development. This setting section concludes with a description of current noise sources that affect the Project site and the noise conditions that are experienced in the Project vicinity.

**a. Characteristics of Sound.** To the human ear, sound has two significant characteristics: *pitch* and *loudness*. A specific pitch can be an annoyance, while loudness can affect our ability to hear. Pitch is the number of complete vibrations or cycles per second of a wave that results in the range of tone from high to low. Loudness is the strength of a sound that describes a noisy or quiet environment, and it is measured by the amplitude of the sound wave. Loudness is determined by the intensity of the sound waves combined with the reception characteristics of the human ear. Sound intensity refers to how hard the sound wave strikes an object, which in turn produces the sound's effect. This characteristic of sound can be precisely measured with instruments.

Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation or sleep.

Several noise measurement scales exist which are used to describe noise in a particular location. A *decibel* (dB) is a unit of measurement which indicates the relative intensity of a sound. The 0 point on the dB scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Changes of 3.0 dB or less are only perceptible in laboratory environments. Audible increases in noise levels generally refer to a change of 3.0 dB or more, as this level has been found to be barely perceptible to the human ear in outdoor environments. Sound levels in dB are calculated on a logarithmic basis. An increase of 10 dB represents a 10-fold increase in acoustic energy, while 20 dB is 100 times more intense, 30 dB is 1,000 times more intense. Each 10-dB increase in sound level is perceived as approximately a doubling of loudness. Sound intensity is normally measured through the *A-weighted sound level* (dBA). This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Table IV.F-1 shows representative outdoor and indoor noise levels in units of dBA.

As noise spreads from a source, it loses energy so that the farther away the noise receiver is from the noise source, the lower the perceived noise level would be. Geometric spreading causes the sound level to attenuate or be reduced, resulting in a 6-dB reduction in the noise level for each doubling of distance from a single point source of noise to the noise sensitive receptor of concern.

**b. Noise Regulatory Framework.** The following section summarizes the regulatory framework related to noise, including federal, State, and City of Oakland plans, policies and standards.

**Table IV.F-1: Typical A-Weighted Sound Levels**

Noise Source	A-Weighted Sound Level in Decibels	Noise Environments	Subjective Evaluations
Near Jet Engine	140	Deafening	128 times as loud
Civil Defense Siren	130	Threshold of Pain	64 times as loud
Hard Rock Band	120	Threshold of Feeling	32 times as loud
Accelerating Motorcycle at a few feet away	110	Very Loud	16 time as loud
Pile Driver; Noisy Urban Street/Heavy City Traffic	100	Very Loud	8 times as loud
Ambulance Siren; Food Blender	95	Very Loud	
Garbage Disposal	90	Very Loud	4 times as loud
Freight Cars; Living Room Music	85	Loud	
Pneumatic Drill; Vacuum Cleaner	80	Loud	2 times as loud
Busy Restaurant	75	Moderately Loud	
Near Freeway Auto Traffic	70	Moderately Loud	
Average Office	60	Moderate	1/2 as loud
Suburban Street	55	Moderate	
Light Traffic; Soft Radio Music in Apartment	50	Quiet	1/4 as loud
Large Transformer	45	Quiet	
Average Residence Without Stereo Playing	40	Faint	1/8 as loud
Soft Whisper	30	Faint	
Rustling Leaves	20	Very Faint	
Human Breathing	10	Very Faint	Threshold of Hearing

Source: Compiled by LSA Associates, Inc., 2002.

**(1) U.S. Environmental Protection Agency (EPA).** In 1972 Congress enacted the Noise Control Act. This act authorized the EPA to publish descriptive data on the effects of noise and establish levels of sound “requisite to protect the public welfare with an adequate margin of safety.” These levels are separated into health (hearing loss levels) and welfare (annoyance levels) as shown in Table IV.F-2. The EPA cautions that these identified levels are not standards because they do not take into account the cost or feasibility of the levels. For protection against hearing loss, 96 percent of the population would be protected if sound levels are less than or equal to an Leq(24) of 70 dB. The “(24)” signifies an Leq duration of 24 hours. The EPA activity and interference guidelines are designed to ensure reliable speech communication at about 5 feet in the outdoor environment. For outdoor and indoor environments, interference with activity and annoyance should not occur if levels do not exceed 55 dBA and 45 dBA, respectively.

**Table IV.F-2: Summary of EPA Noise Levels for Protection of Public Health and Welfare with an Adequate Margin of Safety**

Effect	Level	Area
Hearing loss	Leq(24) ≤ 70 dB	All areas.
Outdoor activity interference and annoyance	Ldn ≤ 55 dB	Outdoors in residential areas and farms and other outdoor areas where people spend widely varying amounts of time and other places in which quiet is a basis for use.
	Leq(24) ≤ 55 dB	Outdoor areas where people spend limited amounts of time, such as school yards, playgrounds, etc.
Indoor activity interference and annoyance	Leq ≤ 45 dB	Indoor residential areas.
	Leq(24) ≤ 45 dB	Other indoor areas with human activities such as schools, etc.

Source: U.S. Environmental Protection Agency, “Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety.” March 1974.

The noise effects associated with an outdoor Ldn of 55 dB are summarized in Table IV.F-3. At 55 dB Ldn, 95 percent sentence clarity (intelligibility) may be expected at 3.5 meters, and no community reaction. However, 1 percent of the population may complain about noise at this level and 17 percent may indicate annoyance.

For the purposes of this EIR, the EPA findings provide a more complete understanding of the issue of noise as well as a context in which to evaluate the proposed Uptown Project.

**(2) State of California.** The State of California has established regulations that help prevent adverse impacts to occupants of buildings located near noise sources. Referred to as the “State Noise Insulation Standard,” it requires buildings to meet performance standards through design and/or building materials that would offset any noise source in the vicinity of the receptor. State regulations include requirements for the construction of new hotels, motels, apartment houses, and dwellings other than detached single-family dwellings that are intended to limit the extent of noise transmitted into habitable spaces. These requirements are found in the California Code of Regulations, Title 24 (known as the Building Standards Administrative Code), Part 2 (known as the California Building Code), Appendix Chapters 12 and 12A. For limiting noise transmitted between adjacent dwelling units, the noise insulation standards specify the extent to which walls, doors, and floor ceiling assemblies must block or absorb sound. For limiting noise from exterior noise sources, the noise insulation standards set an interior standard of 45 dBA DNL in any habitable room with all doors and windows closed. In addition, the standards require preparation of an acoustical analysis demonstrating the manner in which dwelling units have been designed to meet this interior standard, where such units are proposed in an area with exterior noise levels greater than 60 dBA DNL.

The State has also established land use compatibility guidelines for determining acceptable noise levels for specified land uses, as shown in Table IV.F-4 below.<sup>1</sup> This bar chart also recommends steps to be taken if one of the specified land uses (e.g., a school or church) is proposed for an area exposed to a high noise level (e.g., >85 dB): “Clearly unacceptable. New construction or development should generally not be undertaken.”

**(3) City of Oakland.** The City of Oakland addresses noise in its Noise Element of its General Plan and in a Noise Ordinance.

**Table IV.F-3: Summary of Human Effects in Areas Exposed to 55 dB CNEL**





Type of Effects	Magnitude of Effect
Speech – Indoors	100 percent sentence intelligibility (average) with a 5 dB margin of safety.
Speech – Outdoors	100 percent sentence intelligibility (average) at 0.35 meters. 99 percent sentence intelligibility (average) at 1.0 meters. 95 percent sentence intelligibility (average) at 3.5 meters.
Average Community Reaction	None evident; 7 dB below level of significant complaints and threats of legal action and at least 16 dB below “vigorous action.”
Complaints	1 percent dependent on attitude and other non-level related factors.
Annoyance	17 percent dependent on attitude and other non-level related factors.
Attitude Towards Area	Noise essentially the least important of various factors.

Source: U.S. Environmental Protection Agency, “Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety.” March 1974.

<sup>1</sup> State of California, Governor’s Office of Planning and Research, *General Plan Guidelines, 1998* (Appendix A, Figure 2).

**Table IV.F-4: Land Use Compatibility Standards for Community Noise Environments**

Land Use Category	Community Noise Exposure in Decibels (CNEL) Day/Night Average Noise Level in Decibels (Ldn)					
	55	60	65	70	75	80
Residential Low Density Single-Family, Duplex, Mobile Homes	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential – Multi-Family	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Transient Lodging – Motels, Hotels	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Schools, Libraries, Churches, Hospitals, Nursing Homes	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Auditoriums, Concert Halls, Amphitheaters	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Sports Arena, Outdoor Spectator Sports	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Playgrounds, Neighborhood Parks	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Golf Courses, Riding Stables, Water Recreation, Cemeteries	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Office Buildings, Business Commercial and Professional	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Industrial, Manufacturing, Utilities, Agriculture	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable

-  **NORMALLY ACCEPTABLE**  
 Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
-  **NORMALLY UNACCEPTABLE**  
 New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
-  **CONDITIONALLY ACCEPTABLE**  
 New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.
-  **CLEARLY UNACCEPTABLE**  
 New construction or development clearly should not be undertaken.

Source: Modified from State of California General Plan Guidelines, June 1987.

The City of Oakland Noise Ordinance addresses operational noise by establishing the noise standards set forth in Table IV.F-5.<sup>2</sup> For each of these three general land use categories, new development must not expose users to more than the noted levels for more than the noted time periods.

The Noise Ordinance also addresses construction noise by establishing the maximum allowable noise levels shown in Table IV.F-6, except if an acoustical analysis is performed and all feasible mitigation measures are imposed (including the standard City of Oakland noise measures adopted by the Oakland City Council on January 16, 2001).<sup>3</sup>

The Noise Ordinance also addresses the potential nuisance of persistent construction-related noise<sup>4</sup> and vibrations.<sup>5</sup>

**c. Existing Noise Sources.** Noise levels in Oakland and their effect on the City's quality of life will revolve around at least five key sources as described below.

**(1) Construction Activity.** Short-term noise impacts are associated with demolition, excavation, grading, and building construction. Construction-period noise levels are higher than existing noise levels, but eventually cease once construction is complete.

Construction is performed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. The character of the noise generated on each construction site and, therefore, the noise levels surrounding the site, changes as construction progresses through its sequential phases. Despite the variety in the type and size of

**Table IV.F-5: City of Oakland Operational Noise Standards at Receiving Property Line, dBA<sup>a</sup>**

Receiving Land Use	Cumulative No. of Minutes in a 1-Hr Period <sup>b</sup>	Maximum Allowable Noise Level (dBA)	
		Daytime 7 a.m.-10 p.m.	Nighttime 10 p.m.-7 a.m.
Residential and Civic <sup>c</sup>	20 (L <sub>33</sub> )	60	45
	10 (L <sub>16.7</sub> )	65	50
	5 (L <sub>8.3</sub> )	70	55
	1 (L <sub>1.7</sub> )	75	60
	0 (L <sub>max</sub> )	80	65
		Anytime (Daytime or Nighttime)	
Commercial	20 (L <sub>33</sub> )	65	
	10 (L <sub>16.7</sub> )	70	
	5 (L <sub>8.3</sub> )	75	
	1 (L <sub>1.7</sub> )	80	
	0 (L <sub>max</sub> )	85	
Manufacturing, Mining, and Quarrying	20 (L <sub>33</sub> )	70	
	10 (L <sub>16.7</sub> )	75	
	5 (L <sub>8.3</sub> )	80	
	1 (L <sub>1.7</sub> )	85	
	0 (L <sub>max</sub> )	90	

<sup>a</sup> These standards are reduced 5 dBA for simple tone noise, noise consisting primarily of speech or music, or recurring impact noise. If the ambient noise level exceeds these standards, the standard shall be adjusted to equal the ambient noise level.

<sup>b</sup> L<sub>x</sub> represents the noise level that is exceeded X percent of a given period. L<sub>max</sub> is the maximum instantaneous noise level.

<sup>c</sup> Legal residences, schools and childcare facilities, health care or nursing homes, public open spaces, or similarly sensitive land uses.

Source: City of Oakland, 1996b.

**Table IV.F-6: City of Oakland Construction Noise Standards at Receiving Property Line, dBA<sup>a</sup>**

Receiving Land Use	Maximum Allowable Noise Level (dBA)	
	Weekdays 7 a.m.-7 p.m.	Weekends 9 a.m.-8 p.m.
<b>Less Than 10 days</b>		
Residential	80	65
Commercial, Industrial	85	70
<b>More Than 10 Days</b>		
Residential	65	55
Commercial, Industrial	70	60

<sup>a</sup> If the ambient noise level exceeds these standards, the standard shall be adjusted to equal the ambient noise level.

<sup>b</sup> During the hours of 7 p.m. to 7 a.m. on weekdays and 8 p.m. to 9 a.m. on weekends and federal holidays, noise levels received by any land use from construction or demolition shall not exceed the applicable nighttime operational noise level standard.

Source: City of Oakland, 1996b.

<sup>2</sup> Oakland Planning Code Section 17.120.050.

<sup>3</sup> Ibid.

<sup>4</sup> Oakland Planning Code Section 8.18.020.

<sup>5</sup> Oakland Planning Code Section 17.120.060.

construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Table IV.F-7 lists typical construction equipment noise levels recommended for noise impact assessments, based on a distance of 50 feet between the equipment and a noise receptor.

Typical noise levels range up to 91 dBA  $L_{max}$  at 50 feet during the noisiest construction phases. The site preparation phase, which includes excavation and grading of the site, tends to generate the highest noise levels because the noisiest construction equipment is earth-moving equipment. Earth moving equipment includes excavating machinery such as backhoes, bulldozers, draglines and front loaders, and earth moving and compacting equipment, which includes compactors, scrapers and graders. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 to 4 minutes at lower power settings.

The City of Oakland requires that all construction vehicles or equipment, fixed or mobile, be equipped with properly operating and maintained mufflers. All operations must comply with the noise ordinance standards, and stockpiling and/or vehicle staging areas must be located as far as practicable from any nearby dwellings.

**(2) Stationary Sources.** A wide variety of stationary sources also contribute to noise throughout the City. These sources include machinery or equipment that emit noise during operation (e.g., air conditioners, generators, restaurant loudspeakers). Noise associated with certain land uses (e.g., industrial and commercial) could be considered stationary sources if the point for noise generation was stationary and not mobile (e.g., a forklift operated in a certain area of a building or outdoor facility).

**(3) Vehicular Traffic.** The amount of motor vehicle noise varies according to many factors, such as traffic volumes, vehicle mix (percentage of cars and trucks), average traffic speed, and distance from the observer. Major contributing roadway noise sources in the Project area include Interstate 980 (I-980), Telegraph Avenue, San Pablo Avenue, 14<sup>th</sup> Street, Thomas L. Berkley Way (20<sup>th</sup> Street), and other roadways.

The Federal Highway Administration (FHWA) highway traffic noise prediction model (FHWA RD-77-108) was used to evaluate traffic-related noise conditions along roadway links within the Project study area. A typical vehicle mix for urban/suburban areas in California was used in this modeling effort.

**(4) Rail Operations.** Rail operations are a source for noise within cities with existing rail networks. The City of Oakland contains a functioning rail line that produces noise and groundborne vibration. Activity on the Amtrak rail lines represents a significant source of noise and groundborne vibration in the City. Factors that influence the overall impact of railroad noise on adjacent uses include the distance of the uses from the tracks, surrounding land topography, the intermittent nature of train events, and the absence or presence of sound walls or other barriers between the tracks and adjacent uses. The Project site is not directly adjacent to any railroad tracks and would not be significantly affected by rail operations.

**Table IV.F-7: Typical Construction Equipment Noise Levels**

Type of Equipment	Range of Maximum Sound Levels Measured (dBA at 15 m [50 feet])	Suggested Maximum Sound Levels for Analysis (dBA at 15 m [50 feet])
Pile Drivers, 12,000 to 18,000 ft-lb/blow	81 to 96	93
Rock Drills	83 to 99	96
Jackhammers	75 to 85	82
Pneumatic Tools	78 to 88	85
Pumps	68 to 80	77
Dozers	85 to 90	88
Tractors	77 to 82	80
Front-End Loaders	86 to 90	88
Hydraulic Backhoe	81 to 90	86
Hydraulic Excavators	81 to 90	86
Graders	79 to 89	86
Air Compressors	76 to 86	86
Trucks	81 to 87	86

Source: Noise Control for Buildings and Manufacturing Plants, Bolt, Beranek & Newman, 1987.

**(5) Aircraft Operations.** Aircraft overflights also contribute to the ambient noise levels in Oakland. The Metropolitan Oakland International Airport (MOIA) provides a variety of services to commercial aircraft and is planning for expansion through the implementation of its Airport Development Program (ADP). Increased airport operations, changes in the mix of aircraft, and changes in the distribution of different classes of aircraft operations among the runways of MOIA would all be expected to increase aircraft-related noise.

**2. Impacts and Mitigation Measures**

This section evaluates potential noise impacts associated with the Specific Plan and identifies mitigation measures to address these impacts, as appropriate.

**a. Significance Criteria.** The Project would have a significant impact on the environment if it would:

- Expose persons to or generate noise levels in excess of standards established in the Oakland general plan or applicable standards of other agencies (e.g., OSHA);
- Violate the City of Oakland Noise Ordinance (Oakland Planning Code Section 17.120.050) regarding operational noise;
- Violate the City of Oakland Noise Ordinance (Oakland Planning Code Section 17.120.050) regarding construction noise, except if an acoustical analysis is performed and all feasible mitigation measures imposed, including the standard City of Oakland noise measures adopted by the Oakland City Council on January 16, 2001:



- During the hours of 7 p.m. to 7 a.m. on weekdays and 8 p.m. to 9 a.m. on weekends and federal holidays, noise levels received by any land use from construction or demolition shall not exceed the applicable nighttime operational noise level standard (see previous table);
- Violate the City of Oakland Noise Ordinance (Oakland Planning Code Section 8.18.020) regarding nuisance of persistent construction-related noise;
  - Create a vibration which is perceptible without instruments by the average person at or beyond any lot line containing vibration-causing activities not associated with motor vehicles, trains, and temporary construction or demolition work, except activities located within the (a) M-40 zone or (b) M-30 zone more than 400 feet from any legally occupied residential property (Oakland Planning Code Section 17.120.060);
  - Generate interior  $L_{dn}$  or CNEL greater than 45 dBA for multi-family dwellings, hotels, motels, dormitories and long-term care facilities (may be extended by local legislative action to include single family dwellings) per California Noise Insulation Standards (CCR Part 2, Title 24);
  - Result in a 5 dBA permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project;
  - Conflict with State Land Use Compatibility Guidelines (Office of Planning and Research, 1998) for all specified land uses for determination of acceptability of noise Source: State of California, Governor's Office of Planning and Research, *General Plan Guidelines, 1998* (Appendix A, Figure 2);
  - Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and would expose people residing or working in the Project area to excessive noise levels; or
  - Be located within the vicinity of a private airstrip, and would expose people residing or working in the Project area to excessive noise levels.

**b. Less-than-Significant Noise Impacts.** Three noise sources would produce less-than-significant effects on residents and employees at the Project site.

**(1) Train Noise.** The proposed Project is located approximately one half mile north of the Union Pacific railroad tracks. In addition, the railroad tracks are located on the opposite side of I-880 from the Project. Therefore, while train noise might be noticeable from locations on the Project site, the levels would not be significant.

**(2) Aircraft Noise.** The proposed Project is located approximately six miles northwest of the Oakland International Airport. Due to the Project's distance from the airport, no significant noise impacts in terms of 24-hour averaged noise level, such as CNEL or  $L_{dn}$ , would occur at the Project site. Also, the Project site is not located within the vicinity of a private airstrip.

**(3) Vibration Impact.** The proposed Project does not include any sources that would generate long-term vibrations that would be perceptible to humans at nearby sensitive receptors. (Impact NOISE-1 below addresses short-term construction period pile driving and the resulting impact.)

c. **Significant Noise Impacts.** Noise impacts related to three sources would result in significant impacts.

**Impact NOISE-1: Noise levels from construction activities may range up to 91 dBA  $L_{max}$  at the nearest land uses to the Project site for limited time periods during the duration of construction for certain activities such as pile driving or the use of other heavy equipment. (S)**

The transport of workers and construction equipment and materials to the Project site would incrementally increase noise levels on access roads leading to the site. Because workers and construction equipment would use existing routes, noise from passing trucks (87 dBA  $L_{max}$  at 50 feet) would be similar to existing truck-generated noise. For this reason, short-term intermittent noise from trucks would be minor when averaged over a longer time period. In addition, noise associated with on-road vehicles is regulated by federal and state governments and is exempted from local government regulations. Therefore, short-term construction-related impacts associated with worker and equipment transport to the proposed Project site would result in a less-than-significant impact on receptors along the access routes leading to the proposed Project site.

However, noise generated during excavation, grading, and building erection on the Project site would result in potential noise impacts on off-site uses and to on-site uses if they were to occupy the site while later phases of construction were continuing. Existing tenants in the Project vicinity may be subject to short-term noise generated by construction equipment and activities on the Project site when construction occurs near the Project boundary.

Construction is performed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These phases would change the character of the noise generated on the Project site and, therefore, the noise levels surrounding the site as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Table IV.F-7 lists typical construction equipment noise levels recommended for use in noise impact assessments, based on a distance of 50 feet between the equipment and a noise receptor. Typical construction noise levels vary up to a maximum of 91 dBA  $L_{max}$  at 50 feet during the noisiest construction phases. The site preparation phase, which includes excavation and grading of the site, tends to generate the highest noise levels because the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes excavating machinery such as backhoes, bulldozers, draglines, and front loaders and earthmoving and compacting equipment, which includes compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings.

Construction of the proposed Project is expected to require the use of earthmovers such as bulldozers and scrapers, loaders and graders, water trucks, and pickup trucks. As shown in Table IV.F-7, the typical maximum noise level generated by each earthmover on the proposed Project site is assumed to be 88 dBA  $L_{max}$  at 50 feet from the operating earthmover. The maximum noise level generated by water and pickup trucks is approximately 86 dBA  $L_{max}$  at 50 feet from these vehicles. Each doubling of the sound sources with equal strength would increase the noise level by 3 dBA. Assuming each piece of construction equipment operates at some distance apart from the other equipment, the worst-case combined noise level at the nearest residences during this phase of construction would be 91

dBa  $L_{max}$  at a distance of 50 feet from an active construction area. Pile driving may also be required, which could generate noise levels above 90 dBA  $L_{max}$ .

Pile driving may be necessary in the construction of the proposed buildings. Noise associated with pile driving can be a very loud, impulsive sound, resulting from a large hammer that drops on reinforced concrete piles. Individual noise impacts are of short duration (under one second), but the noise is repetitive, occurring about once every two seconds. Pile driving also generates vibration that is perceptible at a distance of 100 feet but would not cause damage to other properties.

Construction of the proposed project will require more than ten days to complete. The City's construction noise thresholds for residential land uses are 65 dBA  $L_{max}$  on weekdays, between the hours of 7:00 a.m. and 7:00 p.m., and 55 dBA  $L_{max}$  on weekends, between the hours of 9:00 a.m. and 8:00 p.m. For commercial and industrial land uses the construction noise thresholds are 70 dBA  $L_{max}$  on weekdays and 60 dBA  $L_{max}$  on weekends. These thresholds are shown in Table IV.F-6. The closest land uses to the project area are located at a distance of approximately 50 feet from the project boundary. Therefore, the nearest land uses will be exposed to noise levels of up to 91 dBA  $L_{max}$ . This noise level will exceed the City's weekday and weekend noise thresholds for residential, commercial, and industrial land uses even with the implementation of the mitigation measures detailed below. However, due to the short-term nature of this construction-related impact, the City of Oakland considers it a less-than-significant impact if all feasible mitigation measures are imposed as detailed in the above significance criteria.

The following measures shall be implemented during construction of the proposed Project:

### **Standard Construction Requirements**

Mitigation Measure NOISE-1a: Standard construction activities shall be limited to between 7:00 a.m. and 7:00 p.m. Monday through Friday. No construction activities shall be allowed on weekends until after the buildings are enclosed without prior authorization of the Building Services and Planning Divisions of the Community and Economic Development Agency.

Mitigation Measure NOISE-1b: To reduce daytime noise impacts due to construction, to the maximum feasible extent, the City shall require the applicant to develop a site-specific noise reduction program, subject to city review and approval, which includes the following measures:

- Signs shall be posted at the construction site that include permitted construction days and hours, a day and evening contact number for the job site, and a day and evening contact number for the City in the event of problems;
- An on-site complaint and enforcement manager shall be posted to respond to and track complaints;
- A pre-construction meeting shall be held with the job inspectors and the general contractor/on-site Project manager to confirm that noise mitigation and practices are completed prior to the issuance of a building permit (including construction hours, neighborhood notification, posted signs, etc.);
- Equipment and trucks used for Project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers,

ducts, engine enclosures, and acoustically attenuating shields or shrouds, wherever feasible);

- Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for Project construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed-air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed-air exhaust shall be used; this muffler can lower noise levels where feasible, which could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever feasible; and
- Stationary noise sources shall be located as far from sensitive receptors as possible, and they shall be muffled and enclosed within temporary sheds, or insulation barriers or other measures shall be incorporated to the extent feasible.

**Pile-Driving Requirements and Conditions** (to be implemented if pile driving required).

Mitigation Measure NOISE-1c: If pile-driving occurs as part of the Project, it shall be limited to between 8:00 a.m. and 4:00 p.m., Monday through Friday, with no pile driving permitted between 12:30 and 1:30 p.m. No pile driving shall be allowed on Saturdays, Sundays, or holidays.

Mitigation Measure NOISE-1d: To further mitigate potential pile-driving and/or other extreme noise-generating construction impacts, a set of site-specific noise attenuation measures shall be completed under the supervision of a qualified acoustical consultant. This plan shall be submitted for review and approval by the City to ensure that maximum feasible noise attenuation is achieved. These attenuation measures shall include as many of the following control strategies as feasible and shall be implemented prior to any required pile-driving activities:

- Implement “quiet” pile-driving technology, where feasible, in consideration of geotechnical and structural requirements and conditions;
- Erect temporary plywood noise barriers around the entire construction site;
- Utilize noise control blankets on the building structure as it is erected to reduce noise emission from the site;
- Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings; and
- Monitor the effectiveness of noise attenuation measures by taking noise measurements.
- A third-party peer review, paid for by the applicant, shall be required to assist the City in evaluating the feasibility and effectiveness of the noise reduction plan submitted by the applicant.
- A special inspection deposit is required to ensure compliance with the noise reduction plan. The amount of deposit shall be determined by the Building Official and the deposit shall be submitted by the project sponsor concurrent with submittal of the noise reduction plan.

**Mitigation Measure NOISE-1e:** A process with the following components shall be established for responding to and tracking complaints pertaining to pile-driving construction noise:

- A procedure for notifying City Building Division staff and Oakland Police Department;
- A list of telephone numbers (during regular construction hours and off-hours);
- A plan for posting signs on-site pertaining to complaint procedures and who to notify in the event of a problem;
- Designation of a construction complaint manager for the Project; and
- Notification of neighbors within 300 feet of the Project construction area at least 30 days in advance of pile-driving activities.

Construction period impacts would still occur with implementation of the measures detailed above. However, because they would be short-term in duration, the City considers this a less-than-significant impact. (LTS)

**Impact NOISE-2: Local traffic will generate long-term noise levels exceeding *Normally Acceptable* and *Conditionally Acceptable* noise levels on the Project site. (S)**

The FHWA highway traffic noise prediction model (FHWA RD-77-108) was used to evaluate traffic-related noise conditions in the vicinity of the Project site. The traffic volumes were taken from the traffic report prepared for the Project by Korve Engineering. The resultant noise levels were weighted and summed over a 24-hour period in order to determine the CNEL values. CNEL contours are derived through a series of computerized iterations to isolate the 60, 65, and 70 dBA CNEL contour for traffic noise levels in the Project area. The future traffic noise levels that would occur with and without the Project are shown in Tables IV.F-8 and IV.F-9.

Table IV.F-9 shows that implementation of the proposed Project would result in relatively minor changes in traffic noise levels. The largest increase in traffic related noise would occur on William Street, which would experience a 1.6 dBA increase over the no-build scenario. Since the Project would not result in a significant increase in traffic noise, no mitigation is required for off-site areas.

Table IV.F-9 shows that portions of the project site would be exposed to noise levels between 65 dBA CNEL and 75 dBA CNEL. Such noise levels would conflict with the State's Land Use Compatibility Guidelines, which define noise levels below 65dBA CNEL as *Normally Acceptable* and between a 60 dBA CNEL and 70 dBA CNEL as *Conditionally Acceptable* for multi-family residential uses (see Table IV.F-4). The traffic noise levels predicted adjacent to streets within the Project site are as follows:

- *San Pablo Avenue.* The distance of the Project site property line to the centerline of San Pablo Avenue is approximately 50 feet. The 70 CNEL is estimated to be less than 50 feet<sup>6</sup> from the centerline and the 65 CNEL from between 72 feet and 109 feet from the centerline. As a result, noise levels within portions of the Project site adjacent to San Pablo Avenue will be as high as 70 dBA, which falls within the *Conditionally Acceptable* range for multi-family residential uses and the *Normally Acceptable* range for commercial uses.

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<sup>6</sup> The traffic noise prediction model cannot predict distances less than 50 feet.

- *Telegraph Avenue.* The distance of the Project site property line to the centerline of Telegraph Avenue ranges from approximately 45 to 50 feet. The 70 CNEL is estimated to encroach into the Project site a maximum of 17 feet. The 65 CNEL is estimated to encroach between 87 and 41 feet (depending on exact location) into the Project site. As a result, noise levels within portions of the Project site adjacent to Telegraph Avenue will be as high as 72 dBA, which falls within the *Normally Unacceptable* range for multi-family residential and the *Conditionally Acceptable* range for commercial uses.
- *21<sup>st</sup> Street.* Traffic volumes were not modeled for 21<sup>st</sup> Street, but the volumes are estimated to result in an ADT of less than 5,000. Based on this estimation and comparison with other similar streets, the noise levels within portions of the Project site adjacent to 21<sup>st</sup> Street are estimated to be as high as between 60 and 65 dBA, which fall within the *Normally Acceptable* range for multi-family residential and commercial uses.
- *Thomas L. Berkley Way (20<sup>th</sup> Street).* The distance of the Project site property line to the centerline of Thomas L. Berkley Way (20<sup>th</sup> Street) is approximately 40 feet. The 70 CNEL is estimated to be less than 50 feet from the street centerline and the 65 CNEL is estimated to be 63 feet from the centerline. As a result, noise levels within portions of the Project site adjacent to Thomas L. Berkley Way (20<sup>th</sup> Street) will be as high as 68 dBA, which falls within the *Conditionally Acceptable* range for multi-family residential uses and the *Normally Acceptable* range for commercial and neighborhood park uses.
- *William Street.* The distance of the Project site property line to the centerline of William Street is approximately 25 feet. The 65 CNEL is estimated to be less than 50 feet from the street centerline and the 60 CNEL is estimated to be 69 feet from the centerline. As a result, noise levels within portions of the Project site adjacent to William Street will be as high as 68 dBA, which falls within the *Conditionally Acceptable* range for multi-family residential uses and the *Normally Acceptable* range for commercial and neighborhood park uses.
- *19<sup>th</sup> Street.* The distance of the Project site property line to the centerline of 19<sup>th</sup> Street is approximately 30 feet. The 70 CNEL is estimated to be less than 50 feet from the street centerline and the 65 CNEL is estimated to be 56 feet from the centerline. As a result, noise levels within portions of the Project site adjacent to 19<sup>th</sup> Street will be as high as 69 dBA, which falls within the *Conditionally Acceptable* range for multi-family residential uses and the *Normally Acceptable* range for commercial uses.
- *18<sup>th</sup> Street.* Noise levels on portions of the site adjacent to 18<sup>th</sup> Street are not expected to exceed 65 dBA, which falls within the *Normally Conditional* range for multi-family residential and commercial uses.

Standard residential construction in northern California would provide 25 dBA exterior-to-interior noise reduction with windows closed and ensure that interior noise levels within most of the buildings would be reduced to 45 dBA. However, buildings that front onto Telegraph Avenue could be exposed to noise levels as high as 72 dBA. Building façade upgrades will be necessary for these buildings to meet the 45 dBA interior noise standard. Additionally, to ensure that windows can remain closed for prolonged periods of time, an air-conditioning system will be required in all buildings.

The State's Land Use Compatibility Guidelines are used as the bases for determining acceptable noise levels for exterior uses. Noise levels below 65 dBA are considered *Normally Acceptable* for multi-

family residential uses and levels below 70 dBA are considered *Normally Acceptable* for commercial and playgrounds or neighborhood parks. Outdoor use areas that may be developed as part of the Uptown Project include patios, balconies and common use areas (e.g., BBQ area, playground, recreation area) associated with the residential units, the neighborhood park, and outdoor eating areas. Outdoor residential use areas that may be included in the final Project design adjacent to any of the street frontages other than 21<sup>st</sup> or 18<sup>th</sup> Streets could be exposed to traffic noise levels that exceed 65 dBA and the *Normally Acceptable* range for residential exterior uses. Sound barriers such as walls or berms at an effective height of 6 feet or plexiglass at a height of 5 feet (i.e., to shield balconies and or outdoor patio areas) would provide 5dBA or more in noise reduction for outdoor use areas.

Implementation of the following mitigation measure would ensure that conditionally acceptable noise levels are achieved:

Mitigation Measure NOISE-2: Once the project design is finalized and the location of specific uses are determined, the project applicant shall have an acoustical analysis prepared that details noise reduction requirements and noise insulation features necessary to achieve acceptable interior and exterior noise levels. The requirements shall be sufficient to achieve a minimum of 45 dBA for all interior building spaces and shall achieve either Normally Acceptable or Conditionally Acceptable ranges for exterior uses according to the applicable land use category as set forth in Table IV.F-4.

Measures to reduce the interior noise levels may include:

- To meet the City's 45 dBA CNEL interior noise standard, building facade upgrades will be required for building located along Telegraph Avenue. All windows facing Telegraph Avenue must have a sound transmission class (STC) of 31 or greater.
- All of the proposed buildings on the project site shall be designed and constructed with ventilation systems, to achieve the indoor fresh-air ventilation requirements specified in Chapter 35 of the Uniform Building Code, to achieve the 45 dBA CNEL interior noise standard.

Measures to reduce the exterior noise levels may include:

- The inclusion of plexiglass enclosures for outdoor patio and balcony areas at a height of 5 feet (i.e., to shield balconies and or outdoor patio areas) would provide 5dBA or more in noise reduction for outdoor use areas.

Implementation of the above mitigation measure would reduce this impact to a less-than-significant level by achieving, at a minimum, *Conditionally Acceptable* noise levels. (LTS)

**Table IV.F-8: 2025 Baseline Traffic Noise Levels**

Roadway Segment	ADT	Centerline to 70 CNEL (Feet)	Centerline to 65 CNEL (Feet)	Centerline to 60 CNEL (Feet)	CNEL (dBA) 50 Feet from Outermost Lane
<b>Martin Luther King Jr. Way</b>					
North of 18 <sup>th</sup> Street	5,460	< 50 <sup>a</sup>	< 50	109	62.8
Between 18 <sup>th</sup> Street and 17 <sup>th</sup> Street	5,395	< 50	< 50	109	62.7
<b>San Pablo Avenue</b>					
Grand Avenue and TLB Way (20 <sup>th</sup> Street) <sup>b</sup>	14,960	< 50	100	210	67.1
Between TLB Way (20 <sup>th</sup> Street) and William Street	7,835	< 50	68	138	64.3
Between William Street and 19 <sup>th</sup> Street	9,150	< 50	74	153	65.0
Between 19 <sup>th</sup> Street and 18 <sup>th</sup> Street	7,230	< 50	64	131	64.0
Between 18 <sup>th</sup> Street and 17 <sup>th</sup> Street	7,555	< 50	66	135	64.2
<b>Telegraph Avenue</b>					
Between Grand Ave and TLB Way (20 <sup>th</sup> Street)	21,125	62	125	264	68.6
Between TLB Way (20 <sup>th</sup> Street) and William Street	18,205	57	113	239	68.0
Between William Street and 19 <sup>th</sup> Street	15,570	< 50	102	214	67.3
Between 19 <sup>th</sup> Street and 18 <sup>th</sup> Street	10,910	< 50	82	171	65.8
Between 18 <sup>th</sup> Street and 17 <sup>th</sup> Street	11,445	< 50	85	177	66.0
<b>Broadway</b>					
South of Grand Ave	21,490	62	126	267	68.7
North of TLB Way (20 <sup>th</sup> Street)	13,220	< 50	93	194	66.6
Between TLB Way (20 <sup>th</sup> Street) and 19 <sup>th</sup> Street	14,310	< 50	97	204	66.9
Between 19 <sup>th</sup> Street and 17 <sup>th</sup> Street	14,315	< 50	97	204	66.9
<b>Grand Avenue</b>					
Between San Pablo Ave and Northgate Ave	24,715	67	138	293	69.3
Between Northgate Ave and Telegraph Ave	24,340	67	136	290	69.2
Between Telegraph Ave and Broadway	21,650	62	126	269	68.7
<b>Thomas L. Berkly Way (20<sup>th</sup> Street)</b>					
Between San Pablo Ave and Telegraph Ave	5,015	< 50	< 50	104	62.4
Between Telegraph Ave and Broadway	6,725	< 50	62	125	63.7
<b>William Street</b>					
Between San Pablo Ave and Telegraph Ave	3,575	< 50	< 50	54	59.7
<b>19<sup>th</sup> Street</b>					
Between San Pablo Ave and Telegraph Ave	10,925	< 50	53	113	64.6
Between Telegraph Ave and Broadway	14,230	< 50	63	134	65.7
<b>18<sup>th</sup> Street</b>					
Between Martin Luther King Jr. Way and San Pablo Ave	6,220	< 50	< 50	77	62.1



Table IV.F-8 *continued*

Roadway Segment	ADT	Centerline to 70 CNEL (Feet)	Centerline to 65 CNEL (Feet)	Centerline to 60 CNEL (Feet)	CNEL (dBA) 50 Feet from Outermost Lane
Between San Pablo Ave and Telegraph Ave	1,955	< 50	< 50	< 50	57.1
17 <sup>th</sup> Street					
Between Martin Luther King Jr. Way and Jefferson Street	6,370	< 50	< 50	79	61.7
Between Jefferson Street and San Pablo Ave	8,555	< 50	< 50	96	62.9
Between San Pablo Ave and Telegraph Ave	10,645	< 50	53	111	63.9
Between Telegraph Ave and Broadway	9,560	< 50	< 50	104	63.4

<sup>a</sup> Traffic noise within 50 feet of roadway centerline requires site specific analysis.

<sup>b</sup> TLB Way = Thomas L. Berkley Way.

Source: LSA Associates, Inc., August 2003.

**Impact NOISE-3: Long-term stationary noise sources on the Project site could potentially generate noise levels in excess of the thresholds set in Section 17.120.050 of the City’s Planning Code. (S)**

As noise spreads from a source, it loses energy so that the farther away the noise receiver is from the noise source, the lower the perceived noise level would be. Geometric spreading causes the sound level to attenuate, resulting in a six-decibel reduction in the noise level for each doubling of distance from a single point source of noise to the noise receptor.

Mechanical equipment and other on-site sources (e.g., air-conditioning or other mechanical ventilation equipment, delivery loading docks or areas, emergency generators, etc.) from the proposed retail and residential uses could generate noise that would exceed the City’s noise standards.

To prevent noise impacts on adjacent land uses, loading docks or loading areas and noise-generating equipment associated with the proposed uses should be located as far as practical from all existing and planned residential properties.

Mitigation Measure NOISE-3: The following measures are required for the operations of the proposed Project:

- All on-site stationary noise sources shall comply with the standards listed in Section 17.120.050 of the City’s Planning Code; and
- Loading docks or loading areas and noise-generating equipment associated with the retail uses will be located as far as practical from all existing and planned residential properties.

Implementation of the above mitigation measure would reduce the impact to below a level of significance. (LTS)

**Table IV.F-9: 2025 Plus Project Traffic Noise Levels**

Roadway Segment	ADT	Center-line to 70 CNEL (Feet)	Center-line to 65 CNEL (Feet)	Center-line to 60 CNEL (Feet)	CNEL (dBA) 50 Feet From Outermost Lane	Change From No Project Level (dBA)
<b>Martin Luther King Jr. Way</b>						
North of 18 <sup>th</sup> Street	5,460	< 50 <sup>a</sup>	< 50	109	62.8	0.0
Between 18 <sup>th</sup> Street and 17 <sup>th</sup> Street	5,265	< 50	< 50	107	62.6	-0.1
<b>San Pablo Avenue</b>						
Grand Avenue and TLB Way (20 <sup>th</sup> Street) <sup>b</sup>	17,620	< 50	109	231	67.7	0.6
Between TLB Way (20 <sup>th</sup> Street) and William Street	9,655	< 50	76	158	65.2	0.9
Between William Street and 19 <sup>th</sup> Street	10,410	< 50	80	166	65.6	0.6
Between 19 <sup>th</sup> Street and 18 <sup>th</sup> Street	8,700	< 50	72	148	64.8	0.8
Between 18 <sup>th</sup> Street and 17 <sup>th</sup> Street	8,740	< 50	72	148	64.8	0.6
<b>Telegraph Avenue</b>						
Between Grand Ave and TLB Way (20 <sup>th</sup> Street)	24,370	67	137	290	69.3	0.7
Between TLB Way (20 <sup>th</sup> Street) and William Street	21,040	61	124	263	68.6	0.6
Between William Street and 19 <sup>th</sup> Street	17,570	56	111	234	67.8	0.5
Between 19 <sup>th</sup> Street and 18 <sup>th</sup> Street	12,205	< 50	88	184	66.3	0.5
Between 18 <sup>th</sup> Street and 17 <sup>th</sup> Street	12,815	< 50	91	190	66.5	0.5
<b>Broadway</b>						
South of Grand Ave	21,750	63	127	269	68.8	0.1
North of TLB Way (20 <sup>th</sup> Street)	13,470	< 50	94	196	66.7	0.1
Between TLB Way (20 <sup>th</sup> Street) and 19 <sup>th</sup> Street	14,775	< 50	99	209	67.1	0.2
Between 19 <sup>th</sup> Street and 17 <sup>th</sup> Street	14,315	< 50	97	204	66.9	0.0
<b>Grand Avenue</b>						
Between San Pablo Ave and Northgate Ave	25,440	69	140	299	69.4	0.1
Between Northgate Ave and Telegraph Ave	20,950	61	124	263	68.6	-0.6
Between Telegraph Ave and Broadway	23,540	66	133	284	69.1	0.4
<b>Thomas L. Berkly Way (20<sup>th</sup> Street)</b>						
Between San Pablo Ave and Telegraph Ave	6,960	< 50	63	128	63.8	1.4
Between Telegraph Ave and Broadway	7,420	< 50	65	133	64.1	0.4
<b>William Street</b>						
Between San Pablo Ave and Telegraph Ave	5,185	< 50	< 50	69	61.3	1.6
<b>19<sup>th</sup> Street</b>						
Between San Pablo Ave and Telegraph Ave	11,875	< 50	56	119	64.9	0.3
Between Telegraph Ave and Broadway	14,945	< 50	65	139	65.9	0.2

Table IV.F-9 *continued*

Roadway Segment	ADT	Center-line to 70 CNEL (Feet)	Center-line to 65 CNEL (Feet)	Center-line to 60 CNEL (Feet)	CNEL (dBA) 50 Feet From Outermost Lane	Change From No Project Level (dBA)
<b>18th Street</b>						
Between Martin Luther King Jr. Way and San Pablo Ave	6,535	< 50	< 50	80	62.4	0.3
Between San Pablo Ave and Telegraph Ave	2,510	< 50	< 50	< 50	58.2	1.1
<b>17th Street</b>						
Between Martin Luther King Jr. Way and Jefferson Street	7,540	< 50	< 50	89	62.4	0.7
Between Jefferson Street and San Pablo Ave	9,840	< 50	< 50	105	63.5	0.6
Between San Pablo Ave and Telegraph Ave	11,040	< 50	54	114	64.0	0.1
Between Telegraph Ave and Broadway	9,910	< 50	< 50	106	63.6	0.2

<sup>a</sup> Traffic noise within 50 feet of roadway centerline requires site specific analysis.

<sup>b</sup> TLB Way = Thomas L. Berkley Way.

Source: LSA Associates, Inc., August 2003.

## G. HAZARDS AND HAZARDOUS MATERIALS

This section describes the potential for hazardous materials<sup>1</sup> to affect human health and the environment at the Project site. Several parcels within and adjacent to the vicinity of the Project site have been identified as locations where hazardous materials have been used, stored, and/or released. The potential for current and future workers and residents to be exposed to hazardous materials in soils, groundwater, and building materials is described below. Mitigation measures for the Project have been drafted, where necessary, to reduce potential impacts due to hazardous materials to a less-than-significant level. Abbreviations and acronyms used in this hazards sections are shown in Table IV.G-1.

### 1. Setting

The following section describes previous environmental investigations of soil and groundwater conditions within the Project site and the regulatory framework that governs hazardous material management and remediation.

**a. Previous Environmental Investigations.** Dozens of environmental investigations have been performed in the Project site vicinity. The investigations include Phase I environmental site assessments (ESAs), Phase II ESAs, and other investigations. Phase I ESAs are conducted to identify potential contamination issues at a property by inspecting the site and reviewing readily available information, including previous environmental investigations, historical land use records, and regulatory agency information. Phase II ESAs include the collection of soil and/or groundwater samples to investigate potential issues identified during the Phase I ESA process. Depending on the findings of the Phase I and Phase II investigations, other environmental investigations may follow to delineate the extent of contamination identified during previous investigations or to evaluate the effectiveness of remedial actions. Focused investigations may also be conducted when a hazardous material release is identified, such as following removal of an underground petroleum storage tank (UST).

Much of the setting information in this section is summarized from a Draft Environmental Investigation prepared in 2001 for the Project applicant by Harding ESE, Inc.<sup>2</sup> Harding ESE summarized previous environmental investigations for the area and conducted and/or updated Phase I ESAs for Project Blocks 1 through 7. A limited Phase II ESA was also performed for that investigation, which included collection of soil and groundwater samples from six locations at and adjacent to Blocks 1 and 2.

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<sup>1</sup> The California Health and Safety Code defines a hazardous material as, "...any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety, or to the environment. Hazardous materials include, but are not limited to, hazardous substances, hazardous waste, radioactive materials, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment." (California Health and Safety Code ' 25501).

<sup>2</sup> Harding ESE, Inc., 2001, *Draft Environmental Investigation Report, Oakland Uptown Development Project*, Oakland, California.

**Table 1: Abbreviations and Acronyms used in Hazards Section**

ACHCS	=	Alameda County Health Care Services
BAAQMD	=	Bay Area Air Quality Management District
Cal EPA	=	California Environmental Protection Agency
DOSH	=	California Department of Occupational Safety and Health
DTSC	=	California Department of Toxic Substances Control
ESA	=	Environmental Site Assessment
HSP	=	Health and Safety Plan
mg/kg	=	milligrams per kilogram, equivalent to one part per million by weight
OSHA	=	Occupational Safety and Health Administration
PAH	=	Polynuclear aromatic hydrocarbons, a class of heavy hydrocarbon compounds often found in materials such as asphalts, fuels, oils, and greases
PCE	=	Tetrachloroethylene, a manufactured chemical that is widely used for dry cleaning of fabrics and for metal-degreasing
PEL	=	Permissible Exposure Limits, OSHA regulatory thresholds for exposure to chemicals in the workplace
RWQCB	=	San Francisco Regional Water Quality Control Board
ULR	=	City of Oakland Urban Land Redevelopment Program
US EPA	=	US Environmental Protection Agency
UST	=	Underground petroleum storage tank
µg/L	=	micrograms per liter, equivalent to one part per billion by volume

Source: Baseline Environmental, 2003.

For this analysis, the information in the Harding ESE investigation was supplemented by review of additional environmental reports to provide information regarding Blocks 8 and 9, and information obtained in investigations completed after the Harding ESE report. Reports relied on for this analysis include:

Subsurface Consultants, Inc., 2001, *Phase I Environmental Site Assessment*, 1961-1975 Telegraph Avenue, Oakland, California, June 7.

Subsurface Consultants Inc. (SCI), 2001, *Phase I Environmental Site Assessment*, 605-609 20th Street, Oakland, California, August 29.

Subsurface Consultants, Inc., 2002, *Phase I Environmental Site Assessment*, Paramount Theater Parking Garage, 2100 and 2150 Telegraph Avenue, Oakland, California, February 27.

Subsurface Consultants, Inc., 2002, Letter Report, *Groundwater Investigation*, Uptown Theatre District, Oakland, California, November 11.

URS, 2002, *2002 Third Quarter Groundwater Monitoring Report*, Former Sears Retail Center #1039, 1901-1911 Telegraph Avenue, Oakland, California, Case ID # STID 1630 for Sears Roebuck & Co, December 12.

Aqua Science Engineers, Inc., 2003, *Report of Soil and Groundwater Assessment*, ASE Job No. 3848, Feldstein Property, 1940 San Pablo Avenue, Oakland, California, February 5.

Subsurface Consultants, Inc., 2003, Letter Report, *Result of Soil Investigation*, 565, 571, and 585 20th Street, Oakland, California, February 28.

A summary of the findings of these investigations is presented in Table IV.G-2.

Most of the hazardous materials concerns identified during the Harding ESE investigation were related to historic land uses that may have used hazardous materials. These land uses included a dry cleaning establishment, several auto repair businesses, vehicle parking lots, a bus depot, a photo finishing business, and other commercial and light industrial land uses. Releases of petroleum hydrocarbons, solvents, and wastes containing heavy metals could have occurred during the periods of time these land uses were present at the Project site. If hazardous materials releases have occurred, construction workers could come into contact with contaminated soils and groundwater during Project construction.

Not all of the potential hazardous material issues at the Project site blocks have been fully investigated. Soil and groundwater analyses have largely focused on Project site Blocks 1 to 6, where initial phases of Project development have been proposed to take place. No Phase II investigations are known to have been conducted at Blocks 7, 8, or 9. Based on historical land uses, there is a chance that petroleum hydrocarbons, pesticides, polynuclear aromatic hydrocarbons (PAHs), heavy metals, and solvents could be encountered in soil and groundwater during redevelopment activities at those blocks. In addition, there are several potential hazardous materials concerns within the other Project site blocks that were identified during Phase I investigations but have not yet been evaluated, due to lack of right-of-entry agreements or other access constraints. Additional investigation will be required to determine if significant hazardous materials releases have occurred at these locations. The impact and mitigation measures subsection of this section provides recommendations for these subsequent investigations.

The Project site has also been affected by releases from underground storage tanks (USTs). USTs from a former gasoline service station were present on Block 4, and have affected groundwater quality on Block 2 and Block 4. Releases from a UST at a bus depot located on Block 7 have also been reported, although remediation at that site has been completed, and residual contamination at that site would not be expected to affect redevelopment. There may be a potential to encounter abandoned USTs during development, such as waste oil tanks from former auto repair facilities, or fuel oil tanks from former commercial and residential land uses.

A regional issue affecting several of the Project site blocks is the presence of chlorinated solvents in groundwater. The primary compound of concern is tetrachloroethylene (PCE). PCE is a manufactured chemical that is widely used for dry cleaning of fabrics and for metal-degreasing. It is also used to make other chemicals and a component of some consumer products. Based on animal experiments, exposure to elevated concentrations of PCE is suspected to cause liver and kidney cancer.<sup>3</sup>

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<sup>3</sup> Agency for Toxic Substances and Disease Registry (ATSDR). 1997. Toxicological profile for tetrachloroethylene. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

**Table IV.G-2: Summary of Previous Environmental Investigation Findings**

<b>Blocks<sup>a</sup></b>	<b>Current and Historic Land Uses Potentially Associated with Hazardous Materials</b>	<b>Summary of Findings</b>
1 and 2	Garment Factory, Dry Cleaners, Gasoline Service Station, Auto Repair, Machine Shop, Battery Retail Sales, Parking	<p>Underground storage tanks associated with a former gasoline station near the boundary of Block 2 and Block 4 were removed in the late 1980s. Total petroleum hydrocarbons, solvents, and benzene are present in groundwater in this area. During the most recent sampling activity (Fall 2002), benzene in groundwater near the former gasoline station was identified at concentrations up to 11,500 <math>\mu\text{g/L}</math>, above the URL Program Tier 1 residential screening level of 110 <math>\mu\text{g/L}</math> for residential land uses, and above the Tier 1 commercial/industrial screening level of 3,700 <math>\mu\text{g/L}</math>.</p> <p>A soil investigation at 565-585 Telegraph Avenue, in the northern portion of Block 1, identified one location with shallow soils containing petroleum hydrocarbons as diesel at 5,800 mg/kg, petroleum hydrocarbons as motor oil at 5,500 mg/kg, and naphthalene at 37 mg/kg. This appeared to be a limited area of contamination, as other soil samples within 25 feet contained much lower concentrations of contaminants.</p> <p>Soil and groundwater samples from the 1940 San Pablo Avenue property located at the northwest corner of Block 2 were collected and did not contain petroleum hydrocarbons, metals, or volatile organic compounds (including solvents) above health-risk based screening levels.</p> <p>Asbestos-containing materials and lead-based paint are known to be present in structures at the blocks.</p>
3 and 4	Gasoline Station, Auto Repair, Hospital, Photo Finishing, Parking	<p>Underground storage tanks associated with the gasoline station on Block 4 were removed in the late 1980s. Total petroleum hydrocarbons and solvents are present in groundwater. Additional areas of petroleum hydrocarbons, solvents, and/or metals may be present in soils from historic land uses. During the most recent sampling activity (Fall 2002), benzene in groundwater near the former gasoline station was identified at concentrations up to 11,500 <math>\mu\text{g/L}</math>, above the URL Program Tier 1 residential screening level of 110 <math>\mu\text{g/L}</math> for residential land uses, and above the Tier 1 commercial/industrial screening level of 3,700 <math>\mu\text{g/L}</math>.</p> <p>Asbestos-containing materials and lead-based paint are known to be present in structures at the blocks.</p>
5 and 6	Machine Shop, Laboratory, Trucking Company, Parking	<p>Buildings within these blocks have been demolished. Relatively low concentrations of petroleum hydrocarbons have been detected in limited soil sampling. Additional areas of soils affected by petroleum hydrocarbons, solvents, and/or metals may be present from historic land uses in areas that were not accessible for sampling in previous investigations.</p>
7	Tire Service, Bus Depot, Power Substation, Plant Nursery, Parking	<p>No soil or groundwater investigations are known to have been performed at this block. Releases from a former underground storage tank have been reported at the site, but the case has been closed by ACHCS, indicating that no further investigation or remediation is necessary.</p> <p>Soils and/or groundwater affected by petroleum hydrocarbons, pesticides, solvents, polynuclear aromatic hydrocarbons, and/or metals could potentially be present from historic land uses.</p> <p>Based on the age of the buildings, asbestos-containing materials and lead-based paint are suspected to be present.</p>

Table IV.G-2 *continued*

Blocks <sup>a</sup>	Current and Historic Land Uses Potentially Associated with Hazardous Materials	Summary of Findings
8	Wood and Coal Yard, Parking	No soil or groundwater sampling is known to have been completed at this block. Historical land uses and potential contamination that may have migrated from adjacent current and former gasoline service stations are hazardous materials issues within this block.
9	Cabinet Factory, Auto Repair, Dyeing and Cleaning Facility, Parking	No soil or groundwater sampling is known to have been completed at this block. Historical land uses and potential contamination that may have migrated from adjacent current and former gasoline service stations are hazardous materials issues within this block.  Based on the age of the buildings, asbestos-containing materials and lead-based paint are suspected to be present.

<sup>a</sup> Blocks 1-7 have been grouped based on the evaluation in the Harding ESE Environmental Investigation Report. Source: Baseline Environmental, 2003. Also refer to list of references on page IV.G-2 and -3.

Shallow groundwater in the Project vicinity is not considered a likely potential drinking water source, but the public could potentially be exposed to PCE from groundwater that has evaporated and migrated through the soil into indoor and outdoor air. The City of Oakland Urban Land Redevelopment (ULR) Program has established health risk-based corrective action levels for PCE and other contaminants that are designed to provide screening criteria for cleanup of contaminated sites. The ULR program has established 200 micro grams per liter ( $\mu\text{g/L}$ ) as a Tier 1 screening level for PCE at residential sites, and 3,300  $\mu\text{g/L}$  at commercial and industrial sites, in locations where groundwater is not a potential drinking water source. The Tier 1 screening levels are designed to be conservative, health-risk based values; sites with contaminant concentrations lower than the Tier 1 screening levels would not be expected to present a health risk to future site users, while sites with concentrations higher than the Tier 1 levels may require additional analysis and/or investigation to determine potential health risks.

Beginning in 1991, the City of Oakland has installed and sampled groundwater monitoring wells in the Project vicinity to delineate the extent of chlorinated solvents in groundwater, and to attempt to determine the source of the contamination. Wells were sampled in 1991, 1994, 1998, 2000, and 2002, and between samplings additional monitoring wells have been installed to provide additional information. Eighteen groundwater monitoring wells have been installed, and during the most recent sampling in 2002, samples were collected from fifteen of those wells.

PCE concentrations have consistently been highest near the western boundary of the Project site blocks, in wells at and near San Pablo Avenue. During the most recent sampling, the highest concentration measured was 710  $\mu\text{g/L}$  at well MW-13, located at the corner of San Pablo Avenue and William Street. Samples from two other wells also contained PCE above the Tier 1 residential screening level of 200  $\mu\text{g/L}$ : MW-11, on 19<sup>th</sup> Street east of San Pablo Avenue, and MW-17, on San



Pablo Avenue near Jefferson Street.<sup>4</sup> These wells are located adjacent to Project site blocks 1, 2, and 5. Additional evaluation may be necessary to determine potential health effects to future residential site users at these parcels as a result of PCE contamination. None of the samples collected from these wells have contained PCE above the commercial/industrial Tier 1 screening level of 3,300  $\mu\text{g/L}$ .

Trace concentrations of cis-1,2-dichloroethene, a breakdown product of PCE, were identified in two of the samples in 2002, suggesting that some natural biodegradation of the PCE may be occurring.<sup>5</sup> No evidence of vinyl chloride, a more toxic natural breakdown product that can be produced under certain conditions, has been identified at the Project area. Although the overall trend of concentrations in groundwater over time has been toward lower concentrations of PCE, two of the wells sampled in 2002 contained higher concentrations of PCE than in 2000.<sup>6</sup> Additional investigation will likely be necessary to pinpoint the source of the PCE in groundwater and evaluate concentration trends and resulting potential environmental impacts.

**b. Regulatory Framework.** A large number of federal, State, and local laws and regulations affect the management of hazardous materials. In California, the US Environmental Protection Agency (US EPA) has granted most enforcement authority over Federal hazardous materials regulations to the California Environmental Protection Agency (Cal EPA). In turn, a local agency, Oakland Fire Services Agency (OFSA), has been granted authority by the State to enforce most regulations pertaining to hazardous materials management in the City of Oakland, such as the Hazardous Materials Business Plan Program and permitting for underground storage tanks.

A slightly different regulatory framework exists for oversight over investigation and remediation of sites affected by hazardous materials releases. Oversight can be performed by State agencies, such as the Department of Toxic Substances Control (DTSC), regional agencies, such as the San Francisco Bay Regional Water Quality Control Board (RWQCB), or local agencies such as Alameda County Health Care Services (ACHCS). Oversight of many contaminated sites in Oakland, such as those associated with leaking underground storage tanks, is performed by the Local Oversight Program of ACHCS, under an agreement with RWQCB. DTSC often acts as lead agency for more complex sites, such as those in the State Annual Work Plan program (State superfund sites). At the Project site, ACHCS has performed oversight of leaking underground storage tank cases at Project site blocks 4 and 7 (described above), while the RWQCB has been involved with oversight over groundwater contamination issues in the Project vicinity since 1999. It is expected that RWQCB will continue to be involved with investigation and remediation of hazardous materials issues in the Project area. A more detailed discussion of regulatory agencies and their respective jurisdictions is included as Appendix E of this EIR.

OFSA provides emergency response to hazardous materials incidents in Oakland. ACHCS assists in emergency response by providing a 24-hour emergency vehicle for identification and advice to first responders regarding the hazardous materials present in the event of a fire or an accidental spill.

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<sup>4</sup> Subsurface Consultants, Inc., 2002, Letter Report, Groundwater Investigation, Uptown Theatre District, Oakland, California, November 11.

<sup>5</sup> Ibid.

<sup>6</sup> Ibid.

Redevelopment agencies involved in site investigation and remediation of hazardous materials may utilize the Polanco Redevelopment Act (California Health and Safety Code, section 33459, et seq.). The Polanco Act was enacted to encourage the safe reuse of potentially contaminated properties. The Act grants redevelopment agencies substantial discretion and authority in the cleanup process. The powers granted under the Act can allow a redevelopment agency to significantly speed up the investigation and remediation process of potentially contaminated properties, and provides mechanisms for recovery of the costs incurred. Typically, the purchaser of a property would assume potential liability for historical contamination, which can act as a disincentive for redeveloping contaminated properties. Following successful assessment and remediation of a property under the provisions of the Act, developers and future land owners are not liable for future cleanup costs that may be incurred as a result of historic contamination. Liable entities could include previous landowners.

**c. Lead and Asbestos in Building Materials.** Lead and asbestos are potentially hazardous materials that are often present in buildings constructed prior to the 1980s. They are regulated differently than other hazardous materials issues, in that lead-based paint may be a worker health and safety issue, and asbestos containing materials are considered both a worker health and safety issue and a potential air quality issue. Accordingly the California Department of Occupational Safety and Health (DOSH), and the Bay Area Air Quality Management District (BAAQMD) regulate demolition and renovation of structures containing lead and asbestos. Demolition and renovation of buildings containing lead and asbestos can be performed safely using special techniques to contain lead particles and asbestos fibers, and personal protective equipment to protect workers. Once abated, lead-based paint and asbestos-containing materials may be hazardous wastes.

Prior to 1978, lead compounds were commonly used in interior and exterior paints. Prior to the 1980s, building materials often contained asbestos fibers, which were used to provide strength and fire resistance. Demolition or renovation of structures constructed prior to these dates has the potential to release lead particles and/or asbestos fibers to the air, where they may be inhaled by construction workers and the general public.

A survey of lead and asbestos in building materials was performed on Blocks 1 through 6 in 1999 by Consulting Associates of California.<sup>7</sup> Lead and asbestos were identified on each of the blocks surveyed. Because most of the buildings on other blocks within the Project site were constructed during the same time period as those on Blocks 1 through 6, lead and asbestos are likely present within these areas. Since the survey was conducted, subsequent survey and abatement activities have taken place, and a number of buildings at the Project site have been demolished, including all structures on Blocks 5 and 6. Block 8 is a surface parking lot, with no structures that potentially contain lead or asbestos.

Lead is a suspected human carcinogen, a known teratogen (i.e., it is a known cause of birth defects), and a reproductive toxin. Federal and State regulations govern the renovation and demolition of structures where lead or materials containing lead are present. Loose and peeling lead-based paint must be abated prior to building demolition, is considered a hazardous waste, and must be disposed of accordingly. Construction worker health and safety regulations pertaining to demolition of structures with lead-based paint are promulgated by federal and State agencies.

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<sup>7</sup> Harding ESE, Inc. 2001, op cit.

Asbestos is a known human carcinogen. Federal, State, and local requirements also govern the removal of asbestos or suspected asbestos-containing materials and the renovation and demolition of structures where asbestos is present. These requirements are maintained by the appropriate federal and State agencies with jurisdiction over hazardous materials and the Bay Area Air Quality Management District (BAAQMD).

## 2. Impacts and Mitigation Measures

This section outlines hazardous materials impacts that may result from implementation of the proposed Project and recommends mitigation measures, as appropriate. Less-than-significant impacts to human health and the environment are listed first, followed by significant impacts.

**a. Significance Criteria.** The proposed Project could be considered to result in significant impacts relating to hazardous materials if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼-mile of an existing or proposed school;
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment;
- Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and would result in a safety hazard for people residing or working in the Project area;
- Be located within the vicinity of a private airstrip, and would result in a safety hazard for people residing or working in the Project area;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

**b. Less-than-Significant Hazards and Hazardous Materials Impacts.** The following discussion describes less-than-significant impacts that would result from the proposed Project:

**(1) Routine Transport, Use, or Disposal of Hazardous Materials.** Implementation of the proposed Project would result in the development of a mixed-use neighborhood. It is not anticipated that large quantities of hazardous materials would be permanently stored or used within the Project site. Small quantities of similar commercially-available hazardous materials (e.g., paint, maintenance supplies) would be routinely used within the Project site for maintenance and cleaning, and could be used by commercial entities operating within the Project site. However, these materials would not be used in sufficient strength or quantity to create a substantial risk of fire or explosion, or otherwise

pose a substantial risk to human or environmental health. Therefore, implementation of the proposed Project would not create a permanent significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials.

**(2) Airport Hazards.** The Project site is located approximately 5 miles north of the Metropolitan Oakland International Airport and is not within the airport's land use plan. The Project site is not located within the vicinity of a private airstrip. Therefore, implementation of the proposed Project would not increase the exposure of persons to airport-related hazards.

**(3) Emergency Response and Wildland Fires.** Implementation of the proposed Project would result in the development of two additional roads within the Project site that would extend from Thomas L. Berkley Way (20<sup>th</sup> Street) to 19<sup>th</sup> Street, and from 19<sup>th</sup> Street to 18<sup>th</sup> Street, adjacent to the Fox Theater. No roadways would be removed as a result of the proposed Project. The development of additional roadways within the Project site would shorten existing block lengths and enhance vehicular access to and throughout the Project site. Therefore, implementation of the Project site would improve emergency access to the Project site. The Project site is located within an urbanized portion of Oakland, and is not susceptible to wildland fires due to its flat topography and lack of significant vegetation.

**c. Significant Hazards and Hazardous Materials Impacts.** Implementation of the proposed Project would result in the following five significant impacts. Implementation of recommended mitigation measures would reduce these impacts to a less-than-significant level.

**Impact HAZ-1: Development of the Project could expose construction workers and/or the general public to hazardous materials from contaminated soil and groundwater during construction activities. (S)**

Environmental investigations have identified portions of the Project site where releases of hazardous materials have affected soils and shallow groundwater. Construction workers could be exposed to contaminants in those materials via inhalation of dust and vapor, direct dermal contact, and/or accidental ingestion. Dust from contaminated soils could also drift outside the immediate construction area and adversely affect nearby workers and residents.

Further investigation is required to evaluate issues that have not been fully addressed within the Project area due to lack of access or other constraints. A list of the Project site blocks on which further investigation is recommended is presented on Table IV.G-3.

Previously unknown contamination may also be encountered during Project development. Environmental investigations conducted at the Project site, including future investigations that may be completed after preparation of this EIR, are based on available historical land use information, such as aerial photographs, fire insurance maps, and evidence of historical hazardous material use apparent during site inspections. Because hazardous material records were not required to be maintained during much of the history of the Project site, hazardous materials that may have been used, stored, or disposed of in areas outside of the areas of concern identified during previous environmental investigations may be encountered. If significant releases of hazardous materials are discovered during environmental investigation and/or construction activities, additional investigation,

**Table IV.G-3: Summary of Recommended Further Subsurface Investigations**

<b>Block</b>	<b>Historic Land Uses Potentially Associated With Hazardous Materials</b>	<b>Contaminants of Concern</b>
3 and 4	Former Gasoline Service Station, Photo Developer	Petroleum hydrocarbons, solvents, metals
5 and 6	Former Machine Works, Trucking Company, and Sign Painting Shop	Petroleum hydrocarbons, solvents, metals
7	Power Substation, Plant Nursery, Tire Service	Petroleum hydrocarbons, solvents, polynuclear aromatic hydrocarbons, pesticides, metals
8	Wood and Coal Yard, Adjoining Gasoline Service Stations, Parking	Petroleum hydrocarbons, metals, solvents and other volatile and semi-volatile organic compounds
9	Cabinet Factory, Auto Repair, Dyeing and Cleaning Facility, Adjoining Gasoline Service Stations, Parking	Petroleum hydrocarbons, metals, solvents and other volatile and semi-volatile organic compounds

Source: Harding ESE, 2001.

remediation, and/or coordination with regulatory agencies may be required prior to redevelopment of the blocks.

Implementation of the following three-part mitigation measure would reduce this impact to a less-than-significant level. The first part of the measure would require further investigation of potential hazardous materials issues identified in previous environmental reports. The second part would require implementation of construction worker health and safety measures. The third part would require the safe management of excavated soils and groundwater in accordance with applicable laws and regulations.

Mitigation Measure HAZ-1a: Prior to issuing any grading, demolition or building permits for the proposed Project affecting Project site Blocks 3 through 9, an environmental investigation shall be conducted at the site by a qualified environmental professional. The environmental investigation shall implement appropriate sampling recommendations presented in previously conducted Phase I site assessment(s) prepared for the Project site, as summarized in Table IV.G-3, in order to adequately characterize subsurface conditions of the site. Environmental investigation workplans shall be submitted to the City of Oakland and RWQCB for review and approval. Information from the environmental investigation shall be used to develop and implement site-specific health and safety plans for construction workers and best management practices (e.g., dust control, storm water runoff control, etc.) appropriate to protect the general public.

Mitigation Measure HAZ-1b: Prior to issuing any grading, demolition, or building permit for the proposed Project, a site-specific Health and Safety Plan (HSP) shall be prepared by a qualified industrial hygienist. At a minimum, the HSP shall summarize information collected in environmental investigations for the Project site, including soil and groundwater quality data; establish soil and groundwater mitigation and control specifications for grading and construction activities, including health and safety provisions for monitoring exposure to

construction workers; provide procedures to be undertaken in the event that previously unreported contamination is discovered; incorporate construction safety measures for excavation activities; establish procedures for the safe storage and use of hazardous materials at the Project site, if necessary; provide emergency response procedures; and designate personnel responsible for implementation of the Plan. The HSP shall be designed to prevent potential exposures to construction workers above established OSHA Permissible Exposure Limits. The Plan shall be submitted to the City of Oakland for review and approval.

**Mitigation Measure HAZ-1c:** Prior to issuing any grading, demolition, or building permit for the proposed Project, a Soil and Groundwater Management Plan (Plan) shall be prepared. The Plan shall include procedures for managing soils and groundwater removed from the site to ensure that any excavated soils and/or dewatered groundwater with contaminants are stored, managed, and disposed of safely, in accordance with applicable regulations. The Plan will incorporate notification and dust mitigation requirements of the BAAQMD (including Title 17, CCR Section 93105). Dewatering procedures will incorporate regulatory requirements for groundwater discharge to storm or sanitary sewers, as outlined in Mitigation Measure HYD-3. The Plan shall be submitted to the City of Oakland and RWQCB for review and approval and shall be implemented throughout all phases of Project development. (LTS)

**Impact HAZ-2: Development of blocks with soil and/or groundwater contamination could expose future residents and workers to potentially hazardous concentrations of contaminants. (S)**

The chlorinated solvent tetrachloroethylene (PCE) has been identified in groundwater near Blocks 1, 2, and 5 at concentrations above ULR Program Tier 1 screening levels for residential land uses. Benzene has been detected in groundwater near Blocks 2 and 4 at concentrations above Tier 1 residential and commercial screening levels. Other contaminants may potentially be discovered in soils and/or groundwater at other locations within the Project site above screening levels, based on historical land uses identified in previous environmental investigations.

The presence of contaminants above Tier 1 screening levels does not necessarily mean that the Project will result in health risks to future residents and workers. The screening levels were established using very conservative assumptions. However, exceedance of the screening levels indicates that additional analysis will be necessary to properly evaluate exposures to future site users, determine the potential for health risks, and establish and implement measures to reduce these risks to a less-than-significant level.

A previous human health risk assessment (HHRA) for the Project vicinity performed in 2001 concluded that known levels of contaminants in groundwater do not pose a risk to future site users under a residential land use scenario where groundwater is not a source of drinking water.<sup>8</sup> This HHRA should be updated using the most current groundwater information available and include site-specific details for construction of the proposed Project. Should there be a potential for health risks, administrative and engineering controls may be required to reduce these risks to a less-than-significant level.

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<sup>8</sup> Chaney, Walton, & McCall/The Ellington Group, 2001, Shallow Groundwater Monitoring Assessment; Uptown Theater District, Oakland, CA, April 1.

The following two-part mitigation measure will reduce potential health risks to future site users to a less-than significant level. The first part would eliminate potential exposures to known hazards by prohibiting use of shallow groundwater at the Project site, therefore eliminating exposures, and requiring that any on-going dewatering activities take place under the Soil and Groundwater Management Plan (implemented as Mitigation Measure HAZ-1c). The second part would require that current health risk assessment documents be updated to incorporate the most recent investigation results and site-specific details regarding Project construction.

Mitigation Measure HAZ-2a: Covenants, codes, and restrictions for the proposed Project shall strictly prohibit the use of groundwater at the Project site for drinking, irrigation, or industrial purposes. Any dewatering activities required at the Project site following construction activities shall be required to be carried out under the Soil and Groundwater Management Plan prepared for the Project (Mitigation Measure HAZ-1c).

Mitigation Measure HAZ-2b: Prior to issuing any permits for construction within the Project site, a Human Health Risk Assessment (HHRA) shall be conducted and/or updated by a qualified environmental professional. This HHRA shall employ methodology from the *City of Oakland Urban Land Redevelopment: Guidance Document*<sup>9</sup> for the Oakland Risk Based Corrective Action (RBCA) program to evaluate potential health risks from petroleum hydrocarbons, metals, solvents, and other volatile organic compounds in soils and groundwater. Depending on the findings of the HHRA, recommendations may be made for administrative or engineering controls to minimize public exposure to hazardous materials, if warranted. These controls could potentially include vapor barriers for building foundations, encapsulation of the site with building foundations and paved parking surfaces to prevent exposure to soils, and implementation of an Operations and Maintenance Plan to insure prescribed controls are implemented and maintained. The controls shall ensure that any potential added health risks to future site users are reduced to a cumulative risk of less than  $1 \times 10^{-5}$  (a calculated risk of 1 in 100,000 persons exposed) for carcinogens and a cumulative hazard index of 1.0. The HHRA shall be submitted to the City of Oakland and RWQCB for review and approval. (LTS)

**Impact HAZ-3: Improper use or transport of hazardous materials during construction activities could result in releases affecting construction workers and the general public. (S)**

Specific construction activities that would occur as part of Project implementation are anticipated to involve the use and transport of hazardous materials. These materials could include contaminated soil and/or groundwater, former underground storage tanks, building demolition debris containing hazardous materials, and fuels, oils, and other chemicals typically used during the construction period. Removal, relocation, or transportation of hazardous materials could result in accidental releases or spills and associated health risks to workers, the public, and environment. Implementation of the following mitigation measure would reduce this impact to a less-than-significant level.

Mitigation Measure HAZ-3: The implementation of Mitigation Measure HAZ-1b would require a Site Safety Plan/Soil and Groundwater Management Plan (Plan). The Plan will establish procedures for the safe storage and use of hazardous materials at the Project site, if

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<sup>9</sup> City of Oakland Urban Land Redevelopment Program, 2000, Guidance Document, Oakland RBCA Program, January 1.

necessary; provide emergency response procedures; and designate personnel responsible for implementation of the Plan. No other mitigation is required. (LTS)

**Impact HAZ-4: Demolition of buildings that contain lead-based paint and asbestos-containing building materials would release airborne lead and asbestos particles, which may adversely affect construction workers and the public. (S)**

Based on previous surveys and the age of the buildings at the Project site, asbestos-containing building materials and lead-based paint are likely to be encountered during Project site demolition activities. The demolition of structures containing asbestos and/or lead-based paint could expose residents and workers to asbestos fibers and lead-based paint dust. Implementation of existing abatement and worker health and safety regulations, as outlined in the mitigation measure below, would reduce those risks to a less-than-significant level.

Mitigation Measure HAZ-4: All asbestos-containing materials shall be abated by a certified asbestos abatement contractor in accordance with construction worker health and safety regulations and the regulations and notification requirements of the Bay Area Air Quality Management District (BAAQMD) (29 CFR 1926.1101; 40 CFR 61 and 152; Title 8 CCR Section 1529; BAAQMD Regulation 11, Rule 2). The removal and disposal of lead-based paint within the Project site shall be completed in accordance with federal and State construction worker health and safety regulations (29 CFR, Part 1926.62; Title 8, CCR Section 532.1; CDHS Training, Certification and Workpractices Rule). (LTS)

**Impact HAZ-5: Development of the Project could result in hazardous emissions or the handling of hazardous materials, substances, or waste within ¼-mile of a proposed school. (S)**

Although no schools are currently located within ¼-mile of the Project site, an arts magnet school has been proposed at the Fox Theater, located adjacent to the Project site. Development of the Project will require the handling of hazardous materials during construction (see Impact HAZ-3, above). Construction activities could also potentially involve the excavation of contaminated soils, which, in the absence of dust control, could potentially migrate and affect a nearby school site.

Section 17213 of the State Education Code requires that a prospective school site be reviewed to determine that the site is not a current or former hazardous waste disposal site, a hazardous substance release site, or the site of hazardous substance pipelines. This section also requires consultation with local hazardous materials agencies and air quality districts to ensure that no sites within ¼-mile that handle or emit hazardous substances would potentially endanger future students or workers at the prospective school site.

The Department of Toxic Substances Control's (DTSC) Schools Property Evaluation and Cleanup Division is responsible for implementing regulations to assess, investigate and remediate proposed school property sites. All proposed school sites that will receive State funding for acquisition or construction are required to go through a rigorous environmental review and cleanup process under DTSC's oversight. DTSC requires that a Preliminary Environmental Assessment (PEA) be prepared to provide basic information for determining if there has been a release of hazardous material at the site, or if there may be present at the site a naturally-occurring hazardous material that presents a risk to human health or the environment.



Mitigation Measure HAZ-5: Implementation of existing regulatory requirements for school siting, and preparation and implementation of a Site Safety Plan/Soil and Groundwater Management Plan (Mitigation Measure HAZ-1b) and lead and asbestos regulations (Mitigation Measure HAZ-4) would reduce this impact to a less-than-significant level. No additional mitigation is required. (LTS)

## H. UTILITIES AND INFRASTRUCTURE

This section evaluates the effects of the Uptown Mixed Use Project on infrastructure and utilities. Potential impacts to infrastructure and utilities that would result from implementation of the proposed Project are identified, and mitigation measures are recommended, as appropriate.

### 1. Setting

This analysis examines the following infrastructure and utility systems: water supply, wastewater, stormwater, solid waste, energy, and telecommunications. The utilities analyzed here were selected on the basis of discussions with a variety of public officials, utility systems staff, and Project stakeholders.

**a. Water.** The following discussion provides background information on the City's water supplies, treatment facilities, and distribution system.

**(1) Water Supply.** Potable water is provided to the Project site, the City of Oakland, and approximately 1.3 million people throughout portions of Alameda and Contra Costa Counties by the East Bay Municipal Utility District (EBMUD). EBMUD obtains approximately 95 percent of its water from the Mokelumne River, and transports it through pipe aqueducts to temporary storage reservoirs in the East Bay hills. EBMUD has water rights and facilities to divert up to a daily maximum of 325 million gallons per day (mgd) from the Mokelumne River.<sup>1</sup> However, this allocation may be constrained by: upstream water use by prior water right holders; downstream water use and other downstream obligations, including protection of public trust resources; drought, or less-than-normal rainfall for more than a year; and emergency outage.

In addition, EBMUD has been recycling water at its main wastewater treatment facility since the early 1970s. Recycled water is suitable for land uses that do not require potable water sources, such as golf courses, some agricultural areas, and industrial uses. Incentives used by EBMUD to encourage customers to utilize recycled water include rate discounts on recycled water and low-interest loans used to retrofit buildings so that they can accommodate recycled water.

The East Bayshore Water Project, which would provide up to 2.3 mgd of recycled water to residents in Alameda, Albany, Berkeley, Emeryville, and Oakland, is currently in the planning stage. The project would involve the construction of new treatment and disinfection facilities at the EBMUD Main Wastewater Treatment Plant. The service area of the East Bayshore Water Project, which is anticipated to be completed prior to 2010, would include the Project site and its surroundings. In January 2002, the City adopted a dual plumbing ordinance, which requires new development to use recycled water provided by EBMUD, and to install a dual plumbing systems if recycled water is anticipated to be available.

Average daily water demand within the EBMUD service area was 211 mgd in 2002 (the most recent full year for which data are available).<sup>2</sup> Demand is projected to increase to 257 mgd by 2010 and 277

<sup>1</sup> East Bay Municipal Utility District, 2001. *Urban Water Management Plan 2000*. February.

<sup>2</sup> East Bay Municipal Utility District, 2003. *Annual Report 2001-2002*.

mgd by 2020.<sup>3</sup> As of 2001, EBMUD's water supply was insufficient to meet customer needs in multiple year droughts, even taking into account the implementation of water conservation and recycling programs.<sup>4</sup>

**(2) Water Treatment Facilities.** There are six water treatment plants in the EBMUD water supply and distribution system. Combined, the six plants have a treatment capacity of over 375 mgd. The Orinda Water Treatment Plant, which supplies water to Downtown Oakland and the Project site, has a peak treatment capacity of 200 mgd. At the Orinda Water Treatment Plant, water is subjected to coagulation, filtration, and disinfection prior to being distributed to the public.

**(3) Distribution Pipelines.** The Project site is located within EBMUD's Central Pressure Zone, which provides water service to customers within an elevation range of 0 to 100 feet. EBMUD owns and operates distribution pipelines under all of the streets within and in the vicinity of the Project site.<sup>5</sup> Typically, required pipeline relocations and extensions, in addition to other water distribution infrastructure improvements, are made at the expense of the Project applicant in consultation with EBMUD's New Business Office.

The Project site is served by 8-inch water lines along San Pablo Avenue and Telegraph Avenue. These lines, and associated minor water line connections, are anticipated to have an available capacity of over 5,000 gallons per minute (gpm). The City Fire Department maintains minimum flow standards for pipelines serving residential and commercial uses. The minimum flow standard for lines serving residential uses is 2,500 gpm; the minimum flow standard for lines serving commercial uses is 4,500 gpm.<sup>6</sup>

**b. Wastewater.** Wastewater collected by interceptors in the EBMUD service area flows to the Main Wastewater Treatment Plant (MWWTP), which is located in Oakland near the eastern entrance of the San Francisco-Oakland Bay Bridge. The MWWTP provides both primary and secondary treatment of wastewater. Primary treatment involves the removal of floating materials, oils and greases, sand and silt, and organic solids sufficiently heavy to settle in water. Secondary treatment involves the removal of suspended organic and chemical impurities. The MWWTP has a primary treatment capacity of 415 mgd and a secondary treatment capacity of 168 mgd. The average annual daily flow into the MWWTP is approximately 77 mgd, representing 46 percent of the plant's secondary treatment capacity.<sup>7</sup> Treated effluent is disinfected, dechlorinated, and discharged 1 mile west of the Oakland shoreline into San Francisco Bay.

Sanitary sewer service to the Project site is provided by the City via pipelines on: Thomas L. Berkley Way (20<sup>th</sup> Street); 19<sup>th</sup> Street; William Street; 18<sup>th</sup> Street; and Telegraph Avenue. The current

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<sup>3</sup> East Bay Municipal Utility District, 2001. *op. cit.*

<sup>4</sup> *Ibid.*

<sup>5</sup> Kirkpatrick, William R., 2003. Manager of Water Distribution Planning. Letter to Patricia McGowan, City of Oakland. March 28.

<sup>6</sup> Khalili, Amin, 2003. Korve Engineering. Personal communication with LSA Associates, Inc. July 24.

<sup>7</sup> East Bay Municipal Utility District, 2001. *op. cit.*

capacity of these pipelines is 1.35 mgd.<sup>8</sup> The current average wastewater flow within these pipelines is 6,970 gpd; peak wastewater flow is approximately 23,698 gpd.<sup>9</sup>

**c. Stormwater.** The City of Oakland, including the Project site, is served by stormwater infrastructure that is owned and maintained by the City. Drainage within the Project site is provided by a local collection system that includes the following components:

- Catch basins at 18<sup>th</sup> Street and Telegraph Avenue that drain to a 27-inch storm drain under Telegraph Avenue;
- Catch basins at 19<sup>th</sup> Street and Telegraph Avenue that drain to a 30-inch storm drain under Telegraph Avenue;
- Catch basins at William Street and Telegraph Avenue that drain to a 30-inch storm drain under Telegraph Avenue;
- Catch basins at Thomas L. Berkley Way (20<sup>th</sup> Street) and Telegraph Avenue that drain to a 30-inch storm drain under Telegraph Avenue; and
- Catch basins at Thomas L. Berkley Way (20<sup>th</sup> Street) and Telegraph Avenue that drain to a 15-inch storm drain under Thomas L Berkley Way (20<sup>th</sup> Street).

The storm drains within the Project site (listed above) combine at the intersection of Thomas L. Berkley Way (20<sup>th</sup> Street) and Telegraph Avenue to feed a large storm drain that extends under Telegraph Avenue and 21<sup>st</sup> Street to an outfall on Lake Merritt. This large storm drain ranges in size from 40 inches to 72 inches.

The Project site is covered with impervious surfaces, resulting in a high rate of runoff generation per unit of surface area. Runoff from the Project site generally drains to the north and east; as described above, runoff from the Project site is deposited in Lake Merritt, and ultimately flows to San Francisco Bay. Drains and pipes that currently serve the Project site can adequately accommodate existing stormwater runoff. There is no record of storm drainage problems within or around the Project site.<sup>10</sup>

**d. Solid Waste.** Solid waste and yard trimmings within the City of Oakland are collected by Waste Management of Alameda County. These materials are taken to the Davis Street Transfer Center in San Leandro. The Transfer Center, which has a maximum allowable capacity of 5,600 tons of waste per day, received an average of 3,028 tons per day in 2001.<sup>11</sup> The facility can process up to 320 tons (per day) of concrete, asphalt, dirt, bricks, wood, and metal. After undergoing processing, waste from the Transfer Station is delivered to the Altamount Landfill in eastern Alameda County. The landfill comprises approximately 1,528 acres and is anticipated to have sufficient capacity to operate until 2050.

<sup>8</sup> Khalili, Amin, 2003. Korve Engineering. Personal communication with LSA Associates, Inc. July 24.

<sup>9</sup> Ibid.

<sup>10</sup> Toothman, Robert, 2003. Korve Engineering. Personal communication with LSA Associates, Inc. August 28.

<sup>11</sup> Kaufman, Debra, 2003. Alameda County Waste Management Authority. Personal communication with LSA Associates, Inc. July 14.

In 1989, the California Legislature enacted the California Integrated Waste Management Act (AB 939), which requires the diversion of waste materials from landfills in order to preserve the decreasing capacity of landfills. Cities and counties in California were required to divert 25 percent of solid waste by 1995, and 50 percent of solid waste by the year 2000. AB 939 further requires every city and county to prepare two documents demonstrating how the mandated rates of diversion will be achieved. The *Source Reduction and Recycling Element* describes the chief source of the jurisdiction's waste, the existing diversion programs, and current rates of waste diversion and new or expanded diversion programs. The *Household Hazardous Waste Element* describes each jurisdiction's responsibility in ensuring that household hazardous wastes are not mixed with non-hazardous solid wastes and subsequently deposited at a landfill. Oakland's Source Reduction and Recycling Element and its Household Hazardous Waste Element were approved in 1991 by the California Integrated Waste Management Board.<sup>12</sup>

The City provides curbside recycling to Downtown Oakland and the Project site. Curbside recycling includes the following materials: glass, aluminum and tin, motor oil, cardboard, magazines and newsprint, and plastic. Recyclable materials are delivered to the Davis Street Transfer Center where they are processed.

Oakland Municipal Code Chapter 15.34 requires building permit applications for new construction, demolition, or alterations and additions (with a valuation of \$50,000 or greater) to be accompanied by an approved Waste Reduction and Recycling Plan (WRRP). The WRRP is required to document the ways that the applicant will reduce the quantity of construction and demolition debris disposed at landfills by 50 percent or more. The City will not approve a building permit for a project until the WRRP is approved.

**e. Energy.** The Pacific Gas & Electric Company (PG&E) provides electricity and natural gas service to Downtown Oakland and the Project site. Most of Oakland's electrical power is delivered via 12-kilovolt (kV) transmission lines from PG&E Substation L. Substation L receives 155 kV and distributes power to upper downtown Oakland and West Oakland. Local electric and gas distribution lines are located within the Project site.

**f. Telecommunications.** SBC Communications (SBC) provides residential and commercial telephone service within Downtown Oakland and the Project site. SBC also provides or hosts a variety of other telecommunications services, including Digital Subscriber Lines (DSL), Internet Service Provider (ISP), web hosting, virtual private networking, and wireless/cellular and paging services.

The California Public Utilities Commission requires that SBC anticipate and serve new growth. To meet this requirement, SBC continually upgrades its facilities and infrastructure, adding new facilities and technology to remain in conformance with California Public Utilities Commission tariffs and regulations and to serve customer demand in the City.

Additions to the City's infrastructure and proposals for development would result in a need for expansion or changes to SBC's infrastructure, which would involve suitable siting for equipment place-

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<sup>12</sup> California Integrated Waste Management Board, 2002. *Waste Stream Information Profiles*. Website: [www.ciwmb.ca.gov/profiles/](http://www.ciwmb.ca.gov/profiles/).

ment. Suitable sites must meet requirements for the physical transmission of telecommunication services and conform to the City's guidelines. SBC also works with the City to ensure that construction of new facilities does not interfere with any new or newly-paved streets.

## 2. Impacts and Mitigation Measures

This section discusses potential impacts to infrastructure and utility systems that could result from implementation of the proposed Project. The section begins with the criteria of significance, which establish the thresholds used to determine whether an impact is significant. The latter part of this section presents the impacts associated with the proposed Project and identifies mitigation measures, if appropriate. Less-than-significant impacts to infrastructure and utilities are listed first, followed by significant impacts. Stormwater and storm drain-related impacts are discussed in Section IV.C, Hydrology and Water Quality.

**a. Significance Criteria.** The proposed Project would have a significant impact on the City's infrastructure and utility systems if it would:

- Exceed wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board;
- Require or result in construction of new storm water drainage facilities or expansion of existing facilities, construction of which could cause significant environmental effects;
- Exceed water supplies available to serve the Project from existing entitlements and resources, and require or result in construction of water facilities or expansion of existing facilities, construction of which could cause significant environmental effects;
- Result in a determination by the wastewater treatment provider which serves or may serve the Project that it does not have adequate capacity to serve the Project's projected demand in addition to the providers' existing commitments and require or result in construction of new wastewater treatment facilities or expansion of existing facilities, construction of which could cause significant environmental effects;
- Be served by a landfill with insufficient permitted capacity to accommodate the Project's solid waste disposal needs and require or result in construction of landfill facilities or expansion of existing facilities, construction of which could cause significant environmental effects;
- Violate applicable federal, State, and local statutes and regulations related to solid waste;
- Violate applicable federal, State and local statutes and regulations relating to energy standards; or
- Result in a determination by the energy provider which serves or may serve the Project that it does not have adequate capacity to serve the Project's projected demand in addition to the providers' existing commitments and require or result in construction of new energy facilities or expansion of existing facilities, construction of which could cause significant environmental effects.

**b. Less-than-Significant Utilities and Infrastructure Impacts.** The following discussion describes less-than-significant impacts to infrastructure and utilities systems that would result from implementation of the proposed Project.

(1) **Water.** The proposed Project would require water for a variety of uses, including household uses, commercial uses, and irrigation of the proposed 25,000 square-foot park. Based upon anticipated uses within the Project site, implementation of the proposed Project would result in an average daily demand for water of 329,000 gpd (120,085,000 gallons per year).<sup>13</sup> The anticipated daily water demand that would result from implementation of the proposed Project represents approximately 0.2 percent of average daily water demand within the EBMUD service area. The proposed Project would be outfitted with water-conserving fixtures, as required by the Uniform Building Code, and would incorporate dual plumbing systems, to take advantage of available recycled water supplies. Private, water-consuming lawns would not be developed as part of the proposed Project. Therefore, the proposed Project, which represents an efficient use of water, would not require the construction of new water supply facilities. EBMUD representatives have given a preliminary indication that they can serve this Project's water demand, and the EBMUD Board will confirm that determination by the end of September 2003.

Anticipated daily water demand that would result from implementation of the proposed Project represents 0.2 percent of the treatment capacity of the EBMUD water supply and distribution system. Sufficient water treatment capacity exists within the EBMUD system to accommodate water demand generated by the proposed Project. Therefore, implementation of the proposed Project would not require expansion of the existing water treatment system.

The average daily water demand associated with the proposed Project would be approximately 228 gallons per minute, or approximately 4 percent of available water line capacity.<sup>14</sup> Sufficient capacity exists to accommodate this increased demand, although select lines may need to be improved depending upon their age and condition. Line improvements would be made during the Project construction period and are not anticipated to result in significant environmental impacts.

Requirements for minimum water flow (for the purpose of fighting fires) at project sites in the City are based on negotiations with the Oakland Fire Department. Typically, fire flow requirements are 2,500 gpm for residential uses, and 3,500 gpm for commercial uses. As noted in subsection a(3), Distribution Pipelines, water lines that serve the Project site are anticipated to have an available capacity of over 5,000 gpm. Based on the anticipated capacity of water lines serving the Project site, and correspondence with EBMUD, it is expected that minimum water flow would be available within the Project site without a major upgrade of water lines.<sup>15</sup>

(2) **Wastewater.** Implementation of the proposed Project would result in the generation of approximately 280,000 gpd of wastewater.<sup>16</sup> Wastewater generated by the proposed Project represents less than 0.2 percent of the MWWTP's secondary treatment capacity. This wastewater would be accommodated by the MWWTP, which is currently operating at 46 percent of its secondary treatment capacity. Therefore, wastewater generated by the proposed Project would be subject to both primary and secondary treatment and would not violate the wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board. The wastewater lines that serve the

<sup>13</sup> Khalili, Amin, 2003. Korve Engineering. Personal communication with LSA Associates, Inc. July 24.

<sup>14</sup> Ibid.

<sup>15</sup> Toothman, Robert, 2003. Korve Engineering. Personal communication with LSA Associates, Inc. September 2.

<sup>16</sup> Ibid.

Project site have a capacity of 1.35 mgd based on average existing wastewater flow (6,970 gpd), and could accommodate the increase in flow that would result from the proposed Project.<sup>17</sup> Public Works Agency staff have indicated that as part of the final public improvement plans for the Project, the conveyance system will be evaluated to confirm what repairs, if any, will be incorporated into the final public improvement plans and specifications. Therefore, implementation of the proposed Project would not require the construction of new wastewater treatment or transport facilities.

**(3) Stormwater.** Implementation of the proposed Project would not alter drainage patterns within the Project site; after the conclusion of Project construction, runoff from the Project site would drain to the north and east, as occurs under existing conditions.

The proposed Project includes the development of an approximately 25,000 square foot public park, which would include turf areas, tree and shrub plantings, and minimal hardscape. In addition, trees in tree wells would be installed throughout the Project site. Because the Project site is currently covered by impervious surfaces, development of the park and tree wells (as part of Project implementation) would reduce the amount of impervious surfaces within the Project site. Implementation of the proposed Project would result in the development of pervious surfaces over approximately 5.5 percent of the Project site.

The total amount of runoff from a site is directly proportional to the coverage of the site by impervious surfaces; thus, any decrease in the coverage of a site by impervious surfaces would result in an overall decrease in both peak runoff volume and total runoff volume. Therefore, implementation of the proposed Project, which would introduce pervious greenscape features into the Project site, would reduce the amount of runoff from the Project site. Because stormwater infrastructure that currently serves the Project site can accommodate existing flows, and no records have been found of any storm drainage problems in or around the Project site, implementation of the proposed Project would not require the construction of new storm drain facilities or the expansion of existing facilities.

**(4) Solid Waste.** The proposed Project would be designed and developed in accordance with State and local solid waste regulations (federal solid waste regulations do not apply to the proposed Project). Proposed buildings would be outfitted with designated areas for drop-off of recyclable material, and recycling receptacles would be installed throughout the Project site, including in the open space area. In addition, the Project applicant would prepare a WRRP, consistent with the Oakland Municipal Code. Implementation of the WRRP would ensure that the quantity of construction and demolition waste generated by the proposed Project would be reduced by at least 50 percent, and would not substantially affect the remaining capacity of the Davis Street Transfer Station or the Altamont Landfill.

According to the California Integrated Waste Management Board, the average resident in Alameda County generates 1.4 pounds per day of solid waste; the average employee generates 5.1 pounds of waste per day.<sup>18</sup> Although solid waste generation rates can vary substantially by geographic locality, type of industry, or type of residential unit, these County-wide average waste generation rates can be used to approximate the amount of waste that would be generated by the proposed Project. Based on

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<sup>17</sup> Ibid.

<sup>18</sup> California Integrated Waste Management Board, 2003. Profile for Alameda County. Website: [www.ciwmb.ca.gov/Profiles/County/CoProfile1.asp](http://www.ciwmb.ca.gov/Profiles/County/CoProfile1.asp)



these generation rates, the anticipated 3,266 persons that would live within the Project site and the 182 persons that would be employed within the Project site as a result of Project implementation would generate approximately 5,500 pounds of waste per day and 2,007,719 pounds of waste per year. As noted previously in this section, the Davis Street Transfer Center has a maximum capacity of 5,600 tons of waste per day. The increase in waste generation resulting from the proposed Project represents less than 0.1 percent of the total capacity of the Davis Street Transfer Center. The anticipated life of the Altamount Landfill would not be reduced by implementation of the proposed Project.

**(5) Energy and Telecommunications.** The proposed Project would include energy-saving appliances, as required by the Uniform Building Code, and would be in conformance with all existing energy regulations. New construction would take place in or immediately adjacent to developed areas currently served by electricity, gas, and telecommunications lines. Connecting new construction to existing lines would involve relatively minor improvements, such as connections to existing distribution mains. The increase in demand generated by the proposed Project would not exceed the planned or existing energy supply, according to a PG&E representative.<sup>19</sup>

**c. Significant Utilities and Infrastructure Impacts.** The proposed Project would not result in significant impacts to infrastructure and utilities.

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<sup>19</sup> Chew, Rodney, 2003. Industrial Power Engineer, Pacific Gas and Electric Company. Personal communication with LSA Associates, Inc. June 18.

## I. HISTORIC ARCHITECTURAL, ARCHAEOLOGICAL AND PALEONTOLOGICAL RESOURCES

The following sections describe the baseline and project conditions for historic architectural, archaeological and paleontological resources within or adjacent to the Uptown Mixed-Use Project site. The purpose of this section is to: 1) describe the baseline conditions for historic architectural resources, archaeological resources, and paleontological resources within the Uptown Mixed Use Project area and its surroundings; 2) describe the legal significance of identified historic architectural, archaeological, and paleontological resources within the Project area; and 3) identify potentially-significant impacts to such resources that may result from Project implementation, and recommend mitigation to reduce impact significance.

Historic architectural resources consist of existing buildings, structures, or objects that are historically significant at the local, State, or national level. These resources may display their significance for an association with an important person or notable events in American history; or, these resources may be significant for their expression of a certain type or style of construction or architectural craftsmanship. Generally, any building, structure, or object 50 years or older may be identified as a historic architectural resource.

Archaeological resources can consist of any remains of human activity, although usually only those resources 50 years or older are formally documented. Archaeological resources usually occur as sites, which are the concentrated, geographically-defined material remains that result from a specific human activity, event, or occupation, or combination thereof. Archaeological resources can also occur as features, or minor components, of larger archaeological site (e.g., a trash pit associated with the remains of a former 19<sup>th</sup> century boarding house).

Paleontological resources consist of fossils and their immediate surroundings. Historic architectural and archaeological resources are often referred to as cultural resources.

### 1. Cultural Resources Setting

This section presents the results of the cultural resources, including historic architectural and archaeological resources, analysis conducted for the Project area. The following sections provide: 1) the methods of the analysis; and 2) a Project area setting, including a brief overview of the history of Oakland and the Project area, a summary and map of potential historic resources within and adjacent to the Project area, an overview of the area's archaeological sensitivity, and a review of the laws, codes, and regulations applicable to cultural resources in Oakland.

**a. Methods.** Background research for this cultural resources analysis included a records search, literature review, and consultation with historical and Native American organizations. This research was conducted to identify cultural resources or cultural resource studies within or adjacent to the Project area, and to prepare the archaeological, ethnographic, and historical setting of the Project area.

**(1) Records Search.** A records search (#02-890) was completed on May 16, 2003 at the Northwest Information Center (NWIC) of the California Historical Resources Information System, Sonoma State University, Rohnert Park, California. The NWIC is an affiliate of the California Office of Historic Preservation and is the official state repository of cultural resources reports and records for

a 16-county area, including Alameda County. The cultural resource inventories reviewed by LSA included:

- *California Inventory of Historic Resources*;<sup>1</sup>
- *Five Views: An Ethnic Historic Site Survey for California*;<sup>2</sup>
- *California Historical Landmarks*;<sup>3</sup>
- *California Points of Historical Interest*;<sup>4</sup> and
- *Directory of Properties in the Historic Property Data File for Alameda County*.<sup>5,6</sup>

**(2) Literature Review.** LSA reviewed prehistoric, ethnographic, and historical overviews and local planning documents for information about the Project area. City planning documents included the *Historic Preservation Element of the Oakland General Plan*<sup>7</sup> and the architectural resource forms and listings in the *Uptown Project Area Historic Resources*.<sup>8</sup>

**(3) Consultation.** The California Native American Heritage Commission (NAHC) was requested, in a letter on May 19, 2003, to review their sacred lands file to determine if Native American cultural resources are within the Project area, and to provide a list of Native American individuals or groups that may have knowledge about such resources or concerns about the Project area. Ms. Debbie Pilas-Treadway, Environmental Specialist III, responded in a faxed letter of May 30, 2003, that the NAHC did not identify any Native American cultural resources within or adjacent to the study areas.

Historical organizations were contacted to solicit any concerns they may have about cultural resources in the Project area. The following list identifies the organizations contacted and the responses received:

- Oakland Heritage Alliance, contacted by letter on May 19, 2003.  
*Ms. Naomi Schiff, member of the Board of Directors of the Oakland Heritage Alliance, called on Friday, May 23, 2003. Ms. Schiff expressed concern about the effects of the size and nature of the proposed Project on nearby historic resources. She urged the consideration of Project alternatives to incorporate some of the existing buildings proposed for demolition.*

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<sup>1</sup> California Department of Parks and Recreation, 1976. *California Inventory of Historic Resources*. Sacramento.

<sup>2</sup> California Department of Parks and Recreation, Office of Historic Preservation, 1988. *Five Views: An Ethnic Historic Site Survey for California*. Sacramento.

<sup>3</sup> California Department of Parks and Recreation, Office of Historic Preservation, 1990. *California Historical Landmarks*. Sacramento.

<sup>4</sup> California Department of Parks and Recreation, Office of Historic Preservation, 1992. *California Points of Historical Interest*. Sacramento.

<sup>5</sup> California Department of Parks and Recreation, Office of Historic Preservation, April 29, 2003. *Directory of Properties in the Historic Property Data File for Alameda County*. Sacramento.

<sup>6</sup> The Directory of Properties includes the listings in the National Register of Historic Places, California Register of Historical Resources, California Historical Landmarks, and California Points of Historical Interest.

<sup>7</sup> City of Oakland, 1994. *Historic Preservation Element of the General Plan*. Oakland, California.

<sup>8</sup> City of Oakland Planning Department, Oakland Cultural Heritage Survey, 2000, 1983-85, and 1994-95. *Uptown Project Area Historic Resources*. Oakland, California.

- City of Oakland Landmarks Preservation Advisory Board, contacted by letter on May 19, 2003.  
*No response received as of June 28, 2003.*
- City of Oakland Planning Department, Oakland Cultural Heritage Survey (OCHS), contacted by letter on May 19, 2003 and in person on June 17, 2003.  
*On June 17, 2003, Betty Marvin, Planner III, of the Planning Department provided background historical information and OCHS resource forms for historic resources within and adjacent to the Project area.*

**b. Prehistory and Ethnography.** The Oakland area was probably settled by native Californians between 12,000 and 6,000 years ago.<sup>9</sup> Subsequently, Penutian peoples entered central California around 4,500 years ago, and were firmly settled around San Francisco and Monterey Bays by 1,500 years ago. The descendants of these native groups prefer to be called Ohlone,<sup>10</sup> although they are often referred to by the name of their linguistic group, Costanoan. Oakland is located within the territory of a people who spoke *Chochenyo* and occupied a large area of the East Bay. *Chochenyo* was one of eight Costanoan languages.<sup>11</sup>

The Ohlone economy was based on fishing, gathering, and hunting, with the land and waters providing a diversity of resources including acorns, various seeds, salmon, deer, rabbits, insects, and quail. The Ohlone, like many other Native American groups in the Bay Area, likely lived in conical tule thatch houses.<sup>12,13,14,15</sup>

Politically, the Costanoans were organized into groups called tribelets. A tribelet constituted a sovereign entity that held a defined territory and exercised control over its resources. A tribelet was also a unit of linguistic and ethnic differentiation.<sup>16</sup>

Intensive Hispanic exploration of the Bay Area began in the late eighteenth century, and radically transformed the Ohlone culture. When European settlers moved into northern California, they established the mission system and exposed the Ohlone to diseases to which they had no immunity.

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<sup>9</sup> Fredrickson, David A., 1974. *Cultural Diversity in Early Central California: A View from the North Coast Ranges*. *Journal of California Anthropology* 1(1):41-53.

<sup>10</sup> Margolin, Malcolm, 1978. *The Ohlone Way: Indian Life in the San Francisco-Monterey Bay Area*. Heyday Books, Berkeley, California.

<sup>11</sup> Richard Levy, 1978. Coastanoan. In *Handbook of North American Indians, Volume 8: California*, edited by R.F. Heizer, pp.485-497. Smithsonian Institution, Washington, D.C.

<sup>12</sup> Milliken, Randall, 1995. *A Time of Little Choice, The Disintegration of Tribal Culture in the San Francisco Bay Area 1769-1810*, pp. 24, 244. Ballena Press Anthropological Papers No. 43, Menlo Park, California.

<sup>13</sup> Stewart, Suzanne B., 1982. Volume 4: Alameda, Contra Costa, and Marin. In *Prehistoric Overview Northwest Region: California Archaeological Inventory*, edited by David A. Fredrickson. Anthropological Studies Center, Sonoma State University, Rohnert Park, California, and State of California Office of Historic Preservation, Sacramento.

<sup>14</sup> Moratto, Michael J., 1984, op. cit.

<sup>15</sup> Bennyhoff, James A., 1994. Variation within the Meganos Culture. In *Toward a New Taxonomic Framework for Central California Archaeology: Essays by James A. Bennyhoff and David A. Fredrickson*, assembled and edited by Richard E. Hughes, pp. 81-89 (original manuscript, 1987). Contributions of the University of California Archaeological Research Facility 52. Berkeley.

<sup>16</sup> Ibid.

Mission records indicate that the *Chochenyo* speakers moved from the Oakland area to Mission San Jose.<sup>17</sup> Following the secularization of the missions in 1834, native people in the Bay Area moved to ranchos, where they worked as manual laborers.<sup>18</sup>

**c. Historical Setting.** The Project area lies entirely within the *Rancho San Antonio* land grant. This rancho was originally granted to Luis Maria Peralta on August 3, 1820 for his service to the Spanish government. His 43,000-acre rancho included what are now the cities of Oakland, Berkeley, Alameda, and parts of San Leandro and Piedmont. Peralta's land grant was confirmed after Mexico's independence from Spain in 1822, and this title was honored when California entered the Union by treaty in 1848. Despite this acknowledged title, squatters moved in to use the vast amounts of Peralta's undeveloped land. Cattle were stolen and slaughtered, and trees were removed by squatters and people travelling to and from the gold fields.<sup>19</sup>

In 1850, Andrew Moon, Horace W. Carpentier, and Edson Adams built a house on Peralta's property at the foot of Broadway, near the banks of an estuary. This house site was in what is now Jack London Square. Vicente Peralta attempted to legally evict the group, but eventually relented and allowed them to lease the land. Instead of complying with the terms of their lease, Moon, Carpentier, and Adams hired Julius Kellersberger, a Swiss engineer, to survey the land and lay out the town that became Oakland. The area was encompassed by Fallon, Market, First, and Fourteenth streets. The City of Oakland was incorporated in 1852, and officially recognized by the state by 1854.<sup>20</sup>

Oakland grew around its waterfront, with development limited only by the available modes of transportation. Steam ferry service to San Francisco was established in 1850, and by 1869 the first horse-car followed a route from the estuary up Telegraph Avenue to 40<sup>th</sup> Street. On November 8, 1869, the transcontinental railroad's first west bound trip rolled through Oakland along Central Pacific tracks, which terminated at the new 7<sup>th</sup> Street station. By 1891, Oakland's first electric street car ran along Broadway to the city of Berkeley.<sup>21</sup>

The devastation of the 1906 earthquake and fire in San Francisco prompted the development of new residential areas in Oakland to accommodate displaced San Francisco residents. Older neighborhoods became more densely populated as new apartment buildings and related growth became part of Oakland's residential fabric. The increase in population also increased demand for retail goods, and shopping districts expanded throughout the next decade to meet this demand. These shopping areas served a large population, as shoppers traveled to Oakland by streetcar to take advantage of the new establishments.<sup>22</sup>

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<sup>17</sup> Milliken, Randall, 1995, op. cit.

<sup>18</sup> Levy, Richard, 1978, op. cit.

<sup>19</sup> Hoover, Mildred B., Hero E. Rensch, Ethel G. Rensch, and William N. Abeloe, 1990:18-19. *Historic Spots in California*. Stanford University Press, Stanford, California. Fourth edition, revised by Douglas E. Kyle.

<sup>20</sup> Ibid.

<sup>21</sup> Oakland History Room of the Oakland Public Library, revised by the City of Oakland Community and Economic Development Agency. *Oakland History Timeline*. <[www.oaklandnet.com/celebrate/historytimeline.htm](http://www.oaklandnet.com/celebrate/historytimeline.htm)>

<sup>22</sup> Woodbridge, Sally, 1984. Historical and Architectural Resources. In Oakland Central District Development Program, pp. 11-12. On file at the Northwest Information Center, Sonoma State University, Rohnert Park, California.

Throughout the 20<sup>th</sup> century, commercial enterprises and industrial development, particularly the Port of Oakland and the Oakland Municipal Airport, played a vital role in Oakland's growth. During World War II, the Port provided land and facilities to the Army and Navy. Oakland became the largest shipping center on the West Coast by 1943, and within two decades was the largest container terminal on the West Coast. As suburbs grew outward during the 1950s, the inner core of the City, around which activity used to revolve, began to decline as residents and resources left for the outlying areas. The perception of Oakland, as with many large cities during the 1960s and 1970s, was that of a neglected urban core with high unemployment, racial tension, and reduced economic opportunity.<sup>23</sup> This trend began to reverse in the 1980s as reinvestment and redevelopment helped to invigorate the City's image and prospects. In 1995, California's "Golden Triangle," which included Oakland, San Jose and San Francisco, was named by *Fortune Magazine* as the best place to do business in the United States.<sup>24</sup>

**d. Project-Specific Historical Setting.** The City of Oakland mostly developed south of the Project area until new modes of transportation prompted growth north of "Old Oakland." What became San Pablo and Telegraph Avenues remained dirt roads until the 1850s, with the present day Project area located far north of downtown. However, the roads served as important thoroughfares and contributed to the economic and institutional functioning of the growing city. After 1869, when a new City Hall was built at the intersection of Broadway, San Pablo, and Telegraph Avenues, Oakland's main commercial district also moved north to encompass parts of the Project area.

The Project area consisted of estates, small farms, and homesteads until the 1870s, when residential neighborhoods began to develop north of downtown Oakland. The original blocks between Telegraph and San Pablo Avenues were the Campbell Tract between 18<sup>th</sup> and 19<sup>th</sup> streets; the Hogan Tract between 19<sup>th</sup> and Thomas L. Berkley Way (20<sup>th</sup>) streets; and the Boardman Tract between Thomas L. Berkley Way (20<sup>th</sup>) and 21<sup>st</sup> streets. The parcels within the Project area to the east of Telegraph Avenue on Thomas L. Berkley Way (20<sup>th</sup>) and 22<sup>nd</sup> streets (Project Blocks #8 and #9) were in Wilcox Place.<sup>25</sup> In 1869, a horse-car line began operating from the waterfront up Broadway to Telegraph Avenue. The route then proceeded up Telegraph Avenue to 36<sup>th</sup> Street.

The growth of suburbs was accelerated following the opening of the horse-car line in 1869. By the late 1800s, downtown Oakland covered the area between Broadway and Washington, and 7<sup>th</sup> and 14<sup>th</sup> Streets, and included many new commercial buildings.<sup>26</sup>

The Project area remained mostly residential with a mixture of small-scale commercial uses until the 1910s, when a growing population led to increased consumer demand. By the late 1930s, a variety of businesses occupied the Project area south from William Street, including a pants factory, furniture stores, bicycle shops, a dance studio, markets, candy shops, jewelry stores, and other establishments. The area north of William Street continued to be predominantly residential. Today, the Project area consists mostly of commercial uses, parking facilities, and empty lots.

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<sup>23</sup> Bagwell, Beth, 1982, op. cit.

<sup>24</sup> Oakland History Room of the Oakland Public Library, op. cit.

<sup>25</sup> City of Oakland Assessor's Office. City Tax Assessment Block Books, 1876/77-1910. Oakland, California.

<sup>26</sup> Woodbridge, Sally, 1984, op. cit.

**e. Historic Architectural Resources Within and Adjacent to the Project Area.** The records search at the NWIC indicated that no cultural resource studies have been previously conducted within the Project area, and no recorded prehistoric or historical archaeological sites are within or adjacent to the Project area. Five studies on file at the NWIC have been conducted within 1,200 feet of the Project area (NWIC reference numbers S-11154; S-12957; S-16863; S-18536; and S-24996). One prehistoric burial and one isolated sewer valve box dating to the latter half of the 20<sup>th</sup> century were identified within 1,500 feet of the Project area.

The entire Project area has been surveyed for historic architectural resources by the OCHS,<sup>27</sup> though the report is not on file at the NWIC. The documentation for this survey was acquired from the OCHS; significance ratings for individual properties and districts are based on a graduated system<sup>28</sup> set forth in the *Historic Preservation Element of the Oakland General Plan* (HPE).

The following sections identify historic architectural archaeological resources within or adjacent to the Project area.<sup>29</sup>

**(1) Historic Architectural Resources Within the Project Area.** Five individual historic architectural properties and a portion of one historic district are within the Project area. OCHS documentation indicates that one of the five buildings (the Great Western Power Company Building) is listed on the City of Oakland's Local Register of Historical Resources (Local Register), and the remainder are Potential Designated Historic Properties (PDHPs)<sup>30</sup> as defined by the HPE. The historic district (19<sup>th</sup> and San Pablo Commercial District) is identified by OCHS as an Area of Secondary Importance (ASI), and includes three of these five buildings as contributors. These five buildings, as well as others within the Project that are not eligible for listing in the Local Register or that do not qualify as PDHPs, are summarized in Table IV.I-1. Figure IV.I-1 is a map showing the locations of historical resources and PDHPs within the Project site. The five properties and one district within the Project area that are listed in the Local Register or identified as PDHPs are:

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<sup>27</sup> City of Oakland Planning Department, Oakland Cultural Heritage Survey, 2000, 1983-85, and 1994-95, op. cit.

<sup>28</sup> **OCHS Ratings:** A = Property of Highest Importance; B = Major Importance; C = Secondary Importance; D = Minor Importance; E = Of No Particular Importance; F or \* = Unrated. Altered and post-1945 properties that could receive a higher rating under some contingency (e.g., if restored, when older, or if additional information is provided) receive a dual rating, with a small letter indicating the potential rating.

**District Status:** 1 = Property is within an Area of Primary Importance (API); 2 = Property is within an Area of Secondary Importance (ASI); 3 = not in an API or an ASI. Contributory status within an API or ASI is indicated by a plus sign (+); noncontributory status is indicated by a minus sign (-). A property that is a potential contributor if restored is indicated by an asterisk (\*). For example, Dc2+ describes a property of Minor Importance, contributory to an ASI, and that could be of Secondary Importance if restored.

Properties with at least a potential "C" rating or potentially contributing to an ASI (2\*) meet the broadest definition of historic in the Preservation Element of the Oakland General Plan and are called "Potential Designated Historic Properties" or "PDHPs." Properties with ratings of A, B, 1+, or 1\*, along with all "Designated Historic Properties" (e.g., Landmarks, Preservation Study List, National Register) are classified as Oakland's "Local Register of Historical Resources" for environmental review purposes.

<sup>29</sup> This information was acquired from published local, state, and national historic resource inventories and registers. Please see the source codes in the cultural resources table for property-specific source information.

<sup>30</sup> PDHPs may be eligible for Designated Historic Property status (if a property is designated, a property is considered a historical resource for the purposes of CEQA) if they: 1) have an existing or contingency rating of "A," "B," or "C" in the OCHS; or 2) have been determined to contribute or potentially contribute to an Area of Primary or Secondary Importance.

**Table IV.I-1: Historic Architectural Resources Within Project Area**

No.	Street Address		Description	Date	NRHP Code <sup>a</sup>	Local Code <sup>b</sup>	Historical Resource <sup>c</sup>	PDHP <sup>d</sup>	Source <sup>e</sup>
1	518	20th St	Great Western Power Company / PG&E Substation	1924	3S	B+2+	Y	Y	HPD, O
2	522-26	20th St	Demers Candy Company Building	1922		D3	N	N	O
3	530-32	20th St	Louise Bauer House	1905		D3	N	N	O
4	536-40	20th St	Scott-Buttner Electric Company Building	1964		*3	N	N	O
5	548	20th St	Culinary Worker's Alliance Building	1956		*3	N	N	O
6	556-62	20th St	Bresnikar Building	1953		*3	N	N	O
7	565	20th St	Robertson Building	1945	6	D3	N	N	HPD, O
8	571	20th St	Barbagelata Garage	1931	6	Ed3	N	N	HPD, O
9	585	20th St	Clifford Auto Electric Shop	1925		Ed3	N	N	O
10	593	20th St	Gear Garage	1929	6	Ed3	N	N	O
11	605-09	20th St	Millar White Store Building	1954	7R	*3	N	N	O
12	495	22nd St	Kwik Way Drive-In / Giant Burger	c.1960		*c3	N	Y	CHS
13	1918-24	San Pablo Ave	Feldstein-Oakland Pants Factory	1931	6	D2	N	N	HPD, O
14	1928-40	San Pablo Ave	Feldstein-Oakland Pants Factory Addition	1947	6	*d2-	N	N	HPD, O
15	1950-54	San Pablo Ave	Feldstein Hotel, store, office	1950		*2-	N	N	O
16	1958-60	San Pablo Ave	Snyder-Olmstead Building	1889		Dc2-	N	Y	O
17	1966-68	San Pablo Ave	Olmstead Building	1900		C2+	N	Y	O
18	1972	San Pablo Ave	Muller Tailor-Rankin plumbing shop	1883		C2+	N	Y	O
19	1998	San Pablo Ave	White Cabin Lunch Company	1930	7R	Dc2-	N	Y	HPD, O
20	1901	Telegraph Ave	Skaggs Payless Drug Company / Garage	1956		*3	N	N	O
21	2003-09	Telegraph Ave	Santa Fe-Continental Trailways Bus Depot/ Angel Beauty Supply	1948		D3	N	N	O
49	Various		19 <sup>th</sup> and San Pablo Commercial District		7R	ASI	N		HPD, O

<sup>a</sup> 3S Appears eligible for listing as a separate property by person(s) completing or reviewing the form

6 None of the above

7R Submitted as Part of a Reconnaissance Level Survey; not evaluated

<sup>b</sup> Local Codes/OCHS Ratings (see Footnote #43).

<sup>c</sup> Y Resource is presently considered a historical resource for the purposes of CEQA.

N Resource is not considered a historical resource for the purposes of CEQA, and does not have the potential for such consideration.

<sup>d</sup> CHS Personal Communication with CHS (Betty Marvin, Planner III), June 2003.

HPD *Directory of Properties in the Historic Property Data File for Alameda County, California* Office of Historic Preservation, April 29, 2003.

O Oakland Cultural Heritage Survey, July 2000.

<sup>e</sup> Y Resource qualifies as a PDHP.

N Resource does not qualify as a PDHP.

Source: LSA Associates, Inc., 2003.



Figure IV.I-1: Historic Architectural Resources and PDHPs

8x11 B&W

- *518-520 Thomas L. Berkley Way (20<sup>th</sup> Street), the Great Western Power Plant*

This building, also formerly known as the Navlet's Florist and Nursery, has a "B" rating from the OCHS and is on the Preservation Study List. It is considered a historical resource for the purposes of CEQA. This building is shown as reference #1 on Figure IV.I-1.

Built in 1924 for the Great Western Power Company as a power and steam heat plant, the Great Western Power Company Substation operated as PG&E Substation M into the 1950s, and was converted from industrial to commercial use in 1960. Designed by Ashley & Evers, who also designed the nearby Capwell's (now Sears) and Oakland Floral Depot buildings, the Beaux Arts-derivative building retains its massive arched façade, overscaled classical detailing, and a 150-foot smokestack that exemplifies the beautification of utilitarian structure by the City Beautiful movement of the early 20<sup>th</sup> century.<sup>31</sup>



*Great Western Power Company Building*

- *1958-60 San Pablo Avenue<sup>32</sup>*

This building has a "Dc" rating from OCHS and is a contributor to an ASI. It is a contributor to the 19<sup>th</sup> and San Pablo Commercial District, most of which lies north-west of the Project area. The building at 1958-60 San Pablo Avenue is not considered a historical resource for the purposes of CEQA, but it does meet the definition of a PDHP. This building is shown as reference #16 on Figure IV.I-1.



*1958-60 San Pablo Avenue*

<sup>31</sup> City of Oakland Planning Department, Oakland Cultural Heritage Survey, 2000, 1983-85, and 1994-95, op. cit.

<sup>32</sup> 1958-60 San Pablo Avenue, the Snyder-Olmstead Building, is an example of 19<sup>th</sup> century vernacular-Italianate commercial architecture, built between 1889 and 1893 for Andrew Jackson Snyder, an noted Oakland businessman.

- *1966-68 San Pablo Avenue*<sup>33</sup>

This building has a “C” rating from OCHS and is a contributor to the 19<sup>th</sup> and San Pablo Commercial District. The building at 1966-68 San Pablo Avenue is not considered a historical resource for the purposes of CEQA, but it does meet the definition of a PDHP. This building is shown as reference #17 on Figure IV.I-1.

- *1972 San Pablo Avenue*<sup>34</sup>

This building, formerly known as the James Rankin Plumbing Shop, has a “C” rating from OCHS and is a contributor to the 19<sup>th</sup> and San Pablo Commercial District. The building at 1972 San Pablo Avenue is not considered a historical resource for the purposes of CEQA, but it does meet the definition of a PDHP. This building is shown as reference #18 on Figure IV.I-1.



*1966-68 San Pablo Avenue*



*1966-68 San Pablo Avenue*

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<sup>33</sup> 1966-68 San Pablo Avenue, the Olmstead Building, is an example of falsefront Italianate commercial architecture, built between 1900 and 1902 for physician Theo Olmstead.

<sup>34</sup> 1972 San Pablo Avenue, the Muller tailor-Rankin plumbing Building, is an example of falsefront Italianate commercial architecture, built between 1883 and 1884 for tailor John Muller. Later, in the 1920s, plumbing contractor James Rankin acquired the building.

- *1998 San Pablo Avenue*<sup>35</sup>

This building has a “Dc” rating from OCHS, and, although located within the 19<sup>th</sup> and San Pablo Commercial District, it is not a district contributor. The building at 1998 San Pablo Avenue is not considered a historical resource for the purposes of CEQA, but it does meet the definition of a PDHP. This building is shown as reference #19 on Figure IV.I-1.



*1998 San Pablo Avenue*

- *19<sup>th</sup> and San Pablo Commercial District*

The Project area includes a portion of the 19<sup>th</sup> and San Pablo Commercial District, although most of the district lies northwest and outside of the Project area. Please see the description of the 19<sup>th</sup> and San Pablo Commercial District in the following section for more information. This district is shown as reference #49 on Figure IV.I-1.



*A portion of the 19<sup>th</sup> and San Pablo Commercial District*

**(2) Historical Architectural Resources Adjacent to the Project Area.**

Architectural resources adjacent to the Project area consist of individual historic architectural properties and historic districts. These properties are summarized in Table IV.I-2 and shown relative to the Project area in Figure IV.I-1. The summary is based on resource listings from the OCHS and the *Directory of Properties in the Historic Property Data File for Alameda County*.<sup>36</sup>

Three potential historic districts (two Areas of Primary Importance [API] and one Area of Secondary Importance [ASI]) front streets that border the Project area. These districts are the 19<sup>th</sup> and San Pablo Commercial District (ASI), the Cathedral District (API), and the Uptown Shopping/Entertainment District (API). These districts are briefly summarized below based on OCHS documentation.

<sup>35</sup> 1998 San Pablo Avenue, the White Log Tavern/Coffee Shop Building, is an example of a 1930s theme restaurant, built between 1930 and 1931 for the White Cabin Lunch Company.

<sup>36</sup> California Department of Parks and Recreation, Office of Historic Preservation, April 29, 2003, op. cit.

**Table IV.I-2: Historic Architectural Resources Adjacent to Project Area**

No.	Street Address	Description	Date	NRHP Code <sup>a</sup>	Local Code <sup>b</sup>	Historical Resource <sup>c</sup>	PDHP <sup>d</sup>	Source <sup>e</sup>	Comments <sup>f</sup>
22	519 18th St	U.S. Ice Ventures	1995	7	*3	N	N	O	
23	577-79 18th St	Johnson Creamery	1914	7	Dc3	N	Y	HPD, O	
24	581-87 18th St	Gier Company	1909	7	Cb+3	N	Y	HPD, O	
25	604 20th St	Pacific Gas & Electric Substation	1924	7	D2+	N	Y	O	
26	630-42 20th St	California Peanut Company/Oakland Post Building	1920	7	Cb-2+	N	Y	O	
27	570 21st St	No additional information	1888	3D	C1+	Y	Y	HPD	
28	1701 San Pablo Ave	Dental Office/Mel's Drive-In	1954	7	*c3	N	Y	O	
29	1716-30 San Pablo Ave	California Furniture Company/California Art Supply	1946	7	C3	N	Y	O	
30	1719-39 San Pablo Ave	Johnson Building	1895	7	Ed3	N	N	O	
31	1801-39 San Pablo Ave	Kahn Store Building	1927	6	Ed3	N	N	HPD, O	
32	1901-15 San Pablo Ave	Hanifin Block	1878	3S	A2+	Y	N	HPD, O	On Preservation Study List.
33	1917-23 San Pablo Ave	Robert Dalziel Block, Friedmans Appliance Company	1878	3S	B+a2+	Y	N	HPD, O	On Preservation Study List.
34	1939-63 San Pablo Ave	Hotel Arcade	1907	4S	B-b+2	Y	Y	HPD, O	
35	2000-08 San Pablo Ave	Hotel Royal	1912	3S	B+2+	Y	N	HPD, O	On Preservation Study List.
36	2012 San Pablo Ave	Matthews Store Building	1922	7R	Ed3	N	N	HPD, O	
37	1733-41 Telegraph Ave	Smith (Money Back) Building	1947	5S	C3	N	Y	O	
38	1807-29 Telegraph Ave	West Coast Oakland Theater Building (Fox Theater)	1927	1S	A1+	Y	N	HPD, O	City Landmark; NR
39	1812 Telegraph Ave	McElroy (J.J.) Building	1914	4D	*c1	Y	Y	HPD	
40	1900 Telegraph Ave	Oakland Floral Depot Building	1931	2S	A1+	Y	N	HPD	On Preservation Study List.
41	2101 Telegraph Ave	YMCA Building	1909	2S2	A3	Y	N	HPD, O	On Preservation Study List.
42	2201 Telegraph Ave	First Baptist Church of Oakland	1905	3B	A1+	Y	N	HPD, O	On Preservation Study List.
43	1727 Telegraph Ave	Bart's Dress Shop	1947	7R	Dc3	N	Y	HPD, O	
44	1935 Broadway	H.C. Capwell Building/Emporium-Capwell	1928	3D	B-a1+	Y	N	HPD	On Preservation Study List.
45	2001 Broadway	I. Magnin and Company Building	1930	3B	A	Y	N	HPD	On Preservation Study List.
46	2025 Broadway	Paramount Theater	1930	1S	A1+	Y	N	HPD	City Landmark; NR; NHL
47	Various	Cathedral District	1872-1916	3S	ASI	Y	N	O	
48	Various	Uptown Shopping/Entertainment District	1920s-30s	3S	API	Y	N	O	
49	Various	19th and San Pablo Commercial District	1870-1940s	7S	ASI	N	Y	O	Part in, part adjacent

<sup>a</sup> 1S Listed in the National Register as an individual property  
 2S Determined eligible for the National Register  
 2S2 Determined eligible for separate listing by a consensus determination  
 3B Both 3S and 3D  
 3D Appears eligible as a contributor to a fully documented district by person(s) completing or reviewing the form  
 3S Appears eligible for listing as a separate property by person(s) completing or reviewing the form  
 4D Contributor to a fully documented district that may become eligible for listing  
 4S May become eligible for listing as a separate property  
 5S Ineligible for the National Register but is of local interest  
 6 None of the above  
 7 Undetermined  
 7R Submitted as Part of a Reconnaissance Level Survey: not evaluated.  
 7S Undetermined as a separate listing

<sup>b</sup> Local Codes/OCHS Ratings (see Footnote #43)  
<sup>c</sup> Y Resource is presently considered a historical resource for the purposes of CEQA.  
 N Resource is not considered a historical resource for the purposes of CEQA, and does not have the potential for such consideration.  
<sup>d</sup> Y Resource qualifies as a PDHP.  
 N Resource does not qualify as a PDHP.  
<sup>e</sup> CHS Personal Communication with CHS, June 2003.  
 HPD *Directory of Properties in the Historic Property Data File for Alameda County*, California Office of Historic Preservation, April 29, 2003.  
 O Oakland Cultural Heritage Survey, July 2000.  
<sup>f</sup> NR National Register of Historic Places  
 NHL National Historic Landmark  
 Source: LSA Associates, Inc., 2003.

- *19<sup>th</sup> and San Pablo Commercial District (ASI)*

The 19<sup>th</sup> and San Pablo Commercial District is a Victorian/late 19<sup>th</sup>, early 20<sup>th</sup> century commercial district consisting of 12 buildings on all or part of twelve blocks in the Central Oakland neighborhood. Most of the district lies northwest and outside of the Project area. It includes early 20<sup>th</sup> century commercial, Italianate commercial, and Beaux Arts-derivative buildings. The dates of contributing buildings range from the 1870s to the 1940s. Currently, the surrounding areas consist of commercial, residential, and transportation uses. Three of the four buildings identified as PDHPs within the Project area (1958-60 San Pablo Avenue, 1966-68 San Pablo Avenue, and 1972 San Pablo Avenue) are contributors to this district. The 19<sup>th</sup> and San Pablo Commercial District is listed as an ASI by the OCHS.<sup>37</sup>

- *Cathedral District (API)*

The bulk of the Cathedral District consists of one and two story family residences built between 1872 and 1916. This district lies to the northeast of the Project area. Architectural styles represented in this district include Italianate, Stick, Shingle, Queen Anne, Colonial Revival, and Arts and Crafts. The Cathedral District was recorded by the OCHS as part of the Central District Survey in 1983. At that time, it contained 38 contributing buildings and four noncontributing; four have since been demolished. The Project area does not contain any contributing buildings of the Cathedral District.<sup>38</sup>

- *Uptown Shopping/Entertainment District (API)*

The Uptown Shopping/Entertainment District consists mainly of brownstone and terra cotta loft buildings from the 1920s, and Art Deco terra cotta buildings from the 1930s. During this time the area developed as a luxury shopping and entertainment center. There are several especially distinctive buildings within the Uptown Shopping/Entertainment District, including the Capwell and I. Magnin department stores, the Floral Depot, and the Fox and Paramount Theaters.<sup>39</sup> None of these buildings, nor any other contributors to the district, are within the Project area.

**f. Archaeological Sensitivity.** A preliminary sensitivity assessment was conducted for the Project area to determine the likelihood of Project activities encountering potentially-significant subsurface archaeological deposits. To determine prehistoric archaeological sensitivity, the Project area's environmental setting and the locations of nearby archaeological sites were reviewed. For historical archaeological sensitivity, previous historical research (including information from Sanborn fire insurance maps) was used to identify the general types of economic activities that occurred within the Project area. This historical information was used to predict the type and nature of archaeological remains that may be present within the Project area.

Based on background research, the Project area has a low-to-moderate likelihood of containing prehistoric archaeological deposits, and a high likelihood of containing historical archaeological deposits.

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<sup>37</sup> City of Oakland Planning Department, Oakland Cultural Heritage Survey, 2000, 1983-85, and 1994-95, op. cit.

<sup>38</sup> Ibid.

<sup>39</sup> Ibid.

**(1) Prehistoric Archaeological Sensitivity.** Greater uptown Oakland is situated in a setting that offered early inhabitants a nearby diversity of rich ecological communities from which to gather plant and animal resources. Prehistoric archaeological sites have been recorded in the vicinity of the Project area. Prehistoric archaeological site CA-ALA-22, near the corner of 13<sup>th</sup> Street and Broadway, yielded a burial during the construction of a building foundation.

Several Ohlone villages in the vicinity of the Project area were still inhabited prior to the Peralta land grant. One village was near the current intersection of Telegraph and Claremont Avenues, while another was noted in the Trestle Glen area, originally referred to as Indian Gulch. A third was on the grounds of Holy Names College.<sup>40</sup> The Project area is located near the historic San Francisco Bay margins, which were known for supporting a diversity of plant and animal resources. The proximity of the Bay margins indicates that the Project area was probably used by people in prehistoric times for food procurement, and, possibly, habitation. Although historical use and development of the Project area most likely disturbed those prehistoric archaeological sites on the surface, it is possible that buried deposits exist at depths that were not impacted by past activities.

**(2) Historical Archaeological Sensitivity.** The Project area is in an area of high sensitivity for historical archaeological deposits. The Project area was part of the *Rancho San Antonio* land grant, and remained rural until the 1870s. Neighborhoods began to develop at that time as the City expanded outwards, and the area remained primarily residential until the 1910s. A transition in uses from predominantly residential to a mixture of industrial and commercial occurred from the 1910s to the 1930s. Today, the study area is primarily business and parking use with little housing.

Documentary research indicates that historical archaeological deposits within the Project area will most likely include evidence of residential, industrial, and commercial land use. Such deposits may be associated with businesses and homes between the 1870s and 1930s. These deposits can include backfilled privies, wells, discrete trash pits, or structural remains linked to the documented growth of Oakland and the shift in land use, economic focus, and day-to-day activities in the Project area. These deposits may contain important information about Oakland's formative periods, particularly the development of the City's residential neighborhoods and the growth of local commercial establishments as Oakland became a leading regional city. In addition, research indicates that the east side of San Pablo Avenue between 19<sup>th</sup> and 20<sup>th</sup> Streets was a Chinese neighborhood during the 1870s, and archaeological deposits that may exist from this period have the potential to provide information about an ethnic group's assimilation by a dominant American culture, and the degree to which tradition lifeways were maintained or modified.<sup>41</sup>

**g. Regulatory Context.** The California Environmental Quality Act (CEQA) requires that a Project's effects on historical resources be considered if the Project involves funding or approval from public agencies. A property may be considered a historical resource under CEQA in four ways:

- the property is listed in or determined eligible for listing in the California Register of Historical Resources (California Register);
- the property is listed in a Local Register;<sup>42</sup>

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<sup>40</sup> Beth Bagwell, 1982. *op. cit.*

<sup>41</sup> Beth Bagwell, 1982, *op. cit.*, p. 87.

<sup>42</sup> State of California, Public Resources Code §5020.1(k).

- the property is identified as significant in a historical resource survey<sup>43</sup> unless a preponderance of the evidence demonstrates that it is not historically or culturally significant; or
- the property is determined by the lead agency to be significant in light of the whole record and substantial evidence.

**(1) California Register of Historical Resources.** The California Register provides a means for determining which properties are to be considered historical resources for the purposes of CEQA review. A property that is determined eligible for listing is afforded the same protection as one that is formally listed. A property may be eligible for listing in the California Register if it:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage; or
- Is associated with the lives of persons important in our past; or
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possess high artistic values; or
- Has yielded, or has the potential to yield, information important in prehistory or history.

**(2) City of Oakland Local Register Listings.** The Public Resources Code Section 5020.1(k) defines a local register as a list of resources designated or recognized as historically significant pursuant to a local resolution or ordinance. In 1998, the Oakland City Council amended the HPE first drafted in 1994. The HPE established a ratings system for use in designating locally-significant resources, which built on the system developed by the OCHS. The HPE also established the following policy with respect to historical resources under CEQA:

- Policy 3.8 For the purposes of environmental review under CEQA, the following properties will constitute the City of Oakland's Local Register:
  - 1) All "Designated Historic Properties;"
  - 2) Those "Potential Designated Historic Properties" that have an existing rating of "A" or "B" or are located within an "Area of Primary Importance;"
  - 3) Until complete implementation of Action 2.1.2 (Redesignation), the "Local Register" will also include the following designated properties: Oakland Landmarks, S-7 Preservation Combining Zone properties, and Preservation Study List properties.

The HPE includes other policies that seek to encourage the preservation of Oakland's significant historic resources within the context of balanced development and growth. These policies are presented below.

- Policy 3.1: (Avoid or Minimize Adverse Historic Preservation Impacts Related to Discretionary City Actions) The City will make all reasonable efforts to avoid or minimize adverse effects on the Character-Defining Elements of existing or Potential Designated Historic Properties which could result from private or public projects requiring discretionary actions.

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<sup>43</sup> The survey must meet the requirements listed in §5024.1(g) of the Public Resources Code.



- **Policy 3.4:** (City Acquisition for Historic Preservation Where Necessary) Where all other means of preservation have been exhausted, the City will consider acquiring, by eminent domain if necessary, existing or Potential Designated Historic Properties, or portions thereof, in order to preserve them. Such acquisition may be in fee, as conservation easements, or a combination thereof.
- **Policy 3.5:** (Historic Preservation and Discretionary Permit Approvals) For any project involving the complete demolition of Heritage Properties or Potential Designated Historic Properties requiring discretionary City permits, the City will make a finding that: 1) the design quality of the proposed Project is at least equal to that of the original structure and is compatible with the character of the neighborhood; or 2) the public benefits of the proposed Project outweigh the benefit of retaining the original structure; or 3) the existing design is undistinguished and does not warrant retention and the proposed design is compatible with the character of the neighborhood.
- **Policy 3.7:** (Property Relocation Rather than Demolition) As a condition of approval for all discretionary projects involving demolition of existing or Potential Designated Historic Properties, the City will normally require that reasonable efforts be made to relocate the properties to an acceptable site.

**(3) Historical Resources Survey.** A property is presumed to be a historical resource for the purposes of CEQA if it is identified as significant in a historical resources survey,<sup>44</sup> unless a preponderance of evidence demonstrates that the property is not a historical resource.

**(4) Lead Agency Determination.** Under CEQA, a lead agency may determine that a property is a historical resource even if the property is not listed on or determined eligible for listing on the California Register, not included in a local register, or not identified as significant in a historical resources survey.<sup>45</sup>

## 2. Paleontological Resources Setting

This section presents the results of a paleontological resources analysis conducted for the Project. The following sections provide: 1) the methods of the analysis; 2) a brief description of the Project area's geological and paleontological setting; and 3) a paleontological resource sensitivity assessment for the Project area.

**a. Methods.** The paleontological resources analysis consisted of: 1) a fossil locality search conducted by staff at the Museum of Paleontology at the University of California, Berkeley (UCMP) on June 17, 2003, to identify paleontological resources within or adjacent to the Project area; and 2) a review of literature on file at LSA to determine the geological and paleontological history of the Project area.

**b. Geological and Paleontological Setting.** Geologically, the Project area consists of Quaternary alluvium. This alluvium, although geologically young, contains a number of fossil bearing units.<sup>46</sup> Between the Project area and San Francisco Bay to the west, the alluvium gets progressively younger

<sup>44</sup> The survey must meet the requirements of PRC §5024.1(g).

<sup>45</sup> CEQA Guidelines §15064.5(a).

<sup>46</sup> Wagner, D., E. Bortugno, and R. McJunkin, 1990. *Geologic Map of the San Francisco–San Jose Quadrangle*. California Division of Mines and Geology, Map 5a. Sacramento.

and much of the earth above sea level is made up of artificial fill. The Hayward Fault, approximately 2.5 miles east of the Project area, runs northwest to southeast along an area where Mesozoic rocks of the Franciscan Complex rise up to form the Oakland Hills. Deposits within the Project area comprise the following geological units:

- **Artificial Fill.** Artificial fill is unconsolidated earth brought to the Bay margins to expand the amount of developable land above sea level. It is unlikely that this earth will contain significant fossils.
- **Younger Quaternary Alluvium.**<sup>47</sup> These deposits overlie the Pleistocene alluvium and Merritt sands in the Bay Area. Older portions of this stratum are bedded medium-to-fine-grained sand, and are found within and adjacent to the Project site. These alluvial deposits may contain modern vertebrate and invertebrate fossils.<sup>48</sup>
- **Merritt Sands.**<sup>49</sup> These Pleistocene sands underlie the Project area as well as most of downtown Oakland and Alameda. As described in flatland deposit maps, these Eolian deposits are generally loose and measure roughly 50 feet thick in Oakland.<sup>50,51</sup> The Merritt sands may contain paleontological resources.
- **Older Quaternary Alluvium.** The majority of earth in and around Oakland consists of alluvial sedimentary deposits ranging in age from Late Pleistocene to earliest Holocene. The oldest alluvium<sup>52,53</sup> contains vertebrate<sup>54</sup> and invertebrate<sup>55</sup> fossils. Fossils that may be found in this alluvium include bison, mammoth, ground sloths, saber-toothed cats, dire wolves, and rodents.<sup>56,57</sup> These alluvial deposits are found northeast, east, and southeast of the Project site, and underlie the Merritt Sands within the Project area.

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<sup>47</sup> Helley, E., K. LaJoie, W. Spangle, and M. Blair, 1979. *Flatland deposits of the San Francisco Bay Region, California—their geology and engineering properties, and their importance to comprehensive planning*. Geological Survey Professional Paper 943, United States Department of the Interior. Washington, D.C.

<sup>48</sup> Helley, E., K. LaJoie, W. Spangle, and M. Blair, 1979, op. cit.

<sup>49</sup> Lawson, A., 1914. *Description of the San Francisco District, California*. United States Geological Survey Atlas, Folio 193. Washington, D.C.

<sup>50</sup> Helley, E., K. LaJoie, W. Spangle, and M. Blair, 1979. op. cit.

<sup>51</sup> Helley, E., K. LaJoie, and D. Burke, 1972. *Geologic Map of the Late Cenozoic deposits of Alameda County, California*. United States Geological Survey Miscellaneous Field Studies Map MF-429. Washington, D.C.

<sup>52</sup> Helley, E., K. LaJoie, W. Spangle, and M. Blair, 1979, op. cit.

<sup>53</sup> Helley, E., K. LaJoie, and D. Burke, 1972. op. cit.

<sup>54</sup> Stirton, R. A., 1951. Prehistoric Land Animals of the San Francisco Bay Region. In *Geology Guidebook of the San Francisco Bay Counties: History, Landscape, Geology, Fossils, Minerals, Industry, and Routes to Travel*, prepared by Olaf P. Jenkins, pp. 177-186. State of California Department of Natural Resources, Division of Mines Bulletin 154. San Francisco.

<sup>55</sup> Hertleinf, Leo George, 1951. Invertebrate Fossils and Fossil Localities in the San Francisco Bay Area. In *Geology Guidebook of the San Francisco Bay Counties: History, Landscape, Geology, Fossils, Minerals, Industry, and Routes to Travel*, prepared by Olaf P. Jenkins, pp. 187-192. State of California Department of Natural Resources, Division of Mines Bulletin 154. San Francisco.

<sup>56</sup> Helley, E., K. LaJoie, W. Spangle, and M. Blair, 1979, op. cit.

<sup>57</sup> Savage, D., 1951. *Late Cenozoic Vertebrates of the San Francisco Bay Region*. University of California Publications, Bulletin of the Department of Geological Sciences 28(10):215-314.

- **Franciscan Formation.**<sup>58</sup> This formation underlies the Project area at great depth and will not be encountered by Project activities.

**c. Paleontological Sensitivity Assessment.** The Project site lies on Eolian Merritt sands underlain by Quaternary alluvium.<sup>59</sup> The older alluvium deposits, made up of Plio-Pleistocene sediments, are known to bear vertebrate fossils.<sup>60</sup> The fossil locality search conducted at the UCMF indicated that no known fossil localities occur within or adjacent to the Project area. There are, however, 12 vertebrate fossil localities within 5 miles of the Project site. All of these localities are Quaternary in age. Vertebrate fossils recovered from these sites include mammoths, mastodons, ground sloths, bison, camels, and cave bears. Deposits of this age can also contain fossils of bear, saber-toothed cats, rhinoceroses, rodents, mustelids, birds, reptiles, and amphibians. Such localities are considered significant, nonrenewable paleontological resources. Since the geological deposits within the Project area are similar to those that contain these significant resources, the Project area is sensitive for paleontological resources.

### 3. Impacts and Mitigation Measures

Implementation of the proposed Project has the potential to significantly impact cultural resources. Impact avoidance is the first and most desirable option, but this is not always feasible in a densely-built and populated urban area such as downtown Oakland. If avoidance is not feasible, mitigation measures may be implemented that will, in several cases, offset these impacts or reduce them to a less-than-significant level (e.g., impacts HIST-2 and HIST-3). Other impacts would remain significant and unavoidable, even with the implementation of the recommended mitigation measures (e.g., impacts HIST-6 and HIST-7).

**a. Criteria of Significance.** The following criteria of significance are based on the CEQA guidelines and the HPE. The proposed Project would have a significant effect on the environment if it would:

- Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines §15064.5. Specifically, substantial adverse changes include physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be “materially impaired.” The significance of a historical resource is “materially impaired” when a project demolishes or materially alters, in an adverse manner, those physical characteristics of the resource that convey its historical significance and that justify its inclusion on, or eligibility for inclusion on, a historical resource list (including the California Register of Historical Resources, a local register, and historical resources survey forms<sup>61</sup> (DPR Form 523));
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5;

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<sup>58</sup> Helley, E., K. LaJoie, W. Spangle, and M. Blair, 1979. op. cit.

<sup>59</sup> Wagner, D., E. Bortugno, and R. McJunkin, 1990, op. cit.

<sup>60</sup> Savage, D., 1951, op. cit.

<sup>61</sup> Anything, particularly over 45 years old, can be recorded on a DPR 523.

- Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature; or
- Disturb any human remains, including those interred outside of formal cemeteries.

**b. Paleontological and Historic Architectural and Archaeological Resource Impacts.** Project activities that have the potential to significantly impact paleontological and cultural resources include: 1) soil excavation and grading for semi-subterranean parking facilities and building utilities; 2) demolition of existing buildings; 3) construction of new buildings; and 4) enhancement of lighting and streetscape features on street frontages around the Project area. These Project activities will occur in or along numbered Block areas #1-8 as shown on the Project location map.

Potentially-significant impacts to paleontological and cultural resources that may occur as a result of Project implementation are discussed below. Mitigation measures are then recommended to reduce impact significance, where possible, to less-than-significant levels.

**(1) Grading and Excavation Related Impacts.** Construction of the proposed Project would require soil excavation and grading for building foundations, utilities, and semi-subterranean parking facilities. These activities could potentially impact both paleontological and cultural resources as described below.

**Impact HIST-1: Ground disturbing activities for the construction of subterranean parking structures, building foundations, and underground sewer and utility facilities could adversely impact paleontological resources. (S)**

The sediments that underlie the Project area have a high sensitivity for the occurrence of significant, nonrenewable paleontological resources.<sup>62</sup> Excavation could inadvertently damage such resources and result in a significant adverse impact.<sup>63</sup>

Mitigation Measure HIST-1a: A paleontological resources monitoring plan should be developed in consultation with a qualified paleontologist prior to Project-related ground-disturbing activities. This monitoring plan should incorporate the findings of Project-specific geotechnical investigations to identify the location and depth of deposits that have a high likelihood of containing paleontological resources and that may be encountered by Project activities. This information will indicate the depth of overlying non-sensitive soils (i.e., artificial fill and prior disturbance) within the Project area to allow a more effective determination of where paleontological monitoring is appropriate.

Mitigation Measure HIST-1b: A qualified paleontologist should monitor all ground-disturbing activity that occurs at depths within the Project area determined to be sensitive in the paleonto-

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<sup>62</sup> The Society of Vertebrate Paleontology has identified vertebrate fossils, their taphonomic and associated environmental indicators, and fossiliferous deposits as significant, nonrenewable paleontological resources. Botanical and invertebrate fossils and assemblages may also be considered as significant. For further information, please refer to: Conformable Impact Mitigation Guidelines Committee, 1995. Assessment and Mitigation of Adverse Impacts to Nonrenewable Paleontological Resources: Standard Guidelines. *Society of Vertebrate Paleontology News Bulletin* 163:22-27.

<sup>63</sup> CEQA Guidelines, Appendix G(V).

logical monitoring plan. Monitoring should continue until, in the paleontologist's opinion, significant, nonrenewable paleontological resources are unlikely to occur.

In the event that paleontological resources are encountered during excavation, all work within 50 feet of the find shall be redirected until the monitor has evaluated the situation and provided recommendations for the protection of, or mitigation of adverse effects to, significant paleontological resources. Mitigation for impacts to significant paleontological resources shall include thorough documentation of the find and its immediate context to recover scientifically-valuable information. Upon completion of paleontological monitoring, a monitoring report shall be prepared. This scope of this report shall be approved by the City, but at a minimum the report will document the methods, results, and recommendations of the monitoring paleontologist. (LTS)

**Impact HIST-2: Ground disturbing activities for the construction of subterranean parking structures, building foundations, and underground sewer and utility facilities could adversely impact cultural resources. (S)**

Native Americans are known to have occupied and used the Project area vicinity, and in the historical American period residential and commercial use of all portions of the Project area was intensive and varied. These activities may have resulted in unidentified archaeological deposits that may qualify as historical or unique archaeological resources under CEQA. Project-related ground-disturbing activities may potentially disturb these deposits, which may result in a significant adverse effect to historical or archaeological resources under CEQA. Mitigation measures can reduce these effects to less-than-significant levels.

**Mitigation Measure HIST-2:** A qualified archaeologist<sup>64</sup> shall monitor all ground-disturbing activities in the Project area until, in the archaeologist's opinion, a depth has been reached at which potentially-significant archaeological deposits are unlikely to occur.

Should an archaeological deposit be encountered by Project activities, the monitor shall be empowered to halt construction in the vicinity of the find. Construction activities shall be redirected and a qualified archaeologist shall: 1) evaluate the archaeological deposit to determine if it meets the CEQA definition of a historical or archaeological resource; and 2) make recommendations about the treatment of the deposit, as warranted. If the deposit does not meet the CEQA definition of a historical or archaeological resource, then no further study or protection of the deposit is necessary. If the deposit does meet the CEQA definition of a historical or archaeological resource, then it shall be avoided by Project activities. If avoidance is not feasible, then effects to the deposit shall be mitigated through a data recovery strategy developed by the evaluating archaeologist. Mitigation of impacts to significant archaeological deposits through data recovery will recover scientifically-valuable information. This mitigation may include, but is not limited to, a thorough recording of the resource on DPR Form 523 records, or archaeological excavation. If archaeological excavation is the only feasible method of data recovery, then such excavation shall conform to the provisions of CEQA Guidelines §15126.4(b)(3)(C).

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<sup>64</sup> "Qualified" is defined as meeting the professional standards established by the Secretary of the Interior. These standards can be found at: <http://www2.cr.nps.gov/laws/ProfQual83.htm>.

Upon completion of such archaeological monitoring, evaluation, or data recovery mitigation, the archaeologist should prepare a report documenting the methods, results, and recommendations of the investigation, and submit this report to the NWIC. (LTS)

**Impact HIST-3: Ground-disturbing activities for the construction of subterranean parking structures, building foundations, and underground sewer and utility facilities could disturb human remains, including those interred outside of formal cemeteries. (S)**

Mitigation Measure HIST-3: Should human remains be encountered by Project activities, construction activities shall be halted and the County Coroner notified immediately. If the human remains are of Native American origin, the Coroner must notify the Native American Heritage Commission (NAHC) within 24 hours of this identification, and a qualified archaeologist should be contacted to evaluate the situation. The NAHC will identify a Native American Most Likely Descendent (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. The archaeologist shall recover scientifically-valuable information, as appropriate and in accordance with the recommendations of the MLD. Upon completion of such analysis, as appropriate, the archaeologist shall prepare a report documenting the methods and results of the investigation. This report shall be submitted to the NWIC. (LTS)

**(2) Building Demolition and New Building Construction.** As shown in Table IV.I-1 and Figure IV.I-1, there are a total of 22 historic architectural resources (including portions of the 19<sup>th</sup> and San Pablo Commercial District) located within the Project site. All of the buildings located within Blocks 1 through 7 are proposed for demolition, with the possible exception of the Great Western Power Company Building. The Project applicant is considering three Project variants involving the Great Western Power Plant Building:

- **Demolition** of the Great Western Power Company Building (Variant 1);
- **Partial demolition** of the Great Western Power Company Building (Variant 2); or
- **Preservation** of the Great Western Power Company Building (Variant 3).

The impacts associated with these three different scenarios are discussed below. Resource #12 (see Figure 1), Kwik Way Drive-In/Giant Burger on Block 9 may also be demolished if Block 9 is selected to accommodate the relocation of the Sears Auto Center. This resource is not considered significant because it does not meet the criteria in subsection 1(g), Regulatory Context.

Of the 22 historic architectural resources within the Project site, the six resources listed below have the potential to be considered historical resources pursuant to CEQA.

- *518-520 Thomas L. Berkley Way (20<sup>th</sup> Street), the Great Western Power Plant (Local Register)*
- *1958-60 San Pablo Avenue, Snyder-Olmstead Building (PDHP)*
- *1966-68 San Pablo Avenue, Olmstead Building (PDHP)*
- *1972 San Pablo Avenue, Muller Tailor-Rankin plumbing shop (PDHP)*

- *1998 San Pablo Avenue, White Cabin Lunch Company (PDHP)*
- *19<sup>th</sup> and San Pablo Commercial District (ASI)*

OCHS documentation indicates that one of the five buildings (the Great Western Power Company Building) is listed on the City of Oakland's Local Register, and the remainder are Potential Designated Historic Properties (PDHPs). The historic district (19<sup>th</sup> and San Pablo Commercial District) is identified by Oakland Cultural Heritage Survey (OCHS) as an Area of Secondary Importance (ASI), and includes four of these five buildings as contributors.

Chapter III, Project Description, provides a detailed description of the new buildings proposed to be constructed within the Project area.

**Impacts to Historic Buildings.** The Project's potential impacts on the five buildings identified as potential historic resources are described below.

As noted above, the Great Western Power Company Building could be subject to one of the following three treatments as part of the proposed Project: 1) demolition; 2) partial demolition (i.e., preservation of portions of the building); and 3) full preservation (and possible reuse). Each of these actions would result in a different environmental impact. Therefore, implementation of the proposed Project would result in one of the following impacts.

Impact statements followed by a variant number (in italics) would occur only as a result of implementation of that variant. Impact statements followed by no variant number would result from implementation of the proposed Project, irrespective of which variant is ultimately implemented.

**Impact HIST-4a (*Variant 1: Demolition; Variant 2: Partial Demolition*): The proposed Project may result in full or partial demolition of the Great Western Power Company Building, which is a local historical resource. (S)**

The Great Western Power Company Substation and Steam Heat Plant is considered a historical resource. The demolition of this building, or portions of this building, located at 518-520 Thomas L. Berkley Way (20<sup>th</sup> Street), would eliminate this resource and thus constitute a significant adverse impact.

The Great Western Power Plant Building has been recorded on DPR 523 forms. In 1983 it was evaluated by the OCHS as eligible for listing on the National Register; the OCHS updated this evaluation record in 2000. It is rated "B+2+" by the OCHS, is listed in the Local Register, and is on the City's Preservation Study List. The building appears to be eligible for listing on the National Register under Criterion A and the California Register under Criterion A, for its associations with the Great Western Power Company, originally based in Oakland and, prior to its absorption by Pacific Gas & Electric Company, one of Northern California's three major early 20<sup>th</sup> century power companies. It also appears eligible for the National Register under Criterion C and the California Register under Criterion C, for its architectural significance as one of Oakland's best examples of an early 20<sup>th</sup> century power station.<sup>65</sup>

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<sup>65</sup> City of Oakland Planning Department, Oakland Cultural Resources Survey, 2000, op. cit.

Implementation of the following mitigation measure would minimize this impact as much as feasible. However, because the demolition of all or portions of a historical resource represents an irreversible change to the historical resource, this impact would remain significant and unavoidable, even after mitigation. Implementation of Variant 2 (partial demolition), would preserve portions of the Great Western Power Company Building and would fulfill many of the objectives of the following mitigation measure. Nevertheless, the implementation of Variant 2, which accomplishes more than Variant 1 in regard to the preservation of significant architectural features of the Great Western Power Company Building, would still result in a significant unavoidable impact to the building, because it may still result in material impairment. Without more specific plans about how the demolition would affect the resource, this impact remains significant and unavoidable.

**Mitigation Measure HIST-4a (*Variant 1 and 2*):** The following measures shall be implemented to preserve information about the resource for further study:

- Record the Great Western Power Company Building in accordance with the procedures of the Historical American Buildings Survey (HABS) through measured drawings, written histories, and large-format photographs;
- Prepare a history of the Great Western Power Company Building that incorporates oral history, documentary research, and architectural information;
- Prepare a brochure, regarding the building's historical association with one of three major early 20th century northern California power companies, to be made available at local libraries and museums;
- If full demolition of the building occurs, salvage architectural elements from the building, including hardware, doors, paneling, fixtures, and equipment, and incorporate these elements into new construction; and
- Curate all materials, notes, and reports at the OHR, and submit copies to the NWIC.

Even with extensive documentation, however, the demolition of the building or portions of the building would result in the loss of a historic resource that is associated with significant historical events and is an example of outstanding design and function. Therefore, the demolition or partial demolition of the building would remain a significant and unavoidable impact. (SU)

**Impact HIST-4b (*Variant 3: Preservation*): Modification and reuse of the Great Western Power Company Building could adversely affect a historical resource. (S)**

As described above, the Great Western Power Company Substation and Steam Heat Plant is rated "B+2+" by the OCHS, is listed in the Local Register, is on the City's Preservation Study List, and is considered a historical resource. Modifications of the Great Western Power Company Building, as part of adaptive reuse of the building, could adversely affect the architectural qualities that distinguish it as historically significant. Although the following mitigation measure may reduce this impact to a less-than-significant level, it cannot be determined with certainty at this time because there are no specific building plans for Block 7. Therefore, the impact remains significant and unavoidable because it is not known to what degree, if any, material impairment would occur.



**Mitigation Measure HIST-4b (Variant 3):** Any modifications to the exterior of the building that may be proposed as part of its preservation and reuse shall be developed in consultation with staff at the Planning Department and a qualified historic preservation architect to determine an appropriate treatment strategy. In the event that this measure is determined feasible and is implemented, Mitigation Measure HIST-5 shall also be implemented to ensure that development on the adjacent properties does not adversely impact the building's integrity. (SU)

**Impact HIST-5 (Variant 3): Site clearance within the Project area adjacent to the Great Western Power Company Building could adversely impact a historical resource. (S)**

If the Great Western Power Company Building is preserved as part of Variant 3, the building may be indirectly affected by the Project due to alteration of the setting of the building and its immediate surroundings. The Great Western Power Company Building is significant from an architectural perspective partly because it reflects the City Beautiful Movement in the United States, which promoted the beautification of common utilitarian structures.<sup>66</sup> One objective of the City Beautiful Movement was to focus on buildings in heavily urbanized settings so that beautification would result in the most striking aesthetic effect for the greatest number of people. The removal of the building's surroundings on the portion of Block 7 fronting Thomas L. Berkeley Way (20<sup>th</sup> Street) as part of implementation of the proposed Project would materially impair the Great Western Power Company Building's ability to convey its historical significance and association with the City Beautiful Movement. Implementation of the following mitigation measure would reduce this impact to a less-than-significant level.

**Mitigation Measure HIST-5 (Variant 3):** The following two-part mitigation measure shall be implemented:

- The building's urban setting on the portion of Block 7 fronting Thomas L. Berkeley Way (20<sup>th</sup> Street) shall be documented prior to Project implementation. At a minimum, this documentation shall include panoramic streetscape photographs and an interpretive display that shall provide an overview of the former urban context and describe how this context contributed to the building's significance. This information shall be presented in an on-site display at the preserved Great Western Power Company Building to enable a viewer to easily associate the former setting with the existing building (i.e., panoramic streetscape photographs to show the building within the former street frontage). Upon completion of this documentation, a copy of all notes, photographs, and analysis shall be archived at the OHR and submitted to the NWIC.
- The City shall ensure that the designs for new adjacent buildings are evaluated<sup>67</sup> with respect to minimizing setting impacts on the historic resource. Project buildings adjacent to the Great Western Power Company Building shall be designed in a manner that minimizes inappropriate differences in mass and scale, if feasible. For example, designs could call for adjacent buildings to step-up to the height of the tallest Project element north of 20<sup>th</sup> Street,

<sup>66</sup> City of Oakland Planning Department, Oakland Cultural Heritage Survey, 2000, 1983-85, and 1994-95, op. cit.

<sup>67</sup> National Park Service, 1983. "Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Preservation of Historic Buildings." Website: [http://www2.cr.nps.gov/tps/standguide/preserve/preserve\\_setting.htm](http://www2.cr.nps.gov/tps/standguide/preserve/preserve_setting.htm)

thereby reducing a potentially abrupt contrast between new buildings and the two-story Great Western Power Company Building. If the designs for the adjacent buildings follow the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Preservation of Historic Buildings, then the Project will have a less-than-significant impact, pursuant to CEQA §15064.5(b)(3). (LTS)

However, if it is not feasible to minimize material impairment of the resource, then the impact would remain significant and unavoidable. (SU)

**Impact HIST-6: Site clearance within the Project area could adversely impact four Potential Designated Historic Properties (PDHPs) in the Project area. (LTS)**

Four buildings identified as PDHPs are proposed for demolition within the Project area:

- *1958-60 San Pablo Avenue, Snyder-Olmstead Building*
- *1966-68 San Pablo Avenue, Olmstead Building*
- *1972 San Pablo Avenue, Muller Tailor-Rankin plumbing shop*
- *1998 San Pablo Avenue, White Cabin Lunch Company*

These four buildings currently do not meet the definition of historical resources for the purposes of CEQA. As established in the HPE, effects to a PDHP may be considered significant under CEQA if the PDHP is included in Oakland's Local Register prior to demolition (e.g., by becoming a Designated Historic Property).<sup>68</sup> Policy 3.7 of the HPE (Property Relocation Rather Than Demolition) recommends that reasonable efforts be made to relocate threatened PDHPs to an acceptable site, if feasible. The Project applicant is willing to publish advertisements in local newspapers to notify the public of the buildings' availability for relocation. Action 3.7.1 of the HPE cites public notification as one means by which the "reasonable efforts" standard may be met.

If relocation is not feasible, the demolition of these buildings would constitute an adverse impact, but such an impact would not be considered a significant impact under CEQA. As currently specified by the HPE, PDHPs do not warrant the regulatory protections that are applied to Designated Historic Properties. Implementation of the following mitigation measure would minimize this less-than-significant impact through the preservation of information for future study.

**Mitigation Measure HIST-6:** If the relocation of the PDHPs proposed for demolition on the Project site is not feasible, the buildings shall be documented at a level of detail commensurate with their local importance. At a minimum, this effort shall include photo-documentation, as well as local oral history about the past uses and occupants of the buildings. This documentation shall be planned in consultation with OCHS in order to: 1) identify those qualities that support and justify the property's local significance; and 2) efficiently record and disseminate

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<sup>68</sup> As defined in the HPE, PDHPs may be eligible for designation as Designated Historic Properties, which includes Landmarks, Preservation Districts, or Heritage Properties, a less exclusive designation. Heritage Property listings replace the Preservation Study List, which is defined by the Oakland Zoning Regulation Section 17.102.060 as "a study list of facilities under serious study . . . for possible landmark designation . . . or for other appropriate actions." For the purposes of CEQA, Policy 3.8 of the HPE states that all Designated Historic Properties are considered listings on Oakland's local register. These local register properties are considered historical resources as defined by PRC 5020.1(k).

such information in a way that most effectively offsets the loss of such buildings. At the completion of this documentation, all notes, photographs, and analysis shall be archived at the OHR, and a complete copy shall be submitted to the NWIC. (LTS)

**Impacts to Historic Districts.** The 19<sup>th</sup> and San Pablo Commercial District is not considered a historical resource under CEQA. For the purposes of CEQA, the proposed Project will not cause a significant adverse impact to the 19<sup>th</sup> and San Pablo Commercial District.

However, for the purposes of CEQA, the 19<sup>th</sup> and San Pablo Commercial District could be impacted by the proposed Project if: 1) the district is elevated to Preservation District status (a type of Designated Historic Property); and 2) the four PDHPs identified in Impact HIST-5 are demolished. However, this impact would be less than significant because the remaining majority of contributing properties would still retain enough of the district's character-defining elements to convey its historical significance. Buildings remaining after Project implementation will include the Hotel Arcade, the Hanifin Block, and the Dalziel Block. These remaining buildings include all of the district's primary contributors (the Hotel Royal, Hotel Arcade, and the Hanifin Block), which will continue to retain the district's major character defining elements that reflect turn-of-the-century commercial development in Oakland. These buildings represent styles that include Italianate, Beaux Arts-derived, and Classical Revival. They maintain the grandness of scale and ornamentation that characterize what the OCHS described as the "visually distinctive/turn-of-the-century commercial district." The retention of these distinctive buildings allows the district to continue to convey the historical significance of late 19<sup>th</sup>, early 20<sup>th</sup> century commerce in Oakland.

**Impact HIST-7: Project demolition and construction could adversely impact the setting of the 19<sup>th</sup> and San Pablo Commercial District. (S)**

If the 19<sup>th</sup> and San Pablo Commercial District receives a Preservation District designation, the Project may result in a significant impact to the district's setting. However, OCHS documentation indicates that the district's integrity of setting has been diminished by surrounding uses that "differ in use and visual coherence" from the district's contributing buildings.<sup>69</sup> Therefore, the Project's effects on the setting of the 19<sup>th</sup> and San Pablo Commercial District would not significantly impair the district's integrity.

**Mitigation Measure HIST-7:** No mitigation measure is necessary to address the less-than-significant impact. (LTS)

**Impact HIST-8: Project demolition and construction could result in a significant cumulative impact on the 19<sup>th</sup> and San Pablo Commercial District. (S)**

The demolition of the four PDHPs identified in Impact HIST-5 may result in a significant cumulative impact when considered with other projects that causing related impacts. The Thomas L. Berkley Square Project, located across Thomas L. Berkley Way (20<sup>th</sup> Street) from Project Block #1, proposes the demolition of two contributing properties of the 19<sup>th</sup> and San Pablo Commercial District (the Hotel Royal Building and the California Peanut Company Building). The impact of the Uptown Mixed-Use Project, while incremental when considered alone, will contribute to a cumulatively

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<sup>69</sup> Oakland Cultural Heritage Survey, 2000, 1983-85, and 1994-95, op. cit.

significant impact when considered with the impacts of the Thomas L. Berkley Square Project. If both projects are implemented as proposed, six of nine contributing buildings of the 19<sup>th</sup> and San Pablo Commercial District will be demolished. This would result in a significant, unavoidable cumulative impact to the 19<sup>th</sup> and San Pablo Commercial District.

**Mitigation Measure HIST-8:** The City shall inform the applicant for the Thomas L. Berkley Square Project of the potential cumulative impact prior to the implementation of the Uptown Mixed-Use Project. The City shall consult with both project applicants to establish a fair division of responsibility to fund mitigation measures to preserve information about the 19<sup>th</sup> and San Pablo Commercial District for future study. These mitigation measures shall include the following:

- Record the 19<sup>th</sup> and San Pablo Commercial District in accordance with the procedures of HABS through measured drawings, written histories, and large-format photographs;
- Prepare a history of the 19<sup>th</sup> and San Pablo Commercial District that incorporates oral history, documentary research, and architectural information;
- Prepare a brochure, regarding the district's historical association with turn-of-the-century Oakland commerce, to be made available at local libraries and museums;
- Salvage architectural elements from the buildings proposed for demolition, including hardware, doors, paneling, fixtures, and equipment, and incorporate these elements into new construction; and
- Curate all materials, notes, and reports at the OHR, and submit copies to the NWIC.

Even with extensive documentation, however, a cumulative impact will result from the demolition of 66 percent of the 19<sup>th</sup> and San Pablo Commercial District's contributing buildings. This loss of contributing buildings will materially affect the district's ability to convey its historical significance, which will result in a significant, unavoidable cumulative impact. (SU)

**Impact HIST-9: Site clearance within the Project area could adversely impact historic architectural buildings inventoried by the OCHS. (LTS)**

Sixteen buildings inventoried by the OCHS<sup>70</sup> are proposed for demolition within the Project area (see Figure 1, buildings #2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, and 21). These 16 buildings are not listed in the Local Register, do not have the potential to be listed, and do not meet any other criteria for consideration as historical resources, as defined by CEQA §21084.1.

Because these 16 buildings are not considered historical resources for the purposes of CEQA, their demolition will not result in a significant adverse effect.

**Mitigation Measure HIST-9:** No mitigation measure is necessary to address the less-than-significant impact. (LTS)

**Impact HIST-10: The construction of Project buildings could adversely impact historic architectural resources adjacent to the Project area. (LTS)**

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<sup>70</sup> Oakland Cultural Heritage Survey, 2000, 1983-85, and 1994-95, op. cit.

Several Local Register buildings are located across the streets and in areas adjacent to the Project area. These buildings include the Italianate Hanifin and Dalziel Blocks and the Classical Revival Hotel Arcade/San Pablo across San Pablo Avenue from the proposed five-story buildings in Project area Blocks 1 and 2. Local Register buildings across Telegraph Avenue from Blocks 3 and 4 of the Project area include the Oakland Floral Depot and Capwell's, both designed by architects Ashley & Evers. Located across 20<sup>th</sup> Street from Block 1 of the proposed Project are the Arts and Crafts Hotel Royal and the Beaux Arts-derivative California Peanut Company-Oakland Post Building, both listed on the Local Register. The Paramount Theater and the I. Magnin Company Building, both Local Register properties, are adjacent to Block 8.

These architectural resources listed on the Local Register generally retain their integrity of location, design, materials, workmanship, and association from their period of significance. The integrity of setting and feeling to their period of significance, however, has been compromised by subsequent contrasting development that has resulted in a varied mix of urban uses. The proposed Project, partly consisting of five-story buildings, would not result in an adverse effect to those elements that would render them eligible for the California Register. No adverse effect would occur because the integrity of setting and association of the Local Register resources has already been compromised.

Of greater effect, however, would be the construction of the 19-22 story tower on Block 7. This building would alter the viewshed of the YMCA Building and those buildings in the Cathedral Historic District across 21<sup>st</sup> Street. However, construction of the tower at this location would not alter the characteristics that define their California Register significance.<sup>71</sup>

**Mitigation Measure HIST-10:** No mitigation measure is necessary to address the less-than-significant impact. (LTS)

**Impact HIST-11: The proposed Project could impact the setting of the Fox Oakland Theater. (LTS)**

The Fox Oakland Theater is rated by the OCHS as A1+, listed on the National Register, and designated as a City Landmark.<sup>72</sup> The Fox Oakland Theater is a primary contributor to a potential Uptown Shopping/Entertainment historic district,<sup>73</sup> and the focus of numerous historic preservation activities since the mid-1970s. The proposed Project has the potential to affect this historic property.

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<sup>71</sup> The Cathedral District is noted for a range of architectural styles from 1868-1915, some of which include examples of buildings modified following the 1906 earthquake and fire in San Francisco. The district also included a distinctive church, St. Francis de Sales Cathedral, which was demolished in 1993. The YMCA Building is significant for its architectural expressiveness and composition, as well as for its association with an important community institution and a notable local architect, William Charles Hays.

<sup>72</sup> The Fox Oakland Theatre was designed by Weeks & Day and Maury Diggs and completed in 1927-28. It is a turreted and crenellated Hindu-Deco movie palace with wraparound store and office wings, clad in brown brick and exuberant polychrome tile. It is a primary contributor to a potential Uptown historic district whose themes are luxury shopping and entertainment and Art Deco architecture of the 1920s and 1930s (with the remainder of the district located on the east side of Telegraph Avenue and along Broadway from 17<sup>th</sup> to 21<sup>st</sup> Streets) (OCHS, 2000).

<sup>73</sup> City of Oakland Planning Department, Oakland Cultural Resources Survey, 2000, 1983-85, and 1994-95, op. cit.

The area around the Fox Oakland Theater has been significantly altered since it was constructed in the late 1920s. The area experienced its heyday in the following decade, when its surroundings grew to include the Paramount Theater, Capwell's, the Oakland Floral Depot Building, and a variety of commercial enterprises, none of which are over four stories in height. The tower and façade of the Fox Oakland Theater, with the Floral Depot across Telegraph Avenue and the Capwell's store up the street, dominated the uptown landscape.

Since that time, several buildings have been demolished and others have been remodeled so that they no longer reflect their period of significance. A number of parking structures and lots have also been constructed. There have, however, been no multi-story buildings constructed within the Project area, but many have been developed nearby, and those have significantly altered the skyline. The theater retains its integrity of location, design, materials, workmanship, and feeling to a remarkable degree, although its integrity of setting and association has been compromised.<sup>74</sup>

Although the proposed Project would alter the immediate surroundings of the Fox Oakland Theater, the new construction would represent a less-than-significant effect because of the previous compromises in setting and association.

Mitigation Measure HIST-11: No mitigation measure is necessary to address this less-than-significant impact. (LTS)

**Impact HIST-12: The proposed Project could impact the operations of the Fox Oakland Theater and, therefore, indirectly impact its architectural qualities. (LTS)**

The future viability of the Fox Oakland Theater as a performing arts facility that retains the architectural integrity of its interior depends upon many elements; providing sufficient space behind the theater to accommodate a loading area and other possible uses is one. The Friends of the Fox Theater have expressed concern that if insufficient space is provided between the theater and Project elements, the ability of the Fox Oakland to operate as a viable performance arts venue may be affected. Were this limitation to lead to a different use of the Fox Oakland Theater that requires architectural modification or interior alterations, or to disinvestment and gradual physical decline, such change could impact the building's character-defining elements and could result in a "substantial adverse change" in the theater's ability to convey its historical significance.

The City's existing regulations require a separate and thorough analysis of any physical modifications to designated landmarks. Such modifications are not being proposed as part of this project. Therefore, sufficient space (50 feet) has been reserved behind the Fox Oakland Theater so that it can continue to function as a performing arts venue. Volume III of the Fox Theater Master Plan presents five alternatives that provide for rehabilitation of the theater. Each alternative provides a reserve space of approximately 40 feet behind the building.<sup>75</sup> Thus, the 50 feet of reserve space proposed as part of the Project would be sufficient to allow the building to re-establish operation as a theater.

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<sup>74</sup> Although no criteria were noted in the nomination, the Fox Oakland was determined eligible for the National Register, evidently under Criterion A, for its association with the film industry and as the largest movie theatre in Oakland at the time, and Criterion C, for its Art Deco-Hindu architectural significance, and as one of the last remaining Art Deco buildings in downtown Oakland.

<sup>75</sup> Hardy Holzman Pfeiffer Associates, LLP, 2001. *Fox Theater Master Plan*. May 30.

Mitigation Measure HIST-12: No mitigation measures is necessary for this less-than-significant impact. (LTS)

**(3) Streetscape Improvements.** Significant improvements and modifications to the area's streetscape are proposed as part of the Project. These improvements could adversely impact historical resources as described below.

**Impact HIST-13: The enhancement of streetscape features and lighting on streets fronting the Project area may impact historical resources, including elements of the Uptown Shopping/Entertainment Historic District and the Fox Oakland Theater. (S)**

Mitigation Measure HIST-13: Prior to Project initiation, the plan for the enhancement of street features and lighting on Telegraph Avenue shall be reviewed by planning staff to ensure that it conforms to the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Preservation of Historic Buildings*.<sup>76</sup> Conformance with these guidelines will ensure that these improvements are compatible with nearby historical resources, and will mitigate potential Project effects to less-than-significant levels.<sup>77</sup> (LTS)

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<sup>76</sup> National Park Service, 1983. "Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Preservation of Historic Buildings," with an emphasis on site and setting. Website: [http://www2.cr.nps.gov/tps/standguide/preserve/preserve\\_site.htm](http://www2.cr.nps.gov/tps/standguide/preserve/preserve_site.htm) and [http://www2.cr.nps.gov/tps/standguide/preserve/preserve\\_setting.htm](http://www2.cr.nps.gov/tps/standguide/preserve/preserve_setting.htm).

<sup>77</sup> CEQA §15064.5(b)(3).

## J. AESTHETIC RESOURCES

This section evaluates the effects of the Uptown Mixed Use Project on visual and aesthetic resources in the vicinity of the Project site. This analysis also considers the proposed Project's consistency with applicable visual resource-related policies.

This section is based on: 1) field surveys of the Project site that were conducted in May and June 2003; 2) a review of data provided by the City and Project applicant, including aerial photographs, site plans, and planning documents related to Downtown Oakland; and 3) visual simulations that show "before" and "after" representations of the proposed Project.<sup>1</sup> Visual simulations, which are based on schematic drawings of the proposed Project, were prepared for six representative public vantage points in the vicinity of the Project site. The visual simulations are intended to convey a realistic impression of the Project in terms of proposed building location, scale and massing. However, because the architectural details of the proposed structures have not been finalized, the simulations do not portray the actual architectural design of the proposed Project.

### 1. Setting

The following section includes a description of the visual quality of the Project site and its surroundings, and views in the vicinity of the site.

**a. Local Context.** Physical development in the Uptown District is characterized by low- to medium-rise attached buildings with little or no setback from the street. Building heights generally range from one story to 11 stories. At its peak in the 1920s and 1930s, the Uptown District was a thriving commercial neighborhood with a concentration of luxury shopping and entertainment uses. The visual remnants of this era include the Fox and the Paramount Theaters, two landmark 1920s-era movie palaces, and the Capwells (now Sears) and I. Magnin's department stores. During the years after World War II, the Uptown District, along with other portions of Downtown Oakland, experienced a period of disinvestment whose manifestations included a decline in population and commercial revenue. Existing land uses within the Project site include a predominance of parking lots and vacant buildings that do not foster an active urban pedestrian environment. The existing development pattern in the District, which is less dense and contains a higher percentage of underutilized properties than surrounding neighborhoods, also contributes to a sense of discontinuity between the site and surrounding areas.

**b. Visual Character of the Site.** Please refer to Section IV.A, Land Use, for a description of the physical characteristics of the blocks within the Project site and Section IV.I, Historic Architectural, Archaeological and Paleontological Resources, for a description of the historic buildings within the Project site. The Project site comprises large amounts of surface parking as well as a mixture of commercial buildings that range in height from one to four stories. The relatively flat urbanized site includes little vegetation with the exception of trees located along several streets, and landscape improvements within the San Pablo Avenue median.

Figures IV.J-1a through IV.J-1f illustrate the visual character of the Project site. Because much of the Project site is dominated by surface parking and vacant lots, the visual character of the site is defined in large part by the buildings around it. High-visibility buildings that frame the Project site include

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<sup>1</sup> Environmental Vision, 2003. *Conceptual Visual Simulations*. July 21.



the Paramount Theater and Sears Department Store to the east (see Figure IV.J-1a), the Fox Oakland Theater immediately to the east of Block 6 (see Figure IV.J-1b), Downtown skyscrapers to the south (see Figure IV.J-1f), the senior residential complex to the west of Block 1, and the multi-story YMCA and apartment complex on the north side of 21<sup>st</sup> Street.

The Great Western Power Plant (formerly Navlet's Florist and Nursery), with its associated smoke-stack, is a major landmark within the Project site, and dominates views of the northern portion of the Project site (see Figure IV.J-1b). Views along Thomas L. Berkley Way (20<sup>th</sup> Street) and San Pablo Avenue are typified by one and four-story street-front mixed use buildings that generally appear to be smaller in scale than surrounding buildings (see Figure IV.J-1b). The western and northern portions of the Project site have a decidedly more commercial visual character than the south and east portions of the site, on which parking uses predominate.

**c. Views From the Vicinity of the Project Site.** The Project site is visible from a number of public view corridors and vantage points in Downtown Oakland. The site is not visible in its entirety from a single, ground level vantage point because of its large size (approximately 15 acres), flat topography, and surrounding high-rise buildings. Telegraph Avenue and San Pablo Avenue, two major urban thoroughfares, afford close and medium-range views of portions of the site. The following discussion provides a brief description of public corridors with views of the Project site. None of the public streets in the near vicinity of the Project site have been designated as State or local scenic routes. Figures IV.J-1a through IV.J-1f present photographs of the Project site taken from representative public vantage points. Figure IV.J-2 shows the location of each viewpoint.

**(1) Views From the East.** Telegraph Avenue, a major north-south arterial, borders the Project site on the east. Figures IV.J-1a and IV.J-1b show views of the Project site from Telegraph Avenue. As depicted in these photos, the existing structures located along Telegraph Avenue reflect a range of building scales and architectural character. Southwest views from Telegraph Avenue near Grand Avenue include a tall three-story stone church built in the early 1900s and the seven-story brick YMCA building located at the corner of 22<sup>nd</sup> Street (see Figure IV.J-1b). These views also encompass the one-story buildings and surface parking located on the Project site, as well as the historic art deco-style Fox Theater; modern high-rise buildings are visible in the background. Views along Broadway include a variety of older and modern buildings ranging from tall single story to high-rise; vintage light fixtures and deciduous canopy trees that line the street (see Figure IV.J-1c) also define visual character east of the Project site.

**(2) Views From the North.** A mixture of building types and land uses, including a variety of residences, are located to the north of the Project site. Views to the northwest and east from 21<sup>st</sup> Street near Telegraph Avenue include small scale, Victorian-era residences in addition to the high-rise YMCA and an apartment building to the west. Views into the Project site from the north are dominated by the Pacific Gas and Electric Substation (see Figure IV.J-1d) and the commercial uses along the north side of Thomas L. Berkley Way (20<sup>th</sup> Street).

**(3) Views From the West.** San Pablo Avenue is a major north-south thoroughfare bordering a portion of the Project site on the west. Views along the San Pablo Avenue corridor include low to moderate-rise mixed use buildings in the vicinity of the Project site and taller commercial buildings and parking garages in the vicinity of the Civic Center (see Figure IV.J-1d).

Figure IV.J-1a: Visual Character Photographs

8x11 B&W

Figure IV.J-1b: Visual Character Photographs

8x11 B&W

Figure IV.J-1c: Visual Character Photographs

8x11 B&W

Figure IV.J-1d: Visual Character Photographs

8x11 B&W

Figure IV.J-1e: Visual Character Photographs

8x11 B&W

Figure IV.J-1f: Visual Character Photographs

8x11 B&W

Figure IV.J-2: Photo Viewpoint Locations

8x11 B&W



**(4) Views From the South.** The Civic Center district, centered around the historic City Hall building located on Frank Ogawa Plaza, is located south of the Project site. This district is characterized by a range of building heights and mix of modern and older architectural styles (see Figure IV.J-1f). The area surrounding Frank Ogawa Plaza displays a coherent architectural character and strong pedestrian scale (see Figure IV.J-1f).

## 2. Applicable Policies

The main documents that are applicable to aesthetics and visual quality within and around the Project site are the Land Use and Transportation Element and the Open Space, Conservation, and Recreation Element of the City of Oakland General Plan, and the Oakland Planning Code. Applicable visual resources policies are listed below.

**a. Land Use and Transportation Element.** The Land Use and Transportation Element (LUTE) is intended to guide the development of “clean and attractive neighborhoods rich in character and diversity, each with its own distinctive identity, yet well-integrated into a cohesive urban fabric.”

Objective D2. Enhance the visual quality of downtown by preserving and improving existing housing stock and encouraging new high quality development.

Policy D2.1. Downtown development should be visually interesting, harmonize with its surroundings, respect and enhance important views in and out of the downtown, and contribute to an attractive skyline.

Objective D3. Create a pedestrian-friendly downtown.

Policy D3.1. Pedestrian-friendly commercial areas should be promoted.

Policy D3.2. New parking facilities for cars and bicycles should be incorporated into the design of any project in a manner that encourages and promotes safe pedestrian activity.

Objective D5. Enhance the safety and perception of safety downtown at all hours.

**b. Open Space, Conservation, and Recreation Element.** One of the major components of the Open Space, Conservation, and Recreation Element (OSCAR) is the protection of visual and open space resources in Oakland.

Policy OS-10.1. View Protection. Protect the character of existing scenic views in Oakland, paying particular attention to a) views of the Oakland Hills from the flatlands; b) views of downtown and lake Merritt; c) views of the shoreline; and d) panoramic views from hillside locations.

Policy OS-10.3. Underutilized Visual Resources. Enhance Oakland’s underutilized visual resources including the waterfront, creeks, San Leandro Bay, architecturally significant buildings or landmarks, and major thoroughfares.

Policy OS-11.1. Access to Downtown Open Space. Provide better access to attractive, sunlit open spaces for persons working or living in downtown Oakland. The development of rooftop gardens is encouraged, especially on parking garages.

Policy OS-11.2. New Civic Open Space. Create new civic open spaces at BART Stations, in neighborhood commercial areas, on parking garages, and in other areas where high-intensity redevelopment is proposed.

Policy OS-11.3. Public Art Requirements. Continue to require public art as part of new buildings or facilities. Consider expanding the requirement.

c. **Oakland Planning Code.** The design of new projects in Oakland is subject to the following performance criteria that are utilized as part of the City's design review process.

Section 17.136.070. Design Review Criteria. Except as different criteria are prescribed elsewhere in the zoning regulations, design review approval may be granted only if the proposal conforms to all of the following criteria, as well as to any and all other applicable design review criteria:

A. For Residential Facilities

1. That the proposed design will create a building or set of buildings that are well related to the surrounding area in their setting, scale, bulk, height, materials, and textures;
2. That the proposed design will protect, preserve, or enhance desirable neighborhood characteristics;
3. That the proposed design will be sensitive to the topography and landscape;
4. That, if situated on a hill, the design and massing of the proposed building relates to the grade of the hill; and
5. That the proposed design conforms in all significant respects with the Oakland Comprehensive Plan and with any applicable district plan or development control map which has been adopted by the City Council.

B. For Nonresidential Facilities and Signs

1. That the proposal will help achieve or maintain a group of facilities which are well related to one another and which, when taken together, will result in a well-composed design, with consideration given to site, landscape, bulk, height, arrangement, texture, materials, colors, and appurtenances; the relation of these factors to other facilities in the vicinity; and the relation of the proposal to the total setting as seen from key points in the surrounding area. Only elements of design which have some significant relationship to outside appearance shall be considered, except as otherwise provided in Section 17.102.030;

2. That the proposed design will be of a quality and character which harmonizes with, and serves to protect the value of, private and public investments in the area;
3. That the proposed design conforms in all significant respects with the Oakland Comprehensive Plan and with any applicable district plan or development control map which has been adopted by the City Council.

## 2. Impacts and Mitigation Measures

This section analyzes impacts related to aesthetic resources that could result from implementation of the proposed Project. The subsection begins with the criteria of significance, which establish the thresholds for determining whether an impact is significant. The latter part of this section presents the impacts associated with the proposed Project. Mitigation measures are recommended, as appropriate. Shadow and shade-related impacts are discussed in Section IV.L., Shade and Shadow.

**a. Criteria of Significance.** Implementation of the proposed Project would have a significant effect on aesthetic resources if it would:

- Have a substantial adverse effect on a scenic vista;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- Substantially degrade the existing visual character or quality of the site and its surroundings;
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area; or
- Require an exception (variance) to the policies and regulations in the General Plan, Planning Code, or Uniform Building Code, and the exception causes a fundamental conflict with policies and regulations in the General Plan, Planning Code, and Uniform Building Code addressing the provision of adequate light related to appropriate uses.

**b. Less-than-Significant Aesthetic Resources Impacts.** The following discussion describes the less-than-significant impacts to aesthetic resources that would result from implementation of the proposed Project.

**(1) Scenic Vistas.** The Project site is generally flat and contains views of Downtown Oakland and surrounding high-rise buildings. Views to the East Bay Hills from the Project site and surrounding public viewpoints are limited by high-rise buildings east and north of the Project site. No views of San Francisco Bay are available from the Project site. Although views from the site extend to Downtown Oakland and surrounding urban development, these views are not identified as vistas or resources in the General Plan, or by regulatory agencies with jurisdiction over the Project site

**(2) Visual Character.** Because of the predominance of surface and vacant lots within the Project site, the site has an empty visual character that contrasts with the more active commercial districts to the east of the Project site along Telegraph Avenue and Broadway. The perception that the site is largely vacant, coupled with the perception that the Uptown District is unsafe, have

combined to result in a lack of pedestrian activity, especially after daytime working hours. The lack of pedestrian activity has adversely impacted the aesthetic character of the Project site.

Implementation of the proposed Project would result in the development of mixed uses within the Project site. Proposed buildings are of a scale and form that are similar to buildings in more vibrant urban neighborhoods adjacent to the Uptown District. The proposed Project would develop parcels within the Project site that are currently vacant or occupied by surface parking and would introduce a permanent residential population. This resident and employee population would increase activity within and around the Project site, and would increase the visual appeal of this portion of the Uptown District. In addition, proposed streetscape improvements, and development of the 25,000 square foot park would enhance visual quality within the Project site, which contains few “soft” landscape elements.

**(3) Aesthetic Resources Policies.** The proposed Project is generally consistent with applicable visual resources policies in the General Plan. The proposed Project would result in the development of a mixed use Project on an infill site that is currently characterized by surface parking and vacant lots, and underutilized buildings. By creating a more unified streetscape, without gaps created by parking lots between buildings, the proposed Project would result in a more visually comfortable pedestrian environment than currently exists within the Project site.

The proposed buildings, which would range from four to 19 stories, would be similar in height to other buildings in Downtown Oakland south of the Project site. The consistency of the proposed Project with policies protecting historic architectural resources is discussed in Section IV.I, Historic Architectural, Archaeological and Paleontological Resources.

The proposed Project would undergo design review prior to final Project approval; during this time, the Project design could be subject to refinement to ensure compatibility with the Design Review Criteria listed earlier in this section. Based on preliminary plans, it is anticipated that there would be no major conflicts between the proposed design of the Project and the Design Review Criteria. Design of the proposed Project is further addressed in Impact AES-1, below. In addition, it is anticipated that adequate lighting would be developed within the Project site. Refer to Impact AES-2, below, for a discussion of adverse Project-related impacts related to lighting.

**c. Significant Aesthetic Resources Impacts.** The following discussion describes significant impacts to aesthetic resources that would result from implementation of the proposed Project.

**Impact AES-1: The proposed Project would alter the intrinsic architectural character of the Project site and its surroundings. (S)**

The changes in visual character of the site as seen from six key public viewpoints are shown in Figures IV.J-3 through IV.J-8. As shown in these simulations, the Project would represent a substantial increase in the amount of visible building mass and street frontage seen on the site. The approximate amount of proposed building street frontage is summarized in Table IV.J-1.

The proposed Project would be highly visible from some locations along public streets and view corridors within the downtown. Visual simulations showing the proposed Project’s scale, massing and

conceptual appearance as seen from six representative public viewing locations are presented as Figures IV.J-3 through IV.J-8.

Figures IV.J-3 and IV.J-4 present “before” and “after” views of the Project site from locations along Telegraph Avenue. As shown in the Figure IV.J-3 simulation, when looking

southeast from Telegraph Avenue near 22<sup>nd</sup> Street, the proposed 19-story building located on Block 7 would appear prominently in the foreground. In relationship to the nearby seven-story brick YMCA and three-story stone church buildings, the height of the new tower could appear somewhat incongruous or overbearing. Beyond this new highrise, the proposed 12-story building located on Block 3, and the five-story building on Block 4 would appear to step down toward the Fox Theater, demarcated by the red vertical marquis sign, seen in the distance. As seen from this Telegraph Avenue vantage point, the proposed Project would not substantially block views of the Fox Theater.

As seen from Telegraph Avenue near 17<sup>th</sup> Street, the five-story building on Block 4 would be seen beyond the Fox Theater which appears prominently in the foreground. New development on Blocks 3 and 7 would step up to the north, away from Fox Theater. The proposed buildings on Blocks 3, 4, and 7 would contribute to a more continuous streetwall along the west side of Telegraph Avenue. In this respect, the proposed Project would strengthen urban streetscape character and the pedestrian environment along Telegraph Avenue in the Project vicinity. The height of the Block 7 proposed tower would be noticeably taller than surrounding buildings and could appear somewhat out of scale in relationship to the heights of nearby existing and proposed buildings.

Figure IV.J-5 presents a “before” and “after” view of the Project site as seen from Thomas L. Berkley Way (20<sup>th</sup> Street) near Franklin Street. The simulation also shows the Thomas L. Berkley Square Mixed Use Project, which would be seen in the distance, immediately to the right of the Sears building. From here, the proposed Project would introduce a new prominent highrise building to the west of Broadway, on Block 7. As shown in the simulation, the new building would appear as a backdrop to the historic, art deco-era Magnin’s building. The new tower would obstruct the view of the Great Western Power Plant smokestack which is currently available from this location.

Figures IV.J-6 and IV.J-7 present “before” and “after” views of the proposed Project site from locations along San Pablo Avenue. Both simulations illustrate the appearance of the proposed Project on Blocks 1, 2, and 5. The Figure IV.J-7 simulation, a view looking east from San Pablo Avenue at Castro Street, shows the Thomas L. Berkley Square Mixed Use Project in the foreground on the left side of the image. As shown in the simulations, the proposed buildings on Blocks 1, 2 and 5 would create a more continuous streetwall along the east side of San Pablo Avenue. In this respect the Project would strengthen urban streetscape character and the pedestrian environment within the

**Table IV.J-1: Proposed Building Street Frontage (Approximate)<sup>a</sup>**

	Block 1 (Feet)	Block 2 (Feet)	Block 3 (Feet)	Block 4 (Feet)	Block 5 (Feet)	Block 6 (Feet)	Block 7 (Feet)
Telegraph Avenue			145	170			195
San Pablo Avenue	120	150			225		
21 <sup>st</sup> Street							400
TLB Way (20 <sup>th</sup> Street) <sup>b</sup>	330		250				240
William Street	330	265	250	400			
19 <sup>th</sup> Street		220		400	200	90	
18 <sup>th</sup> Street					200	90	
<b>Total Frontage</b>	<b>780</b>	<b>635</b>	<b>645</b>	<b>970</b>	<b>625</b>	<b>180</b>	<b>835</b>

<sup>a</sup> Does not include the Sears Automotive Center replacement to be located on Block 8 or Block 9.

<sup>b</sup> TLB Way = Thomas L. Berkley Way.

Source: Environmental Vision, 2003.

Figure IV.J-3: Conceptual Visual Simulations

COLOR

back of Figure IV.J-3

Figure IV.J-4: Conceptual Visual Simulations

COLOR



back of Figure IV.J-4

Figure IV.J-5: Conceptual Visual Simulations

COLOR

back of Figure IV.J-5

Figure IV.J-6: Conceptual Visual Simulations

COLOR

back of Figure IV.J-6

Figure IV.J-7: Conceptual Visual Simulations

COLOR

back of Figure IV.J-7

Figure IV.J-8: Conceptual Visual Simulations

COLOR



back of Figure IV.J-8

Project vicinity. The height of the proposed Block 5 tower would be noticeably taller than surrounding buildings and could appear somewhat out of scale in relationship to the heights of nearby existing and proposed buildings.

Figure IV.J-8, a) "before" and "after" view of the Project site from Frank Ogawa Plaza, shows the proposed residential tower on Block 5. As seen from this location, the Block 5 structure would partially enclose views to the north seen from Frank Ogawa Plaza. Views toward the new building would encompass the open plaza area and would be framed by existing buildings that adjoin the plaza. The Project design was still in the development stages at the time this analysis was completed; as a result, details of the building's articulation were not available. However, in order to ensure the final design does not result in significant visual impacts, the five-part mitigation measure set forth below shall be implemented.

**Mitigation Measure AES-1:** The following measures shall be incorporated into the final Project design:

- Create streetscape vitality and enhance the pedestrian experience through detailed treatment of building facades, including entryways, fenestration, and signage, and through the use of carefully chosen building materials, texture, and color.
- Design of building facades shall include sufficient articulation and detail to avoid the appearance of blank walls or box-like forms.
- Exterior materials utilized in construction of new buildings, as well as site and landscape improvements, shall be high quality and shall be selected for both their enduring aesthetic quality and for their long term durability.
- Ensure that the architectural and landscape treatment of the proposed parking structure promotes human scale and pedestrian activity.
- Detailed designs for the public park shall be developed. The design shall emphasize the public nature of the space and pedestrian comfort. The plaza design shall consider sun/shade patterns during mid-day hours throughout the year. The plaza design shall be sensitively integrated with the streetscape. (LTS)

**Impact AES-2: The proposed development would provide additional sources of nighttime lighting in the downtown. (S)**

The proposed Project would include new sources of light in Downtown Oakland. In addition, during daylight hours pedestrians and motorists could experience some degree of glare due to light reflecting off the new building facades.

Exterior lighting would be provided at entrances for each of the proposed new buildings. Lighting would also be installed within the public park area. In addition, the Project would introduce nighttime lighting associated with approximately 2,000 new residences. Because the Project includes uses which are similar to those currently found in Downtown, it is anticipated that the lighting proposed as part of the Project would generally be compatible with lighting currently located in the vicinity of the Project site. It is also anticipated that Project-related lighting would not substantially adversely alter the nighttime visual character of the downtown.

The specific layout of the proposed exterior lighting design for the development including fixture types would be subject to the City's design review process. In order to reduce potential light and glare-related impacts to a less-than-significant level, the following two-part mitigation measure shall be incorporated during final Project design.

Mitigation Measure AES-2a: The specific reflective properties of Project building materials shall be assessed by the City during Design Review as part of the Project's Development Standards, Procedures and Guidelines. Design review shall ensure that the use of reflective exterior materials is minimized and that proposed reflective material would not create additional daytime or nighttime glare.

Mitigation Measure AES-2b: Specific lighting proposals shall be reviewed and approved by the City prior to installation. This review shall ensure that any outdoor night lighting for the Project is down shielded and would not create additional nighttime glare. (LTS)

## K. WIND

This section evaluates the effects of the Uptown Mixed Use Project on wind patterns in the Uptown District. Potential wind-related impacts that would result from implementation of the proposed Project are identified, and mitigation measures are recommended, as appropriate. This section is adapted from a Wind Impact Evaluation published on July 7, 2003.<sup>1</sup>

### 1. Setting

The following section describes the conditions that affect wind in urbanized settings, and existing wind patterns and characteristics in Oakland and the vicinity of the Project site.

**a. Building Aerodynamics.** Ground-level wind acceleration in urban areas is heavily influenced by building exposure, massing, and orientation. Exposure is a measure of the extent that a building extends above surrounding structures into the wind stream. A building that is surrounded by taller buildings is not likely to substantially accelerate wind speeds at ground level; however, a small building could cause acceleration if it is freestanding and exposed.

Massing, which is the physical bulk of a structure, determines how much wind is intercepted by a given structure and whether building-generated wind accelerations occur above-ground or at ground level. In general, slab-shaped buildings (i.e., buildings with long, flat fronts or sides) have the greatest potential to increase wind acceleration. Buildings with unusual shapes, rounded faces, or substantial set-backs tend to have a lesser effect on wind speed. In general, buildings with more complex massing typically have a smaller effect on ground-level wind acceleration. In addition, buildings with intricate articulation, or buildings that are surrounded by street furniture, large-scale artwork, or landscaping, can reduce overall wind speeds.

Building orientation (i.e., the direction a building faces) determines how much wind a structure intercepts. In general, a building that is oriented with its wide access against the prevailing wind direction will have a greater impact on ground-level winds than a building oriented with its long access parallel to the prevailing wind direction.

**b. Wind Characteristics of the Project Site and Alameda/Oakland.** The Project site contains a mixture of land uses, including surface parking, multi-story parking structures and one to three-story buildings. Taller buildings surround the Project site on the south and east; building heights to the west and north of the Project site are similar to existing building heights within the Project site.

The former Alameda Naval Air Station, which is located approximately 4 miles southwest of the Project site, provides the closest source of long-term wind data. Wind data collected over the last 23 years show that westerly winds are the most frequent and strongest winds during all seasons. Westerly winds are most common during the spring and summer months when sea breezes predominate. Southeasterly winds, which are the second most common directional winds at the Alameda Naval Air Station, are typically associated with winter storms. While southeasterly winds are not associated with the highest average wind speed, they are likely to produce the *highest* wind speed in a given year.

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<sup>1</sup> Ballanti, Donald, 2003. *Wind Impact Evaluation for the Forest City Uptown Mixed-Use Project, Oakland*. July 7.

Calm winds occur approximately 10 percent of the time. The average annual wind speed at Alameda Naval Air Station is approximately 8.6 miles an hour; because downtown Oakland is located inland from the San Francisco Bay shoreline and is protected from Bay winds by structures, average wind speed at the Project site is less than the average wind speed at Alameda Naval Air Station.

## 2. Impacts and Mitigation Measures

This subsection analyzes impacts related to wind that could result from implementation of the proposed Project. The subsection begins with the criteria of significance, which establish the thresholds for determining whether an impact is significant. The latter part of this subsection presents the impacts associated with the proposed Project.

**a. Criteria of Significance.** CEQA does not contain specific thresholds of significance for the evaluation of wind-related impacts. In addition, neither the State nor the City of Oakland have established standards or criteria for the evaluation of wind impacts.<sup>2</sup> Based on pedestrian comfort considerations, implementation of the proposed Project would result in a significant wind-related impact if:

- It results in the occurrence at least one time per year of winds greater than 36 miles per hour (mph).

**b. Less-than-Significant Wind Impacts.** Blocks 1, 2, 4, and 6 would contain a series of five-story buildings which would be approximately 65 feet high. Buildings within these blocks would be arranged around courtyards, which are generally oriented along northwest/southeast axes. No buildings within these blocks would have continuous building faces oriented perpendicular to west and southeast winds. In addition, because buildings on these blocks would be partially sheltered by structures surrounding the Project site, they are not anticipated to generate substantial adverse wind impacts.

Block 3 would contain a 12-story building that would be approximately 156 feet high (an intermediate height in relation to the proposed five-story buildings to the south and west, and the proposed 19-story building to the north). The long axis of the Block 3 building would be aligned with Telegraph Avenue, and would not be exposed to prevailing west or southeasterly winds. Therefore, the proposed Block 3 building is not anticipated to result in significant adverse wind effects. Block 8 or Block 9 is proposed as the relocation site for the Sears Auto Center. The relocated Sears Auto Center would be a one-story building and would not result in adverse wind effects. In addition, the proposed three-story building on Block 7 is similar in height to surrounding buildings and would be immediately adjacent to a 19-story building. Therefore, the proposed Block 3 three-story building is not anticipated to significantly increase wind speeds within or in the vicinity of the Project site.

The proposed courtyards, public park, and north/south streets would be sheltered from prevailing winds by low-rise portions of the Project. Landscaping proposed for these areas would also mitigate the adverse effects of high winds.

**c. Significant Wind Impacts.** The following discussion describes one significant wind impact associated with the proposed Project:

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<sup>2</sup> This criterion of significance is maintained by the City of San Francisco for significant wind impacts, and is similarly appropriate for the City of Oakland.

**Impact WIND-1: Construction of 19-story buildings on Blocks 5 and 7 could result in wind speeds of over 36 mph. (S)**

The 19-story building proposed for Block 5 would be oriented along a north/northwest, south/southeast alignment. Because the long face of the building would be exposed to prevailing winds, the building could substantially increase wind speeds along San Pablo Avenue and along its north and south side. Similarly, the 19-story building proposed on Block 7 would be oriented along a north/northeast, south/southwest alignment, and would intercept westerly winds. Therefore, the building could substantially increase wind speeds along its west, north, and south sides. Wind speeds could be reduced depending upon building design and associated landscaping.

Implementation of the following two-part mitigation measure would reduce the proposed Project's wind-associated impacts to a less-than-significant level.

**Mitigation Measure WIND-1a:** The final design of the high-rise buildings on Blocks 5 and 7 shall be in accordance with one or more of the following design guidelines. In addition, as part of the design review process for these high-rise buildings, a qualified wind consultant shall ensure the Project is designed in accordance with these guidelines:

- Align long axis of each building along a northwest-southeast alignment to reduce exposure of the wide faces of the building to westerly or southeasterly winds.
- West or southeasterly building faces shall be articulated and modulated through the use of architectural devices such as surface articulation; variation; variation of planes, wall surfaces, and heights; and the placement of setbacks and other similar features.
- Utilize properly-located landscaping that mitigates high winds. Porous materials (e.g., vegetation, hedges, screens, latticework, perforated metal), which offer superior wind shelter compared to solid surfaces, shall be used.
- Avoid narrow gaps between buildings where westerly or southeasterly winds could be accelerated; or
- Avoid breezeways or notches at the upwind corners of the building.

**Mitigation Measure WIND-1b:** A qualified wind consultant shall review and evaluate the final design of the high-rise buildings on Blocks 5 and 7, and shall determine whether incorporated design features would reduce wind impacts to a less-than-significant level. If the wind consultant determines that these design features would reduce wind impacts to a less-than-significant level (i.e., less than 36 mph), no further mitigation would be required. If the wind consultant determines that significant adverse wind impacts could occur, models of the proposed Blocks 5 and 7 buildings shall be subject to wind tunnel testing to determine if the buildings would result in uncomfortable or hazardous winds. The wind consultant shall work with the Project architect to develop further building design modifications that would reduce wind impacts to a less-than-significant level (i.e., standard of less than 36 mph). (LTS)



## L. SHADE AND SHADOW

This section evaluates the effects of the Uptown Mixed Use Project on shade and shadow in the vicinity of the Project site. This analysis is adapted from shadow pattern simulations prepared for the proposed Project by Environmental Vision.<sup>1</sup> Shadow pattern simulations were prepared for the following dates: June 21 (the summer solstice, when the sun is at its highest point in the sky); December 21 (the winter solstice, when the sun is at the lowest point in the sky); and March 21 and September 21 (the spring and fall equinoxes, respectively, when day and night are of approximately equal length). Simulations were prepared for three times during each day: 9:00 a.m.; 12:00 p.m. (noon); and 3:00 p.m.

### 1. Setting

The following discussion describes existing shadow conditions within the Project site on the four dates for which shadow pattern simulations were prepared. The shadow simulations assume sunny conditions, and do not take into account overcast or foggy conditions, which are common during the summer and during stormy periods in the winter. Shadow generation within the Project site is generally limited by the presence of surface parking lots and the lack of buildings exceeding three stories.

*June 21.* On June 21, shadows cast by buildings within the Project site are typically limited to the confines of the site. During the morning (9:00 a.m.) and afternoon (3:00 p.m.), shadows from buildings within the Project site extend slightly into San Pablo Avenue and Telegraph Avenue, respectively (see Figure IV.L-1 and Figure IV.L-9). The Pacific Gas and Electric (PG&E) Substation, adjacent to Thomas L. Berkley Way (20<sup>th</sup> Street) and 21<sup>st</sup> Street, is partially covered by shadow during the morning hours. Shadow coverage of areas surrounding the Project site by buildings within the Project site is minimal during the noon hour on June 21 (see Figure IV.L-6).

*December 21.* On December 21, the shortest day of the year, shadows are widespread within and around the Project site during the morning (9:00 a.m.) and late afternoon (3:00 p.m.) hours (see Figure IV.L-2 and Figure IV.L-10). At these times, the sun is seen near the horizon and areas without shadows are typically those that are immediately adjacent to open space areas and surface parking lots. During noon on December 21, the sun shines above from a southerly direction; during this time, buildings within the Project site cast shadows to the north. The most prominent shadows generated by buildings within the Project site are associated with the multi-story parking garage between William Street and 19<sup>th</sup> Street, and the commercial buildings along the south side of Thomas L. Berkley Way (20<sup>th</sup> Street) and the east side of San Pablo Avenue (see Figure IV.L-6). The building most affected by these shadows is the PG&E Substation.

*March 21/September 21.* Shadows generated by buildings are similar on March 21 and September 21, when the sun shines at a moderate angle at noon. Shadows generated on March 21 in the morning extend to the northwest, compared to morning shadows on September 21, which extend only slightly to the northwest. However, the extent of shadows on these two dates is similar. Morning shadows on these dates generated from buildings within the Project site are

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<sup>1</sup> Environmental Vision, 2003. *Project Shadow Patterns, Uptown Mixed Use Project EIR*. July.



Figure IV.L-1: Project Shadow Patterns

8x11 B&W

Figure IV.L-2: Project Shadow Patterns

8x11 B&W

Figure IV.L-3: Project Shadow Patterns

8x11 B&W

Figure IV.L-4: Project Shadow Patterns

8x11 B&W

Figure IV.L-5: Project Shadow Patterns

8x11 B&W

Figure IV.L-6: Project Shadow Patterns

8x11 B&W

Figure IV.L-7: Project Shadow Patterns

8x11 B&W

Figure IV.L-8: Project Shadow Patterns

8x11 B&W



Figure IV.L-9: Project Shadow Patterns

8x11 B&W

Figure IV.L-10: Project Shadow Patterns

8x11 B&W

Figure IV.L-11: Project Shadow Patterns

8x11 B&W

Figure IV.L-12: Project Shadow Patterns

8x11 B&W

generally confined to the Project site itself; some shadow spillover occurs onto the PG&E Substation, San Pablo Avenue, and Thomas L. Berkley Way (20<sup>th</sup> Street) (see Figure IV.L-2 and Figure IV.L-3). Shadows produced by buildings within the Project site are relatively constrained during the noon hour on March 21 and September 21 (see Figure IV.L-6 and Figure IV.L-8). Shadows produced around 3:00 p.m. on these days extend into 22<sup>nd</sup> Street, Telegraph Avenue, 21<sup>st</sup> Street and Thomas L. Berkley Way (20<sup>th</sup> Street).

## 2. Impacts and Mitigation Measures

This section analyzes impacts related to shade and shadow that could result from implementation of the proposed Project. The subsection begins with the criteria of significance, which establish the thresholds for determining whether an impact is significant. The latter part of this section presents the impacts associated with the proposed Project. Mitigation measures are recommended, as appropriate.

**a. Criteria of Significance.** Implementation of the proposed Project would have a significant effect on visual and aesthetic resources if it would:

- Introduce landscape that would now or in the future cast shadow on existing solar collectors (in conflict with California Public Resource Code Section 25980-25986);
- Cast shadow that substantially impairs the function of a building using passive solar heat collection, solar collectors for hot water heating, or photovoltaic solar collectors;
- Cast shadow that substantially impairs the beneficial use of any public or quasi-public park, lawn, garden, or open space; or
- Cast shadow on a historic resource, as defined by CEQA Section 15064.5(a), such that it would substantially diminish/impair its eligibility for listing in the National Register of Historic Places, California Register of Historical Resources, or in a local register of historical resources or a historical resource survey as defined by the Public Resource Code.

**b. Less-than-Significant Shade and Shadow Impacts.** The following discussion describes the less-than-significant shade and shadow-related impacts that could result from implementation of the proposed Project.

**(1) New Shadows Generated by the Proposed Project.** Implementation of the proposed Project would result in buildings that are taller and more massive than buildings currently within the Project site. As depicted in Figures IV.A-1 through IV.L-12, these buildings would cast new shadows on buildings, streets, and parking lots surrounding the Project site.

On June 21 (and generally in late spring and early summer), during the morning (9:00 a.m.) and afternoon (3:00 p.m.), new shadows created by the proposed Project would extend west across San Pablo Avenue into predominantly commercial areas, and east over the office building within the southeast quadrant of the intersection of 21<sup>st</sup> Street and Telegraph Avenue. The extreme western edge of the Paramount Theater could be affected by afternoon shadow from the proposed student housing tower in Block 3. However, shadow coverage of the Paramount Theater would be relatively small on June 21.

Shadows generated by the proposed Project during December 21 would be the most extensive that could occur as a result of Project development. Morning (9:00 a.m.) shadows would extend

northwestward across Interstate 980 into predominantly residential and commercial areas. Morning shadow would also cover the multi-story apartment complex immediately to the north of Block 7. Shadows at 3:00 p.m. would extend northeastward across a wide swath of downtown Oakland, including over the Paramount Theater. Morning and afternoon shadows during fall and spring resulting from the structures proposed as part of the Project would reach west almost to Martin Luther King Jr. Way (through predominantly residential areas) and east through retail and office uses fronting Telegraph Avenue.

**(2) Solar Collectors and Photovoltaic Cells.** A drive-through survey of the Project site vicinity, and an inspection of air photos identified no solar collectors or photovoltaic (PV) cells that would be substantially affected by shadow resulting from buildings or landscaping proposed as part of the Project.

**(3) Historic Resources.** The development of structures proposed as part of the Project would cast shade on portions or all of the Great Western Power Plant (formerly known as the Navlet's Florist and Nursery) for the majority of the year, with the exception of late afternoons in the spring and fall. However, under existing conditions, the Great Western Power Plant is already under shadow during mornings in the winter, spring, and fall, and afternoons during the winter. The Great Western Power Plant is characterized by a massive arched façade, overscaled classical detailing, and concrete construction. The façade does not contain complex detailing or color schemes that would be obscured by shade. In addition, there is no landscaping around the building (related to the historic integrity of the structure) that would be adversely affected by an increase in shadow. The major architectural features that make the Great Western Power Plant eligible for Designated Historic Property status would not be compromised by shade cast on the building by the proposed Project.

In addition, although mid-winter shadows generated by the proposed Project would affect other historic buildings in the Uptown District, including the Paramount Theater, these shadows would not occur throughout the year and would not substantially degrade the historic integrity of historic buildings in the vicinity of the Project site. Buildings in areas affected by new Project-related shadow are already subject to shadows cast by existing high-rise buildings in Downtown Oakland. New shadow would not be cast on the Fox Theater.

**(4) Parks and Open Space.** New shadow created by the proposed Project would not substantially impair the beneficial use of any public or quasi-public park, lawn, garden, or open space area. The public park located north of the Project site, within the northeast quadrant of the intersection of 21<sup>st</sup> Street and San Pablo Avenue would not be subject to shadow cast by the proposed Project. In addition, the proposed 25,000 square foot park within the Project site would not be substantially adversely affected by shade cast by Project structures. The park would be mostly or wholly shade-free during the majority of the year, including during most afternoons in the summer, spring, and fall. It is anticipated that shade cast by the Project structures on the proposed park would not adversely affect enjoyment of the park; due to the availability of afternoon sunlight within the park, it is expected that the park will provide an appealing place for outdoor activity.

**c. Significant Shade and Shadow Impacts.** Implementation of the proposed Project would not result in significant shade and shadow-related impacts.



## V. REPORT PREPARATION

### A. REPORT PREPARATION

**LSA Associates, Inc.** *Report Production and Management; Project Description; Land Use; Population, Employment and Housing; Air Quality; Noise; Utilities and Infrastructure; and Historic Architectural, Archaeological and Paleontological Resources.*

2215 Fifth Street  
Berkeley, CA 94710

David Clore, AICP, Principal, Principal-in-Charge  
Lynette Dias, AICP, Principal, Project Manager  
Adam Weinstein, Assistant Project Manager  
Tony Chung, Principal, Air Quality and Noise Manager  
Christian Gerike, Principal, Cultural Resources Manager  
Andrew Pulcheon, Archaeologist  
Shannon Allen, Planner  
Skip Shimmin, Graphics Manager  
Patty Linder, Graphics and Production  
Susan Smith, Word Processing

**Baseline Environmental Consulting.** *Hydrology and Water Quality and Hazards and Hazardous Materials.*

5900 Hollis Street, Suite D  
Emeryville, CA 94608

Yane Nordhav, R.G., Principal-in-Charge  
Bruce Abelli-Amen, R.G., C.H.G.  
Kevin O’Dea, C.E.G.  
Todd Taylor, R.E.A.

**Korve Engineering, Inc.** *Transportation, Circulation and Parking.*

155 Grand Avenue, Suite 400  
Oakland, CA 94612

Bill Burton, Principal

**Environmental Vision.** *Aesthetic Resources and Shade and Shadow.*

2550 9<sup>th</sup> Street  
Berkeley, CA 94710

Marsha Gale, Principal

**Donald Ballanti, Certified Consulting Meteorologist.** *Wind.*

1424 Scott Street  
El Cerrito, CA 94530



## **B. PRIMARY CITY CONTACTS**

City of Oakland  
250 Frank Ogawa Plaza  
Oakland, CA 94612

Claudia Cappio, Deputy Director of City Planning  
Catherine E. Payne, Planner III, Planning and Zoning Division  
Dan Vanderprie, Urban Economic Coordinator  
Jens Hillmer, Urban Economic Analyst  
Heather Lee, Deputy City Attorney

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## **APPENDIX A**

**A-1 OAKLAND GENERAL PLAN LAND USE AND  
TRANSPORTATION ELEMENT EIR SUMMARY**

**A-2 RESOLUTIONS AUTHORIZING AB 436  
(PUBLIC RESOURCES CODE SECTION 21159.25)**

**A-3 NOTICE OF PREPARATION**

**A-4 COMMENT LETTERS**



**APPENDIX A-1**  
**OAKLAND GENERAL PLAN LAND USE AND TRANSPORTATION**  
**ELEMENT EIR SUMMARY**

# OAKLAND GENERAL PLAN LAND USE AND TRANSPORTATION ELEMENT

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## *Draft Environmental Impact Report*

*October 31, 1997*

*ER No. 97-18*

*State Clearinghouse No. 97062089*

*Prepared for:*

*City of Oakland*

*Community and Economic Development Agency*

**ESA** | Environmental  
Science  
Associates

# SUMMARY

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## A. PROJECT DESCRIPTION

The project is the update of the Land Use and Transportation Element of the Oakland General Plan. The Element combines the State-mandated Land Use Element and Circulation Element into a single integrated document. It replaces the 1980 Land Use Element and the 1974 Circulation Element of the Oakland General Plan and updates the Land Use and Circulation sections of the Oakland Policy Plan. In addition to updating the City's Land Use and Transportation Diagram, the Element introduces new strategies, policies, and priorities for Oakland's development and enhancement during the next two decades.

## B. ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential environmental impacts of the project are summarized in Table S-1 at the end of this chapter. This table lists impacts and mitigation measures in three major categories: significant impacts that would remain significant even with mitigation; significant impacts that can be mitigated to a level of less-than-significant; and impacts that would not be significant. For each significant impact, the table includes a summary of mitigation measure(s), followed by a column that indicates whether the impact would be mitigated to a less-than-significant level. Please refer to Chapter III for a complete discussion of each impact and associated mitigation.

As stated in Table S-1 and in Chapter III, the Land Use and Transportation Element would result in significant, unavoidable impacts in regard to transportation, public services, air quality, noise, wind, and consistency with adopted plans and policies.

## C. ALTERNATIVES

Chapter IV of this EIR analyzes three separate alternatives to the Land Use and Transportation Element: the "No Project" alternative, which would leave the existing 1980 General Plan in place; the "Alternative Designations" alternative, which considers the choices that were presented but not selected for the various sites analyzed during the Element update; and the "Environmentally Superior" alternative, which identifies lower levels of development in those areas with environmental constraints, including the hills, and requires mitigation of the adverse impacts identified in this EIR to the point where they would be less than significant.

**TABLE S-1  
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Significant Impact	Mitigation Measures	Significance After Mitigation
<b>A. SIGNIFICANT UNAVOIDABLE IMPACTS</b>		
<b><u>B. Transportation</u></b>		
<b>B.1:</b> Development pursuant to the updated Land Use and Transportation Element would result in the degradation of the level of service on several roadway segments.	<b>B.1:</b> Implement roadway improvements and transit improvements to reduce congestion on arterial roadways.	SU
<b><u>D. Public Services</u></b>		
<b>D.6-2:</b> Development consistent with the proposed Land Use and Transportation Element would result in higher levels of population in areas where fire fighting and evacuation constraints presently exist. These constraints include narrow street widths, insufficient turning radii, steep slopes, distant fire stations, and an emergency water supply that is vulnerable to disruption in the event of an earthquake or power failure.	<b>D.6-2:</b> Proceed with construction of a fire station in the North Oakland Hills to reduce the identified service deficiency in this area, to reduce response times, and to minimize the risk of catastrophic wildfire.	SU
<b><u>E. Air Quality</u></b>		
<b>E.1:</b> Implementation of the proposed Land Use and Transportation Element would not be consistent with population and VMT assumptions used in air quality planning, and would result in increased regional emissions of criteria air pollutants.	<b>E.1:</b> To the extent permitted by law, large new development within the City shall be required to implement Transportation Control Measures (TCMs) as recommended by the Bay Area Air Quality Management District (listed under Mitigation Measure E.6).	SU

SU = Significant and Unavoidable

**TABLE S-1 (Continued)**  
**SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Significant Impact	Mitigation Measures	Significance After Mitigation
<b>A. SIGNIFICANT UNAVOIDABLE IMPACTS</b>		
<b>E.6:</b> Cumulative development of projects in the Downtown Showcase District would result in long-term traffic increases and associated air pollutant emissions, which would adversely affect regional air quality.	<b>E.6:</b> The the extent permitted by law, downtown projects should be required to implement Transportation Control Measures (TCMs) to reduce mobile source emissions. Many of these measures already would be part of the downtown projects due to the proximity of these projects to existing local and regional transit facilities and existing limitations on parking availability.	SU
<b>E.10:</b> Cumulative development of projects in the Coliseum Showcase District would result in traffic increases and associated air pollutant emissions, which would adversely affect regional air quality.	<b>E.10:</b> Implement Mitigation Measure E.6.	SU
<b>L. Noise</b>		
<b>L.8:</b> Development of the downtown projects would generate short-term increases in noise and vibration due to construction.	<b>L.8:</b> The City shall require the project sponsors to implement noise control techniques to minimize disturbance to adjacent or nearby sensitive noise receptors during project construction.	SU
<b>L.11:</b> Construction of projects in the Coliseum Showcase District would generate short-term increases in noise and vibration, and potential noise increases would be the same as described under Impact L.8 above for the Downtown Showcase District.	<b>L.11:</b> The City shall require the project sponsors to implement noise control techniques to minimize disturbance to adjacent or nearby sensitive noise receptors during project construction.	SU

SU = Significant and Unavoidable.

TABLE S-1 (Continued)  
 SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Significant Impact	Mitigation Measures	Significance After Mitigation
<b>A. SIGNIFICANT UNAVOIDABLE IMPACTS</b>		
<b>N. <u>Wind</u></b>		
<p><b>N.1:</b> Adoption of the Element could result in development that would change wind speeds at locations in the Downtown Showcase District.</p>	<p><b>N.1:</b> The City shall require the project sponsors to incorporate specific design elements in the final siting and designs for the high rises that could reduce ground-level winds within the Downtown Showcase District.</p>	<p>SU</p>
<b>O. <u>Consistency with Adopted Plans and Policies</u></b>		
<p><b>O.3:</b> The proposed Land Use and Transportation Element would be consistent with regional policies and programs except for the Clean Air Plan.</p>	<p><b>O.3:</b> Implement Mitigation Measures E.1 and E.6.</p>	<p>SU</p>

SU = Significant and Unavoidable

**TABLE S-1 (Continued)**  
**SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Significant Impact	Mitigation Measures	Significance After Mitigation
<b>B. SIGNIFICANT BUT MITIGABLE IMPACTS</b>		
<b>A. Land Use</b>		
<p><b>A.1:</b> Implementation of the proposed Land Use and Transportation Element would alter the Oakland General Plan land use classifications, changing the densities that are allowed in various residential designations and restructuring the commercial and industrial designations to reflect a broader range of industry and business than anticipated in the 1980 Plan. Development consistent with the new definitions could result in a broader range of commercial and industrial uses in some areas.</p>	<p><b>A.1a:</b> Establish performance based standards which designate appropriate levels of noise, odors, light/glare, traffic volumes, or other such characteristics for industrial activities located near commercial or residential areas.</p> <p><b>A.1b:</b> Develop "performance" zoning regulations which permit industrial and commercial uses based upon their compatibility with other adjacent or nearby land uses.</p> <p><b>A.1c:</b> Develop strategies to mitigate conflicts associated with live/ work and home occupation uses.</p> <p><b>A.1d:</b> During the revision of the zoning ordinance and map, develop zoning district definitions and map boundaries to protect enclaves of lower density residential development that may be designated for more inclusive density categories on the Land Use and Transportation Diagram. Use the General Plan Strategy Diagram as a means of making these determinations.</p> <p><b>A.1e:</b> During the revision of the zoning ordinance, develop a one acre minimum lot size zoning district. Consistent with the recommendations of the OSCAR Element, apply this district to appropriate areas of the Oakland Hills as a means of maintaining and enhancing neighborhood character.</p>	<p>LS</p>

LS = Less than Significant

**TABLE S-1 (Continued)**  
**SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Significant Impact	Mitigation Measures	Significance After Mitigation
<b>B. SIGNIFICANT BUT MITIGABLE IMPACTS</b>		
<p><b>A.2:</b> Land Use Diagram changes could facilitate the redevelopment of large parts of the City, including military bases, transit corridors, the Coliseum area, the Estuary shoreline, and Downtown. Implementation of the proposed Land Use and Transportation Element would change the allowable land uses in a number of locations within the City. Subsequent zoning changes could result in designations that are inconsistent with the existing uses. Zoning changes consistent with the proposed Element could render some uses non-conforming.</p>	<p><b>A.2a:</b> Establish design requirements for large-scale commercial development that requires adequate buffers from residential uses. Use of open space, recreation space, or transit installations as buffers should be encouraged.</p> <p><b>A.2b:</b> Develop distinct definitions for home occupation, live/work and work/live operations; define appropriate locations for these activities and performance criteria for their establishment; and create permitting procedures and fees that facilitate the establishment of those activities which meet the performance criteria.</p> <p><b>A.2c:</b> Ensure that structures and sites are designed in an attractive manner which harmonizes with or enhances the visual appearance of the surrounding environment by preparing and adopting industrial and commercial development guidelines.</p> <p><b>A.2d:</b> Establish performance-based standards which designate appropriate levels of noise, odors, light/glare, traffic volumes, or other such characteristics for industrial activities located near commercial or residential areas.</p> <p><b>A.2e:</b> Develop performance zoning regulations which permit industrial and commercial uses based upon their compatibility with other adjacent or nearby uses.</p>	<p>LS</p>

LS = Less than Significant



**TABLE S-1 (Continued)**  
**SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Significant Impact	Mitigation Measures	Significance After Mitigation
<b>B. SIGNIFICANT BUT MITIGABLE IMPACTS</b>		
	<b>A.2f:</b> Develop an incentive program to encourage the relocation of non-conforming industrial/ commercial businesses or residential uses to more appropriate locations in the City.	
<b>B. <u>Transportation and Circulation</u></b>		
<b>B.3:</b> Development of Downtown Showcase District projects would result in degradation of intersection levels of service.	<b>B.3:</b> The impacts at the intersection of 12 <sup>th</sup> Street and Brush Street can be mitigated by increasing the cycle length to 120 seconds.	LS
<b>B.4:</b> Development of the Coliseum Showcase District projects would result in degradation of intersection levels of services.	<b>B.4a:</b> Install a traffic signal at the intersection of 66th Avenue and I-880 southbound ramps and restripe the lanes of the southbound off-ramp. This intersection meets the Caltrans peak hour signal warrants under PM peak hour conditions.	LS
	<b>B.4b:</b> Install a traffic signal at the intersection of 66th Avenue and I-880 northbound ramps. This intersection meets the Caltrans peak hour signal warrants under PM peak hour conditions.	
	<b>B.4c:</b> Install a traffic signal at the intersection of 66th Avenue and Oakport Street and widen Oakport Street to provide a through and turn lane in each direction. This intersection meets the Caltrans peak hour signal warrants under PM peak hour conditions.	

LS = Less than Significant

**TABLE S-1 (Continued)**  
**SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Significant Impact	Mitigation Measures	Significance After Mitigation
<b>B. SIGNIFICANT BUT MITIGABLE IMPACTS</b>		
	<p><b>B.4d:</b> Widen the northbound approach at the High Street and Coliseum Way intersection to provide an additional left-turn lane or restripe the eastbound approach to provide double left-turn lanes and a shared through/right-turn lane. This intersection may be subject to changes in traffic patterns as a result of the current studies being conducted to reconfigure the High Street and 42 Street intersection. The identified mitigation measure should be implemented only after the reconfiguration of the High Street and 42nd Street intersection is approved.</p>	
<b>C. <u>Population, Housing, and Employment</u></b>		
<p><b>C.1:</b> The Land Use and Transportation Element would alter the amount of land available for new employment uses, increasing the acreage in some categories and decreasing it in others. A net increase in employment development potential would be created through policies and land use designations, including the promotion of redevelopment on over 1,100 acres at three military bases (OKNH, FISCO, and OAB) and 6,500 acres in the Coliseum Area. While the land supply for commercial development would not change significantly, the policy emphasis on Downtown and corridor redevelopment, coupled with airport and harbor expansion and a number of specific developments "in the pipeline," would result in substantially higher employment in the retail, service, and government sectors. Projected employment will be significantly higher than the quantity anticipated by ABAG, creating a demand for new housing and increasing Oakland's jobs:housing ratio.</p>	<p><b>C.2:</b> The City should maintain a data base of vacant and underutilized parcels in a form that is accessible to all departments. The City should assist developers of affordable and market rate housing in locating appropriate sites for their developments and identifying potential neighborhood concerns.</p>	LS

LS = Less than Significant

**TABLE S-1 (Continued)**  
**SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Significant Impact	Mitigation Measures	Significance After Mitigation
<b>B. SIGNIFICANT BUT MITIGABLE IMPACTS</b>		
<b>D. Public Services</b>		
<b>D.1-2:</b> Increased water demand would require localized improvements to the water delivery system and could require the addition of new infrastructure such as pumps and storage facilities in areas where major redevelopment or new development is proposed. These areas include the military bases, Downtown, the waterfront, transit station areas and transit corridors.	<b>D.1-2:</b> Review major new development proposals to determine projected water, wastewater, and storm drainage loads compared with available water, sewer, and storm drain capacity. Where appropriate, determine appropriate capital improvement requirements, fiscal impacts, and funding sources prior to project approval.	LS
<b>D.2-2:</b> Increased sanitary sewer flows would require localized improvements to the sewage collection system and could require the addition of new laterals and collection mains and upgraded pumps, lift stations, and other wastewater infrastructure. This impact would be most pronounced in areas where major redevelopment or new development is proposed, including the military bases, Downtown, along the waterfront, around transit stations and along transit corridors.	<b>D.2-2:</b> Review major new development proposals to determine projected water, wastewater, and storm drainage loads compared with available water, sewer, and storm drain capacity. Where appropriate, determine appropriate capital improvement requirements, fiscal impacts, and funding sources prior to project approval.	LS
<b>D.3-2:</b> The proposed Land Use and Transportation Element would allow continued buildout of hill area subdivisions and additional development of vacant land in the Oakland Hills, an area with acknowledged drainage problems.	<b>D.3-2a:</b> Review major new development proposals to determine projected water, wastewater, and storm drainage loads compared with available water, sewer, and storm drain capacity. Where appropriate, determine appropriate capital improvement requirements, fiscal impacts, and funding sources prior to project approval.	LS

LS = Less than Significant

**TABLE S-1 (Continued)  
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Significant Impact	Mitigation Measures	Significance After Mitigation
<b>B. SIGNIFICANT BUT MITIGABLE IMPACTS</b>		
<p><b>D.4-1:</b> New development consistent with the proposed Land Use and Transportation Element would increase the demand for solid waste services. Because of the higher population and employment forecasts contained in the Element, demand would increase at a faster rate than it would under the current General Plan.</p>	<p><b>D.3-2b:</b> Require major new developments to include a combination of on-site and off-site drainage improvements to ensure that such projects do not create downstream erosion or flood hazards, or adversely impact the City's ability to manage stormwater runoff.</p> <p><b>D.3-2c:</b> Address hill area drainage needs and develop additional drainage policies in the updated Safety Element.</p> <p><b>D.3-2d:</b> Prepare a comprehensive study of hill area drainage needs and identify policies, programs, and capital improvements to address these needs in the future.</p> <p><b>D.4-1a:</b> Continue to implement programs that reduce the amount of solid waste generated in the City by encouraging recycling, composting, and other activities consistent with the City's Source Reduction and Recycling Element.</p> <p><b>D.4-1b:</b> Support solid waste collection, recycling, and disposal rates that are sufficient to cover the cost of adequate, efficient service delivery.</p> <p><b>D.4-1c:</b> Establish guidelines and incentives for the recycling of construction and demolition debris and the use of recycled concrete and other recycled products in the construction of new buildings, roads, and infrastructure.</p>	<p>LS</p>

LS = Less than Significant

**TABLE S-1 (Continued)**  
**SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Significant Impact	Mitigation Measures	Significance After Mitigation
<b>B. SIGNIFICANT BUT MITIGABLE IMPACTS</b>		
<p><b>D.5-1:</b> Development consistent with the proposed Land Use and Transportation Element would result in higher levels of population and employment, thereby increasing the demand for police services. The need for staff, facilities, and equipment would increase in the Downtown, waterfront, military base, and transit corridor neighborhoods.</p>	<p><b>D.5-1a:</b> In reviewing major land use or policy decisions, consider the availability of police and fire protection services, park and recreation services, schools, and library services in the affected areas, as well as the impact of the project on current service levels.</p> <p><b>D.5-1b:</b> Develop target ratios of police officers and firefighters to population for annual budgeting purposes. These ratios should be used to assess the feasibility and merits of service fees on new development which finance additional police officers and fire fighters.</p> <p><b>D.5-1c:</b> Increase police foot patrols and cruisers in high visibility downtown areas and locate funding sources to support them.</p> <p><b>D.5-1d:</b> Analyze the distribution of services provided by the public and privately operated civic and institutional uses, identify underserved areas of the City and increase services in those areas.</p> <p><b>D.5-1e:</b> Solicit comments from the Oakland Police and Fire Departments on major new development proposals to ensure that law enforcement and fire protection impacts are appropriately addressed and mitigated.</p>	<p>LS</p>

LS = Less than Significant

**TABLE S-1 (Continued)**  
**SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Significant Impact	Mitigation Measures	Significance After Mitigation
<b>B. SIGNIFICANT BUT MITIGABLE IMPACTS</b>		
<p><b>D.6-1:</b> Development consistent with the proposed Land Use and Transportation Element would result in higher levels of population and employment, thereby increasing the demand for fire protection and emergency medical services. The need for staff, facilities, and equipment would increase in the Downtown, waterfront, military base, transit corridor and other residential neighborhoods as redevelopment occurred.</p>	<p><b>D.6-1a:</b> In reviewing major land use or policy decisions, consider the availability of police and fire protection services, park and recreation services, schools, and library services in the affected areas, as well as the impact of the project on current service levels.</p> <p><b>D.6-1b:</b> Develop target ratios of police officers and firefighters to population for annual budgeting purposes. These ratios should be used to assess the feasibility and merits of service fees on new development which finance additional police officers and fire fighters.</p> <p><b>D.6-1c:</b> Retain the existing Fire Stations at all three military bases to facilitate the provision of adequate public services to users of these sites as well as to surrounding properties.</p> <p><b>D.6-1d:</b> Solicit comments from the Oakland Police and Fire departments on major new development proposals to ensure that law enforcement and fire protection impacts are appropriately addressed and mitigated during project planning and design.</p>	<p>LS</p>
<p><b>D.7-1:</b> Development consistent with the proposed Land Use and Transportation Element could increase the number of students served by the Oakland Unified School District (OUSD). The greatest impacts would be Downtown and in the Waterfront area.</p>	<p><b>D.7-1a:</b> Mitigation measures available to the School District to reduce overcrowding include:</p> <ol style="list-style-type: none"> <li>1) reassigning students among district schools to account for changing population and new development;</li> <li>2) continuation and expansion of year-round school;</li> </ol>	<p>LS</p>

LS = Less than Significant

**TABLE S-1 (Continued)**  
**SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Significant Impact	Mitigation Measures	Significance After Mitigation
<b>B. SIGNIFICANT BUT MITIGABLE IMPACTS</b>	<ol style="list-style-type: none"> <li>3) more efficient use of underutilized and/or abandoned school facilities;</li> <li>4) addition of portable classrooms; and</li> <li>5) the busing of students to less crowded schools.</li> </ol> <p>If these measures do not reduce overcrowding, OUSD may have to expand existing schools or construct new schools. All of these measures would require varying amounts of funding.</p> <p>If current sources of funding including the City of Oakland school mitigation fees, increases in property taxes and sales tax revenues, and increases in state funding are insufficient to pay for the cost of these mitigating overcrowding, the OUSD should formulate and implement specific measures to raise additional funds. Funding sources which may be considered by OUSD include:</p> <ol style="list-style-type: none"> <li>1) adjustments of school mitigation fees on commercial and residential development;</li> <li>2) the creation of special assessment or Mello Roos districts or annexation to a Community Facilities District;</li> <li>3) sale of surplus OUSD property; and</li> </ol>	

LS = Less than Significant

**TABLE S-1 (Continued)  
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Significant Impact	Mitigation Measures	Significance After Mitigation
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**B. SIGNIFICANT BUT MITIGABLE IMPACTS**

4) any other funding mechanisms available to the OUSD by state law or local ordinances, including those measures identified in the OUSD's 1996 Developer Fee Justification Study.

**D.7-1b:** In reviewing major land use or policy decisions, the City will consider the availability of police and fire protection services, park and recreational services, schools, and library services in the affected areas and the impact of the project on the current service levels.

**D.7-1c:** Support the School District's efforts to use local bond issues and voter approved assessment districts as a means of providing adequate school facilities.

**D.7-1d:** Where feasible and appropriate, encourage the inclusion of child care centers in major residential and commercial developments near transit centers, community centers, and schools.

**D.7-1e:** Continue to assist the Oakland Unified School District in securing all of the fees, grants, and other financial resources possible.

**D.7-1f:** Work with the School District to coordinate land use and school facility planning and continue efforts by the City to collect impact fees and monitor the school capacity impacts of new development.

LS = Less than Significant



**TABLE S-1 (Continued)**  
**SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Significant Impact	Mitigation Measures	Significance After Mitigation
<b>B. SIGNIFICANT BUT MITIGABLE IMPACTS</b>		
<p><b>D.8-1:</b> Development consistent with the proposed Land Use and Transportation Element could result in an increased number of patrons at the Main and branch libraries. The greatest impacts would be in the South Hills, where there are presently no library facilities; along the waterfront, where there are no library facilities; and along the transit corridors, where libraries generally exist but are too small to meet projected patronage requirements.</p>	<p><b>D.7-1g:</b> The Office of Parks and Recreation, Real Estate Division of the Office of Public Works, and the Oakland Unified School District should assess the use of City and school-owned parcels for use as civic, institutional, or recreational facilities.</p> <p><b>D.7-1h:</b> Support state and federal legislation to promote affordable, safe, high-quality child care, including children with special needs.</p>	<p>LS</p>
<b>E. Air Quality</b>		
<p><b>E.4:</b> Proposed General Plan map changes to allow a mix of commercial and residential uses (Urban Residential, Neighborhood Center Commercial, and Community Commercial designations) could result in odor nuisance problems at residential receptors.</p>	<p><b>E.4:</b> Where residential development would be located above commercial uses, parking garages, or any other uses with a potential to generate odors, the odor-generating use should be properly vented (e.g., located on rooftops) and designed (e.g., equipped with afterburners) so as to minimize the potential for nuisance odor problems.</p>	<p>LS</p>

LS = Less than Significant

**TABLE S-1 (Continued)**  
**SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Significant Impact	Mitigation Measures	Significance After Mitigation
<b>B. SIGNIFICANT BUT MITIGABLE IMPACTS</b>		
<p><b>E.5:</b> Construction activities associated with downtown projects in the Downtown Showcase District would generate dust (including the respirable fraction known as PM<sub>10</sub>) and combustion emissions.</p>	<p><b>E.5a:</b> The following Basic Control Measures shall be implemented at all construction sites:</p> <ul style="list-style-type: none"> <li>• Water all active construction areas at least twice daily.</li> <li>• Cover all trucks hauling soil, sand, and other loose debris <i>or</i> require all trucks to maintain at least two feet of freeboard.</li> <li>• Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.</li> <li>• Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites.</li> <li>• Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.</li> </ul> <p><b>E.5b:</b> The following enhanced control measures shall be implemented at all construction sites when more than four acres are under construction at any one time:</p> <ul style="list-style-type: none"> <li>• Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).</li> <li>• Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.)</li> <li>• Limit traffic speeds on unpaved roads to 15 mph.</li> </ul>	<p>LS</p>

LS = Less than Significant

**TABLE S-1 (Continued)**  
**SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Significant Impact	Mitigation Measures	Significance After Mitigation
<b>B. SIGNIFICANT BUT MITIGABLE IMPACTS</b>	<ul style="list-style-type: none"> <li>• Install sandbags or other erosion control measures to prevent silt runoff to public roadways.</li> <li>• Replant vegetation in disturbed areas as quickly as possible.</li> </ul> <p><b>E.5c:</b> BAAQMD dust control measures would be implemented by contractors of future development projects as outlined in BAAQMD <i>CEQA Guidelines</i> (1996) or any subsequent applicable BAAQMD updates. They are as follows:</p> <ul style="list-style-type: none"> <li>• Any stationary motor sources (such as generators and compressors) to be located within 100 feet of any residence or school (sensitive receptors) would be equipped with a supplementary pollution control system on its exhaust as required by Bay Area Air Quality Management District (BAAQMD) and California Air Resources Board (CARB).</li> <li>• To minimize construction equipment emissions, low- NOx tune-ups should be performed on all construction equipment. Contractors should be required to utilize equipment with recent (within 30 days) low- NOx tune-ups to minimize NOx emissions. This would apply to all diesel-powered equipment greater than 50 horsepower and periodic tune-ups (every 90 days) would be required for equipment used continuously for construction of a specific development.</li> </ul>	

LS = Less than Significant

**TABLE S-1 (Continued)**  
**SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Significant Impact	Mitigation Measures	Significance After Mitigation
<b>B. SIGNIFICANT BUT MITIGABLE IMPACTS</b>		
<p><b>E.9:</b> E.9: Construction activities associated with projects in the Coliseum Showcase District would generate dust (including the respirable fraction known as PM<sub>10</sub>) and combustion emissions.</p>	<p><b>E.9:</b> Implement Mitigation Measures E.5a, E.5b, and E.5c.</p>	<p>LS</p>
<b>F. <u>Visual and Aesthetic Conditions</u></b>		
<p><b>F.2:</b> The Land Use and Transportation Element encourages high-rise development in Downtown Oakland. Such development could potentially block views, cast shadows, appear visually incongruous with adjacent low-rise development, and block views of the City skyline from surrounding neighborhoods.</p>	<p><b>F.2a:</b> Develop guidelines or a “step back” ordinance for height and bulk for new development projects in the downtown area. Projects should be encouraged to be designed at pedestrian-scale on the street-side, with high towers or strong vertical elements stepping back from the street.</p>	<p>LS</p>
	<p><b>F.2b:</b> Analyze the desired height of downtown office development and develop zoning regulations that support the preferred skyline design.</p>	
	<p><b>F.2c:</b> Define view corridors and, based upon these views, designate appropriate height limits and other requirements. Views of Lake Merritt, the Estuary, and architecturally or historically significant buildings should be considered.</p>	

LS = Less than Significant

**TABLE S-1 (Continued)**  
**SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Significant Impact	Mitigation Measures	Significance After Mitigation
<b>B. SIGNIFICANT BUT MITIGABLE IMPACTS</b>		
<p><b>F.3:</b> The Land Use and Transportation Element would set in place policies and land use designations that encourage mid-rise, pedestrian-scale mixed use development along approximately 20 miles of transit-oriented corridors within the City. Although existing General Plan designations and zoning already permit this scale and mix of development in most instances, the policy emphasis on these areas could create additional momentum for development. Development of the scale proposed by the Plan would generally have positive visual impacts but could interrupt views and create the potential for architecturally incompatible development.</p>	<p><b>F.3a:</b> Develop standard design guidelines for all Neighborhood Commercial areas that require continuous or nearly continuous storefronts located along the front yard setback, promote small scale commercial activities rather than large scale establishments at the ground level, restrict front yard parking lots and driveways, require small scale pedestrian-oriented signage, have a relatively low height limit, and promote the development of pedestrian friendly amenities at the street level. The standard design guidelines may be expanded to capture the unique or desired character of certain areas.</p> <p><b>F.3b:</b> Ensure that structures and sites are designed in an attractive manner which harmonizes with or enhances the visual appearance of the surrounding environment by preparing and adopting industrial and commercial design guidelines.</p> <p><b>F.3c:</b> Develop design guidelines for parking facilities of all types.</p>	<p>LS</p>
<b>G. Cultural and Historic Resources</b>		
<p><b>G.2:</b> Excavation of development sites consistent with the Land Use and Transportation Element could unearth archaeological resources. Some of these remains could have scientific or cultural importance.</p>	<p><b>G.2:</b> Establish criteria and interdepartmental referral procedures for determining when discretionary City approval of ground-disturbing activities should be subject to special conditions to safeguard potential archaeological resources.</p>	<p>LS</p>

LS = Less than Significant

**TABLE S-1 (Continued)  
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

<b>Significant Impact</b>	<b>Mitigation Measures</b>	<b>Significance After Mitigation</b>
<b>B. SIGNIFICANT BUT MITIGABLE IMPACTS</b>		
<p><b>G.3:</b> Many of the City's historic resources are located Downtown and along transit corridors. Higher density uses are proposed in these areas and redevelopment is encouraged. This could have direct impacts by increasing the pressure to remove or demolish older buildings, including some historic structures.</p>	<p><b>G.3a:</b> Amend the Zoning Regulations text to incorporate the new preservation regulations and incentives.</p> <p><b>G.3b:</b> Develop and adopt design guidelines for Landmarks and Preservation Districts.</p>	<p>LS</p>
<b>L. Noise</b>		
<p><b>L.3:</b> Proposed General Plan map changes to allow a mix of commercial and residential uses (Urban Residential, Neighborhood Center Commercial, and Community Commercial designations) could pose noise compatibility problems between residential and commercial uses.</p>	<p><b>L.3a:</b> Establish design requirements for large-scale commercial development that requires adequate buffers from residential uses. Use of open space, recreation space, or transit installations as buffers should be encouraged.</p> <p><b>L.3b:</b> Mixed residential/ non-residential neighborhoods should be rezoned after determining which should be used for residential, mixed, or non-residential uses. Some of the factors that should be considered when rezoning mixed use areas include the future intentions of the existing residents or businesses, natural features, or health hazards.</p>	<p>LS</p>

LS = Less than Significant

**TABLE S-1 (Continued)**  
**SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Significant Impact	Mitigation Measures	Significance After Mitigation
<b>B. SIGNIFICANT BUT MITIGABLE IMPACTS</b>		
<p><b>L.4:</b> Proposed General Plan map changes to allow higher residential densities could pose noise compatibility problems between future residential development and existing, lower density residential uses within the same land use category.</p>	<p><b>L.4:</b> Where high density residential development would be located adjacent to existing lower density residential development, new development shall be designed to minimize noise impacts on any existing residential uses due to increased traffic on local roadways and increased parking activities.</p>	LS
<p><b>L.5:</b> Proposed General Plan map changes to allow live-work and other forms of housing in transitional industrial areas could pose future noise compatibility problems.</p>	<p><b>L.5a:</b> The City should develop distinct definitions for home occupation, live/work and work/live operations; define appropriate locations for these activities and performance criteria for their establishment; and create permitting procedures and fees that facilitate the establishment of those activities which meet the performance criteria.</p> <p><b>L.5b:</b> Avoid proliferation of existing incompatible uses by eliminating, through appropriate rezoning actions, pockets of residential zoning within predominantly industrial areas.</p> <p><b>L.5c:</b> Establish performance-based standards which designate appropriate levels of noise, odors, light/glare, traffic volumes, or other such characteristics for industrial activities located near commercial or residential areas.</p> <p><b>L.5d:</b> Develop performance zoning regulations which permit industrial and commercial uses based upon their compatibility with other adjacent or nearby uses.</p>	LS

LS = Less than Significant

**TABLE S-1 (Continued)**  
**SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Significant Impact	Mitigation Measures	Significance After Mitigation
<b>B. SIGNIFICANT BUT MITIGABLE IMPACTS</b>		
<b>L.7:</b> Implementation of the proposed Land Use and Transportation Element could result in future transportation improvements that could create or aggravate noise compatibility problems with sensitive receptors.	<b>L.7:</b> Future transit improvements shall be designed sufficiently so that future noise levels along these streets can be adequately estimated and considered in the design of future residential or other noise-sensitive developments.	LS
<b>M. <u>Hazardous Materials</u></b>		
<b>M.5:</b> Remediation efforts at an identified hazardous waste site could expose workers and the public to hazardous substances.	<b>M.5:</b> Hazards to construction workers and the general public during demolition and construction shall be mitigated by the preparation and implementation of site-specific health and safety plans, as recommended by the Occupational Safety and Health Administration.	LS

LS = Less than Significant



**TABLE S-1 (Continued)  
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Significant Impact	Mitigation Measures	Significance After Mitigation
<b>B. LESS THAN SIGNIFICANT IMPACTS</b>		
<p><b>A.3:</b> Implementation of the Land Use and Transportation Element would place a greater emphasis on mixed use development and would require development of mixed use zoning designations. The emphasis on mixed use development could create a greater likelihood for conflicting uses within projects or between projects and adjacent sites.</p>	None required.	LS
<p><b>A.4:</b> Implementation of the proposed Land Use and Transportation Element could result in future transportation improvements that could have land use impacts.</p>	None required.	LS
<b><u>B. Transportation and Circulation</u></b>		
<p><b>B.2:</b> Development that would occur under the Land Use and Transportation Element would increase transit demand.</p>	None required.	LS

LS = Less than Significant

**TABLE S-1 (Continued)**  
**SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Significant Impact	Mitigation Measures	Significance After Mitigation
<b>B. LESS THAN SIGNIFICANT IMPACTS</b>		
<b>C. <u>Population, Housing, and Employment</u></b>		
<p><b>C.1:</b> The Land Use and Transportation Element would increase housing capacity in Oakland by providing greater allowances for higher density housing in commercial areas than those that already exist and by reclassifying several transit corridors for urban-density housing. Additionally, the Plan reflects emerging plans and development proposals for housing Downtown, at Oak Knoll Naval Hospital, along the Oakland Estuary, and at several BART Stations. The increase in land supply, coupled with specific development projects, are projected to result in a higher number of households in Oakland by the Plan's horizon year of 2015.</p>	None required.	LS
<p><b>C.3:</b> The Land Use and Transportation Element would redesignate approximately 45 acres on the Land Use Diagram from residential use to "Housing-Business Mix." Although the intent of this designation is to acknowledge the existing pattern and create areas where residential and industrial uses can co-exist harmoniously, rezoning consistent with the General Plan could lead to further encroachment of industrial uses in these areas. This could lead to a loss of housing stock in some locations.</p>	None required.	LS

LS = Less than Significant

**TABLE S-1 (Continued)**  
**SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Significant Impact	Mitigation Measures	Significance After Mitigation
<b>B. LESS THAN SIGNIFICANT IMPACTS</b>		
<b>D. <u>Public Services</u></b>		
<b>D.1-1:</b> Development consistent with the proposed Land Use and Transportation Element would result in an increase in water demand.	None required.	LS
<b>D.2-1:</b> Development consistent with the proposed Land Use and Transportation Element would result in an increase in flows to the regional wastewater treatment plant.	None required.	LS
<b>D.3-1:</b> Implementation of the proposed Land Use and Transportation Element would result in increased development activity Downtown, along transit corridors and around transit stations, along the waterfront, near the Coliseum, and on former military bases. Since these areas are already developed, the increased amount of impervious surface would be marginal and the amount and rate of runoff would not change significantly. The quality of runoff could be impacted by construction, soil disruption, and by the change in land uses in redevelopment areas. However, the shift would generally be away from manufacturing to more service-oriented industry and commerce.	None required.	LS

LS = Less than Significant

**TABLE S-1 (Continued)**  
**SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Significant Impact	Mitigation Measures	Significance After Mitigation
<b>B. LESS THAN SIGNIFICANT IMPACTS</b>		
<b>D.9-1:</b> Development consistent with the proposed Land Use and Transportation Element would increase the demand for park services, particularly in areas targeted for reuse and intensification. All of these areas, including Downtown, the waterfront, the transit stations and corridors, and the military bases, are located in areas that are already deficient in local-serving parkland. Further development would place even greater demands on the limited park acreage in these neighborhoods, unless additional park area was provided.	None required.	LS
<b>E. Air Quality</b>		
<b>E.2:</b> The proposed Land Use and Transportation Element would be consistent with <i>Clean Air Plan</i> Transportation Control Measures (TCMs).	None required.	LS
<b>E.3:</b> Implementation of the proposed Land Use and Transportation Element would result in traffic increases along roadways in the City which could result in localized air quality impacts.	None required.	LS
<b>E.7:</b> Cumulative development of projects in the Downtown Showcase District would result in traffic increases that could result in long-term, localized air quality impacts.	None required.	LS

LS = Less than Significant

**TABLE S-1 (Continued)**  
**SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Significant Impact	Mitigation Measures	Significance After Mitigation
<b>B. LESS THAN SIGNIFICANT IMPACTS</b>		
<b>E.8:</b> Cumulative development of downtown projects would result in increased stationary source emissions associated with heating and electricity consumption.	None required.	LS
<b>E.11:</b> Cumulative development of projects in the Coliseum Showcase District would result in traffic increases that could result in localized air quality impacts.	None required.	LS
<b>E.12:</b> Cumulative development of Coliseum projects would result in increased stationary source emissions associated with heating and electricity consumption or other uses.	None required.	LS
<b>F. <u>Visual and Aesthetic Conditions</u></b>		
<b>F.1:</b> Development consistent with the Future Land Use Diagram could degrade or destroy existing scenic resources in the City, including hillsides, ridges, canyons, trees and riparian areas. However, adoption of the Element alone would not increase the potential for impacts. Existing policies in the OSCAR Element provide general mitigation of visual impacts.	None required.	LS

LS = Less than Significant

**TABLE S-1 (Continued)**  
**SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Significant Impact	Mitigation Measures	Significance After Mitigation
<b>B. LESS THAN SIGNIFICANT IMPACTS</b>		
<b>G. <u>Cultural and Historic Resources</u></b>		
<b>G.1:</b> Excavation of development sites consistent with the Land Use and Transportation Element could unearth paleontologic remains. Some of these remains could have scientific importance. However, adoption of the proposed Element would not significantly affect these resources.	None required.	LS
<b>G.4:</b> Increased development and more intense development in areas with high concentrations of older structures could have indirect impacts on these structures by changing their context and setting. Even if left intact, the integrity of older buildings could be compromised as larger, modern buildings are erected on adjoining properties.	None required.	LS
<b>G.5:</b> The Element's emphasis on adaptive re-use and live-work development could result in alteration of older buildings and historic structures in a manner that is architecturally incompatible with the structure.	None required.	LS
<b>H. <u>Vegetation and Wildlife</u></b>		
<b>H.1:</b> Development consistent with the Land Use and Transportation Element could damage or remove potential habitat for special status species on undeveloped parcels within the City, particularly at the military bases, along the Estuary, and at Leona Quarry.	None required.	LS

LS = Less than Significant

**TABLE S-1 (Continued)**  
**SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Significant Impact	Mitigation Measures	Significance After Mitigation
<b>B. LESS THAN SIGNIFICANT IMPACTS</b>		
<b>H.2:</b> Development consistent with the Land Use and Transportation Element could trigger impacts on adjacent lands designated for Resource Conservation. Greater levels of noise, traffic, lighting, urban runoff, and human activity on lands adjacent to waterfront parks could reduce the value of these areas as wildlife habitat.	None required.	LS
<b>H.3:</b> Development consistent with the Land Use and Transportation Element could affect the habitat of certain special status plants and result in the loss of special status plant species, and could result in the loss of mature trees on new development sites.	None required.	LS
<b>I. <u>Hydrology and Water Quality</u></b>		
<b>I.1:</b> Implementation of the proposed Land Use and Transportation Element would result in increased development activity at various locations throughout the City, including locations adjacent to creeks and waterways, which could result in water quality impacts during construction.	None required.	LS

LS = Less than Significant

**TABLE S-1 (Continued)**  
**SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Significant Impact	Mitigation Measures	Significance After Mitigation
<b>B. LESS THAN SIGNIFICANT IMPACTS</b>		
<p><b>I.2:</b> Implementation of the proposed Land Use and Transportation Element would result in increased development activity that could alter drainage patterns, could increase impermeable surfaces leading to increased volume of runoff, and could potentially affect quality of stormwater runoff. However, since the areas proposed for the greatest change are already developed with similar uses, the changes in runoff patterns, volume and quality would be negligible.</p>	None required.	LS
<b>J. Energy</b>		
<p><b>J.1:</b> Development consistent with the Land Use and Transportation Element would result in a marginal increase in energy consumption.</p>	None required.	LS
<b>K. Geology and Seismicity</b>		
<p><b>K.1:</b> Adoption of the Plan could result in development on existing soil conditions at various locations throughout the City that could cause structural damage to new and existing buildings unless properly constructed.</p>	None required.	LS
<p><b>K.2:</b> Adoption of the Plan could result in development of many areas that are subject to geologic hazards including steep slopes, high erosion potential, and landsliding and mudsliding.</p>	None required.	LS

LS = Less than Significant



**TABLE S-1 (Continued)**  
**SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Significant Impact	Mitigation Measures	Significance After Mitigation
<b>B. LESS THAN SIGNIFICANT IMPACTS</b>		
<b>K.3:</b> Adoption of the Plan would result in development that requires grading and earthmoving activities. Grading during construction of individual projects in hillside areas could increase the potential for erosion. This could cause clogging of local culverts, decrease downstream channel capacity, and degrade water quality.	None required.	LS
<b>K.4:</b> In the event of an earthquake, damage from surface fault rupture could affect structures, foundations, and underground utilities that could be developed as a result of Plan adoption.	None required.	LS
<b>K.5:</b> In the event of an earthquake, damage from strong ground shaking or ground failure (liquefaction, densification, or landsliding) could affect structures, foundations, and underground utilities that could be developed as a result of Plan adoption. Human injury and life also could be risked.	None required.	LS
<b>L. Noise</b>		
<b>L.1:</b> Implementation of the proposed Land Use and Transportation Element would increase noise levels along streets throughout the City.	None required.	LS
<b>L.2:</b> Proposed General Plan map changes would redesignate some segments of major transportation corridors from commercial to urban density residential uses, which could pose noise compatibility problems for residential uses.	None required.	LS

LS = Less than Significant

**TABLE S-1 (Continued)**  
**SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Significant Impact	Mitigation Measures	Significance After Mitigation
<b>B. LESS THAN SIGNIFICANT IMPACTS</b>		
<b>L.6:</b> Proposed General Plan map changes could allow development of light manufacturing, wholesale, business, commercial or mixed uses in areas designated for "Housing Business Mix," posing potential future noise compatibility problems.	None required.	LS
<b>L.10:</b> Future cumulative noise levels along downtown streets could increase to levels that are considered conditionally acceptable for retail commercial, office, and residential uses.	None required.	LS
<b>L.12:</b> Development of projects in the Coliseum Showcase District would result in noise increases along local roadways serving the proposed project.	None required.	LS
<b>L.13:</b> Depending on proximity of future development to I-880 and selected roadways in the Coliseum area, noise levels could be conditionally acceptable for retail commercial or office uses.	None required.	LS
<b>M. <u>Hazardous Materials</u></b>		
<b>M.1:</b> Proposed land use changes for the Central Business District, Military Bases, Coliseum Area, and BART Transit Villages include a change to mixed uses that may allow housing as well as commercial operations that may use of hazardous materials. In addition, land use changes within the transit corridors would allow commercial land uses transitioning to urban residential uses.	None required.	LS

LS = Less than Significant

**TABLE S-1 (Continued)**  
**SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Significant Impact	Mitigation Measures	Significance After Mitigation
<b>B. LESS THAN SIGNIFICANT IMPACTS</b>		
<b>M.2:</b> Adoption of the proposed Land Use and Transportation Element could encourage new business and expansion of existing businesses within the areas designated for change, with associated potential increases in the quantities of hazardous substances used, stored and transported, increasing the potential for accidents or spills and increasing the potential for exposure to workers, the public and the environment.	None required.	LS
<b>M.3:</b> Adoption of the proposed Land Use and Transportation Element would increase the potential for demolition and renovation activities within the areas designated for change. Many of these buildings could contain hazardous building materials and demolition or renovation could result in exposure to hazardous building materials, such as asbestos, lead, mercury or PCBs, with associated public health concerns.	None required.	LS
<b>M.4:</b> Adoption of the proposed Land Use and Transportation Element would increase the potential for construction activities within the areas designated for change, which could increase the likelihood of encountering contaminated soil or groundwater and potentially expose workers and the community to hazardous substances.	None required.	LS
<b><u>O. Consistency with Adopted Plans and Policies</u></b>		
<b>O.1:</b> The proposed Land Use and Transportation Element would be consistent with federal policies and programs.	None required.	LS

LS = Less than Significant

**TABLE S-1 (Continued)**  
**SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES**

Significant Impact	Mitigation Measures	Significance After Mitigation
<b>B. LESS THAN SIGNIFICANT IMPACTS</b>		
<b>O.2:</b> The proposed Land Use and Transportation Element would be consistent with state policies and programs.	None required.	LS
<b>O.4:</b> The proposed Land Use and Transportation Element would be consistent with the policies and programs of adjacent jurisdictions.	None required.	LS

LS = Less than Significant

**APPENDIX B**  
**ASSESSOR'S PARCEL NUMBERS AND OWNERSHIP**

**Table 1: Existing Uses, Housing Units and Employment – Block Project 1<sup>a</sup>**

Assessor's Parcel Number (APN)	Owner <sup>a</sup>	Use <sup>b</sup>	Occupancy Status <sup>c</sup>	Parcel Size in Square Feet <sup>a</sup>	Building Size in Square Feet <sup>a</sup>	Estimated Employment <sup>d</sup>
008-0644-015-00 through 017	Forest City	Vacant lot	Vacant	10,560	0	0
008-0644-018-00 through 019	Oakland Redevelopment Agency	Vacant lot	Vacant	4,840	0	0
008-0644-020-00 through 021	Feldstein, Kenneth D.	Commercial – Residential Hotel (Single Room Occupancy, 18 units) and Bar	Occupied Vacant	7,473	9,803 (18 units)	0
008-0644-022-00	Oakland Redevelopment Agency	Commercial - Ground Floor Residence - Second Floor (1 unit)	Vacant Vacant	2,875	3,160 (0 units)	0
008-0644-023-00	Schwychart, WR	Commercial - Ground Floor Residence - Second Floor (2 units)	Vacant Vacant	5,060	3,863 (0 units)	0
008-0644-024-00	Oakland Redevelopment Agency	Commercial – Restaurant	Occupied	1,813	449	3
008-0644-045-01	Oakland Redevelopment Agency	Commercial – Office and associated surface parking	Occupied	8,500	3,400	7
008-0644-031-00 through 033	Oakland Redevelopment Agency	Commercial - Office and associated surface parking	Occupied	5,667	1,971	5
008-0644-034-00 through 035	Oakland Redevelopment Agency	Commercial – Office and associated parking	Occupied	3,966	1,621	4

<sup>a</sup> The assessor's parcel numbers for project Block 1, begin at 008-0643-010-00 at the southeast corner of the block and increase numerically counter-clockwise, with the exception of lot 45, which falls between lots 24 and 32.

<sup>b</sup> Source: Alameda County Assessor's files.

<sup>c</sup> Source: Alameda County Assessor's files and site visits by Hausrath Economic Group.

<sup>d</sup> Source: Site visit by LSA Associates, July 8, 2003.

<sup>e</sup> Source: Hausrath Economic Group.

**Table 2: Existing Uses, Housing Units and Employment – Block Project 2<sup>a</sup>**

Assessor's Parcel Number (APN)	Owner <sup>a</sup>	Use <sup>b</sup>	Occupancy Status <sup>c</sup>	Parcel Size in Square Feet <sup>a</sup>	Building Size in Square Feet <sup>a</sup>	Estimated Employment <sup>d</sup>
008-0643-006-00	Feldstein, Isadore Etal	Commercial – Light Industrial and Residential Hotel (Single Room Occupancy, 15 units)	Occupied Occupied	5,620	9,267 (15 units)	3
008-0643-001-01 (western portion)	Sears Development Co.	Parking garage	Occupied	64,873	160,883	2

<sup>a</sup> The assessor's parcel numbers for project Block 1, begin at 008-0643-010-00 at the southeast corner of the block and increase numerically counter-clockwise, with the exception of lot 45, which falls between lots 24 and 32.

<sup>b</sup> Source: Alameda County Assessor's files.

<sup>c</sup> Source: Alameda County Assessor's files and site visits by Hausrath Economic Group.

<sup>d</sup> Source: Site visit by LSA Associates, July 8, 2003.

<sup>e</sup> Source: Hausrath Economic Group.

**Table 3: Existing Uses, Housing Units and Employment – Block Project 3<sup>a</sup>**

Assessor's Parcel Number (APN)	Owner <sup>a</sup>	Use <sup>b</sup>	Occupancy Status <sup>c</sup>	Parcel Size in Square Feet <sup>a</sup>	Building Size in Square Feet <sup>a</sup>	Estimated Employment <sup>d</sup>
008-0644-001-01 through 009 and 008-0644-039-01 through 044, plus Block 1 parcels 008-0644-010-00 through 014	Oakland Redevelopment Agency	Surface parking	Occupied	70,830	0	0
008-0644-036-00 through 038	Revelli, John M, Marie A.; Chungkei, Fung T.	Commercial – Auto repair garage and associated parking	Occupied	6,495	1,971	15

<sup>a</sup> The assessor's parcel numbers for project Block 1, begin at 008-0643-010-00 at the southeast corner of the block and increase numerically counter-clockwise, with the exception of lot 45, which falls between lots 24 and 32.

<sup>b</sup> Source: Alameda County Assessor's files.

<sup>c</sup> Source: Alameda County Assessor's files and site visits by Hausrath Economic Group.

<sup>d</sup> Source: Site visit by LSA Associates, July 8, 2003.

<sup>e</sup> Source: Hausrath Economic Group.

**Table 4: Existing Uses, Housing Units and Employment – Block Project 4<sup>a</sup>**

Assessor's Parcel Number (APN)	Owner <sup>a</sup>	Use <sup>b</sup>	Occupancy Status <sup>c</sup>	Parcel Size in Square Feet <sup>a</sup>	Building Size in Square Feet <sup>a</sup>	Estimated Employment <sup>d</sup>
008-0643-001-0 1 (eastern portion)	Sears Development Co.	Sears Auto Center and parking	Occupied	68,000	8,000	22

<sup>a</sup> The assessor's parcel numbers for project Block 1, begin at 008-0643-010-00 at the southeast corner of the block and increase numerically counter-clockwise, with the exception of lot 45, which falls between lots 24 and 32..

<sup>b</sup> Source: Alameda County Assessor's files.

<sup>c</sup> Source: Alameda County Assessor's files and site visits by Hausrath Economic Group.

<sup>d</sup> Source: Site visit by LSA Associates, July 8, 2003.

<sup>e</sup> Source: Hausrath Economic Group.

**Table 5: Existing Uses, Housing Units and Employment – Block Project 5<sup>a</sup>**

Assessor's Parcel Number (APN)	Owner <sup>a</sup>	Use <sup>b</sup>	Occupancy Status <sup>c</sup>	Parcel Size in Square Feet <sup>a</sup>	Building Size in Square Feet <sup>a</sup>	Estimated Employment <sup>d</sup>
008-0642-005-01	Oakland Redevelopment Agency	Vacant lot	Vacant	5,900	0	0
008-0642-005-02	Oakland Redevelopment Agency	Vacant lot	Vacant	5,003	0	0
008-0642-006-00 through 009	Oakland Redevelopment Agency	Vacant lot	Vacant	18,041	0	0
008-0642-010-01	Oakland Redevelopment Agency	Vacant lot	Vacant	9,900	0	0

<sup>a</sup> The assessor's parcel numbers for project Block 1, begin at 008-0643-010-00 at the southeast corner of the block and increase numerically counter-clockwise, with the exception of lot 45, which falls between lots 24 and 32.

<sup>b</sup> Source: Alameda County Assessor's files.

<sup>c</sup> Source: Alameda County Assessor's files and site visits by Hausrath Economic Group.

<sup>d</sup> Source: Site visit by LSA Associates, July 8, 2003.

<sup>e</sup> Source: Hausrath Economic Group.



**Table 6: Existing Uses, Housing Units and Employment – Block Project 6<sup>a</sup>**

Assessor's Parcel Number (APN)	Owner <sup>a</sup>	Use <sup>b</sup>	Occupancy Status <sup>c</sup>	Parcel Size in Square Feet <sup>a</sup>	Building Size in Square Feet <sup>a</sup>	Estimated Employment <sup>d</sup>
008-0642-002-00 through 004	Oakland Redevelopment Agency	Surface parking	Occupied	29,500	0	0
008-0642-012-00 through 015	Oakland Redevelopment Agency	Surface parking	Occupied	23,600	0	0

<sup>a</sup> The assessor's parcel numbers for project Block 1, begin at 008-0643-010-00 at the southeast corner of the block and increase numerically counter-clockwise, with the exception of lot 45, which falls between lots 24 and 32.

<sup>b</sup> Source: Alameda County Assessor's files.

<sup>c</sup> Source: Alameda County Assessor's files and site visits by Hausrath Economic Group.

<sup>d</sup> Source: Site visit by LSA Associates, July 8, 2003.

<sup>e</sup> Source: Hausrath Economic Group.

**Table 7: Existing Uses, Housing Units and Employment – Block Project 7<sup>a</sup>**

Assessor's Parcel Number (APN)	Owner <sup>a</sup>	Use <sup>b</sup>	Occupancy Status <sup>c</sup>	Parcel Size in Square Feet <sup>a</sup>	Building Size in Square Feet <sup>a</sup>	Estimated Employment <sup>d</sup>
008-0645-001-02	JKM Properties	Commercial – Newspaper	Occupied	14,857	9,839	28
008-0645-004-00 through 005	Sampson	Commercial – Retail and associated parking	Occupied	10,267	3,860	9
008-0645-006-00	Navlets CX	Commercial – Ground Floor Residence - Second Floor (4 units)	Vacant Vacant	4,500	6,337 (0 units)	0
008-0645-007-00	Navlets CX	Residence (4 units)	Vacant	2,967	2,890 (0 units)	0
008-0645-009-01	Culinary Workers Alliance 31	Institutional – Lodgehall or clubhouse	Occupied	11,623	17,200	25
008-0645-028-05	Unity Health Care Workers CX	Commercial – Office	Occupied	16,607	25,777	64
008-0645-033-01	Commercial Industrial Supply Company	Commercial – Office	Occupied	26,930	15,400	51
008-0645-035-00	Navlets CX	Commercial	Vacant	10,627	13,083	0

<sup>a</sup> The assessor's parcel numbers for project Block 1, begin at 008-0643-010-00 at the southeast corner of the block and increase numerically counter-clockwise, with the exception of lot 45, which falls between lots 24 and 32.

<sup>b</sup> Source: Alameda County Assessor's files.

<sup>c</sup> Source: Alameda County Assessor's files and site visits by Hausrath Economic Group.

<sup>d</sup> Source: Site visit by LSA Associates, July 8, 2003.

<sup>e</sup> Source: Hausrath Economic Group.

**Table 8: Existing Uses, Housing Units and Employment – Block Project 8<sup>a</sup>**

Assessor's Parcel Number (APN)	Owner <sup>a</sup>	Use <sup>b</sup>	Occupancy Status <sup>c</sup>	Parcel Size in Square Feet <sup>a</sup>	Building Size in Square Feet <sup>a</sup>	Estimated Employment <sup>d</sup>
008-0649-009-00 through 010	Hahn	Surface parking	Occupied	20,225	0	0

<sup>a</sup> The assessor's parcel numbers for project Block 1, begin at 008-0643-010-00 at the southeast corner of the block and increase numerically counter-clockwise, with the exception of lot 45, which falls between lots 24 and 32.

<sup>b</sup> Source: Alameda County Assessor's files.

<sup>c</sup> Source: Alameda County Assessor's files and site visits by Hausrath Economic Group.

<sup>d</sup> Source: Site visit by LSA Associates, July 8, 2003.

<sup>e</sup> Source: Hausrath Economic Group.

**Table 9: Existing Uses, Housing Units and Employment – Block Project 9<sup>a</sup>**

Assessor's Parcel Number (APN)	Owner <sup>a</sup>	Use <sup>b</sup>	Occupancy Status <sup>c</sup>	Parcel Size in Square Feet <sup>a</sup>	Building Size in Square Feet <sup>a</sup>	Estimated Employment <sup>d</sup>
008-048-011-03	Hahn	Commercial - Restaurant	Occupied	21,000	2,115	8

<sup>a</sup> The assessor's parcel numbers for project Block 1, begin at 008-0643-010-00 at the southeast corner of the block and increase numerically counter-clockwise, with the exception of lot 45, which falls between lots 24 and 32.

<sup>b</sup> Source: Alameda County Assessor's files.

<sup>c</sup> Source: Alameda County Assessor's files and site visits by Hausrath Economic Group.

<sup>d</sup> Source: Site visit by LSA Associates, July 8, 2003.

<sup>e</sup> Source: Hausrath Economic Group.

**APPENDIX C**  
**COMPREHENSIVE LIST OF PLANNED PROJECTS**  
**IN DOWNTOWN OAKLAND**

**OAKLAND CUMULATIVE GROWTH SCENARIO  
ASSUMPTIONS FOR HOUSING PROJECTS OUTSIDE DOWNTOWN / OAKLAND CENTRAL  
UPTOWN PROJECT EIR - MAY 2003**

/a/	Project	Time Period	Change /b/	Oak TAZ	CMA TAZ	Planning District	OC/DT Subarea	Units	House Holds /c/	Location	Status /d/	Comments/Status /e/
<b>PROJECTS TO BE COMPLETED 2000 - 2005 (Post Census 2000)</b>												
x	Coliseum Gardens	1		125	125	CE		117	115	6722 Olmstead	4	Predevelopment 7/1/02; HUD HOPE VI; 480 new units to replace 188 (178+10) existing; assume 117 new in Phase I by 2005
xx	Coliseum Gardens	1		125	125	CE		(178)	(175)	6722 Olmstead	4	Predevelopment 7/1/02; HUD HOPE VI; 480 new units to replace 188 (178+10) existing; assume 178 demolition by 2005
x	Wang/Citizens	1		125	125	CE		2	2	901 70th Av. & 1088 71st Ave.	4	In DDA negotiations 7/1/02
	Bancroft Senior Homes	1		581	581	CE		61	60	2320-2320B 55th Ave.	1	Completed 2002; senior housing
x	Wang/Citizens	1		584	584	CE		1	1	3214 Courtland Ave.	4	In DDA negotiations 7/1/02
x	International Boulevard (RCD - 2 sites)	1		587	587	CE		29	28	6600 Int'l/1406 Seminary	2	Under construction 7/1/02
x	International Boulevard Phase II	1		587	587	CE		22	21	6006 International	2	Under construction 7/1/02; 2 units replaced by 24 new units
	Foothill Family Apts.	1		626	626	CE		66	65	Foothill bet. 68th + 69th	2	Under construction 7/1/02
x	Wang/Citizens	1		135	135	EH		11	11	Various sites on Golf Links Rd.	4	In DDA negotiations 7/1/02
x	Toler Heights	1		136	136	EH		6	6	98th Ave. @ MacArthur	4	DDA complete 7/1/02
x	Durant Square	1		139	139	EH		264	253	International & Durant/105th	2	In addition, 20 existing LW units; under construction 7/1/02
	Allen Temple Arms IV	1		600	600	EH		24	24	7607 International	1	Completed 2001; Disabled/HIV housing
x	Habitat/82nd Ave.	1		602	602	EH		3	3	1419, 1425, & 1431 82nd Ave.	1	Completed 2002
x	Wang Infill	1		614	614	EH		1	1	1226 94th Ave.	2	Under construction 7/1/02
	Allen Temple Arms III	1		615	615	EH		50	49	10121 International	1	Completed 2001; senior housing
x	Habitat Village	1		617	617	EH		40	39	350-360, 377 & 383 105th Ave.	1	Completed 2001
x	Wang	1		741	600	EH		2	2	1063 82nd Ave.	1	Completed 2002
	Palm Villas	1		758	137	EH		78	76	MacArthur (90th - 94th)	2	Under construction 7/1/02
	Fruitvale BART Transit Village	1		556	556	FV		47	46	3301-3401 E. 12th St.	2	Under construction 7/1/02
x	Water Park Lofts	1		621	621	FV		27	26	2875 Glascock	2	Under construction 7/1/02
x	Derby/Live-Work	1		621	621	FV		34	33	400-450 Derby St.	3	Approved 7/1/02; adaptive reuse
x	Glascock/Lofts	1	T	621	621	FV		100	96	Glascock/Derby (2 blocks)	3	Approved 2003
x	Wang/Citizens	1		113	113	LH		1	1	2849 Kitchener Ct.	4	In DDA negotiations 7/1/02
x	Single lot infill	1	N	51	51	NH		8	8		7	
x	Single lot infill	1	N	52	52	NH		20	19		7	
x	Single lot infill	1	N	53	53	NH		3	3		7	
x	Single lot infill	1	N	79	79	NH		4	4		7	
x	Single lot infill	1	N	511	511	NH		20	19		7	
x	Single lot infill	1	N	512	512	NH		4	4		7	
x	MLK Plaza	1	N	42	42	NO		11	11	Aileen, Dover, and 58th	2	Under construction 7/1/02
x	Wang/Citizens	1	N	48	48	NO		1	1	4100 MLK Jr. Way	4	In DDA negotiations 7/1/02
x	Wang/Citizens	1	N	440	440	NO		3	3	1027 62nd St.	4	In DDA negotiations 7/1/02
x	Wang/Citizens	1	N	441	441	NO		2	2	62nd St. @ Marshall St.	4	In DDA negotiations 7/1/02
x	Fabco Residential Project / Pulte Homes	1	N	441	441	NO		46	44	66th/67th near San Pablo	5	In both Oakland and Emeryville; assumes half of 92 units in Oakland
x	Bakery Lofts/Remar Lofts	1		454	454	NO		30	29	964/976 46th St.	1	Completed 2002; 30 units in Oak., more in Emeryville
x	Green City Lofts	1		454	454	NO		31	30	1007 41st St.	3	31 units in Oakland; 62 total units; Approved 2002
x	Flecto Project	1		454	454	NO		34	33	47th + Adeline	2	34 units in Oakland; 79 total units; under construction 7/1/02
x	Wang/Citizens	1	N	454	454	NO		2	2	938 46th St.	4	In DDA negotiations 7/1/02
	West Street Rehab	1		456	456	NO		3	3	3927 West Street	1	Completed 2000
	Piedmont Ave. Lofts	1		631	631	NO		19	18	40th & Broadway	1	Completed 2001
x	Lakeview Court	1		96	96	SA		18	17	E. 18th St. & Alhol	1	Completed 2002

/a/	Project	Time Period	Change /b/	Oak TAZ	CMA TAZ	Planning District	OC/DT Subarea	Units	House Holds /c/	Location	Status /d/	Comments/Status /e/
x	Evergreen Annex/Irene Cooper Terrace	1		537	537	SA		40	39	1218 2nd Ave.	1	Completed 2000; senior housing
x	Alta Villa	1		114	114	SH		22	22	Redwood Rd. @ Crestmont Dr.	2	Under construction 7/1/02
x	Bayview Crest	1		575	575	SH		8	8	8211 Skyline Circle	2	Under construction 7/1/02
x	San Pablo Affordable Senior Housing	1		58	58	WO		65	64	3255 San Pablo bet 32nd + 34th	3	Approved 2001
x	Mandela Gateway/OHA	1		61	61	WO		(49)	(49)	Mandela + 7th	4	Replaces Westwood Gardens
x	Mandela Gateway	1		61	61	WO		74	74		4	Predevelopment 2002; funded affordable project
	Adeline Street Lofts	1		63	63	WO		38	37	2320-2340 Adeline	1	Completed 2002; conversion of non-residential
x	Mandela Gateway	1		65	65	WO		113	113	Mandela + 7th	4	Predevelopment 2002; funded affordable project
x	Acorn 1, 2, 3 /g/	1		65	65	WO		71	71	8th/10th/Filbert/Union	1	Completed 2000; after 2000 Census
x	Acorn 1, 2, 3 /g/	1		66	66	WO		77	77	8th/10th/Filbert/Union	1	Completed 2000; after 2000 Census
x	Bayporte Village /g/	1		66	66	WO		64	64	8th/10th/Market	1	Completed 2000; after 2000 Census
x	Magnolia Row	1		473	473	WO		36	35	3221 Magnolia St.	1	Phase I completed 2002 (26 units)
x	West Clawson Lofts	1		473	473	WO		28	27	3240 Peralta	1	School reuse; completed
x	Precision Dye/Live-Work	1		474	474	WO		37	36	Hanna + 32nd	3	Approved 2001
x	Bridge/Linden Court	1		478	478	WO		79	77	1089 26th St. near McClymonds	2	Low-income; under construction 2002
x	Bridge/Chestnut Court	1		478	478	WO		87	85	2240 Chestnut St. at W. Grand	2	Hope IV project; under construction 2002
x	Bridge/Linden Court + Chestnut Court	1		478	478	WO		(83)	(81)		2	Housing removed for above projects
x	West Grand Lofts	1		478	478	WO		19	18	850 West Grand Ave.	1	Live-work development; Completed 2002
	Peralta Studios/live-work	1		791	476	WO		41	39	2121 Peralta at W. Grand	1	Converted PG&E facility; completed 2000
	<b>PROJECTS TO BE COMPLETED 2000 - 2005 TOTAL</b>							<b>1,834</b>	<b>1,789</b>			
	<b>PROJECTS TO BE COMPLETED 2005 - 2010</b>											
xx	Coliseum Gardens	2		125	125	CE		363	355	6722 Olmstead	4	Predevelopment 7/1/02; HUD HOPE VI; 480 new units total to replace 188 (178+10) existing; assume Phase II-V complete by 2010
xx	Coliseum Gardens	2		125	125	CE		(10)	(10)	6722 Olmstead	4	HUD HOPE VI; 480 new units replace 188 (178+10) existing; assume 10 demolished for Phases II-V
x	5825 Foothill	2		581	581	CE		30	29	5825 Foothill	4	In site acquisition for affordable project as of 7/1/02
x	AACWA-homeownership	2	T	589	589	CE		1	1	1191 72nd Ave.	4	Predevelopment 7/1/02; funded affordable project
x	AACWA-homeownership	2	T	590	590	CE		1	1	1180 60th Ave.	4	Predevelopment 7/1/02; funded affordable project
x	Eastmont Court	2	T	625	625	CE		19	19	6850 Foothill Blvd.	4	Predevelopment 7/1/02; HUD 811 funds
x	Horizon Townhomes	2	T	136	136	EH		18	18	98th/MacArthur Ave.	4	Predevelopment 7/1/02; funded affordable project
x	10211 Byron	2		138	138	EH		50	49	10211 Byron	4	In site acquisition for affordable project as of 7/1/02
x	AACWA-homeownership	2	T	600	600	EH		1	1	1266 79th Ave.	4	Predevelopment 7/1/02; funded affordable project
x	AACWA-homeownership	2	T	616	616	EH		1	1	10628 Pearmain Ave.	4	Predevelopment 7/1/02; funded affordable project
x	10900 Edes	2		617	617	EH		20	20	10900 Edes Ave.	4	In site acquisition for affordable project as of 7/1/02
x	Leola Terrace Phase II	2	T	758	137	EH		4	4	90th Ave. @ MacArthur	4	Predevelopment 7/1/02; funded affordable project
x	1091 Calcot	2		105	105	FV		73	72	1091 Calcot	4	In site acquisition for affordable project as of 7/1/02
x	Fruitvale Ave. Homes	2	T	110	110	FV		4	4	2662 Fruitvale Ave.	4	Predevelopment 7/1/02; funded affordable project
x	2946 Int'l. Blvd.	2		554	554	FV		54	53	2946 Int'l. Blvd.	4	In site acquisition for affordable project as of 7/1/02
x	AACWA-homeownership	2	T	555	555	FV		1	1	1230 31st Ave.	4	Predevelopment 7/1/02; funded affordable project
x	Fruitvale BART Transit Village	2		556	556	FV		100	96	BART parking lot	6	Later phase of Transit Village project
x	AACWA-homeownership	2	T	566	566	FV		2	2	1601 39th Ave. & 4116 E. 16th st.	4	Predevelopment 7/1/02; funded affordable project
x	Ford Street Project	2		621	621	FV		64	61	3041 Ford at Lancaster	5	Predevelopment 7/1/02
x	Calaveras St.	2		116	116	LH		65	64	4868, 4858, 4862 Calaveras	4	In site acquisition for affordable project as of 7/1/02
x	Single lot infill	2	N	51	51	NH		5	5		7	
x	Single lot infill	2	N	52	52	NH		10	10		7	

/a/	Project	Time Period	Change /b/	Oak TAZ	CMA TAZ	Planning District	OC/DT Subarea	Units	House Holds /c/	Location	Status /d/	Comments/Status /e/
x	Single lot infill	2	N	53	53	NH		2	2		7	
x	Single lot infill	2	N	79	79	NH		2	2		7	
x	Single lot infill	2	N	511	511	NH		10	10		7	
x	Single lot infill	2	N	512	512	NH		2	2		7	
	Downs Memorial	2	T/C	44	44	NO		17	17	1027 60th St.	4	Predevelopment 7/1/02; funded affordable project
x	North Oakland Infill	2		48	48	NO		2	2	Units on MLK, 42nd, 43rd, and 53rd St.	7	Housing Oppt'y Site NO-2-AFF
x	North Oakland Infill	2	N	438	438	NO		2	2	Units on MLK, 42nd, 43rd, and 53rd St.	7	Housing Opportunity Site NO-2-AFF
x	Sister Thea Bowman Manor II	2	N	440	440	NO		47	46	6400 San Pablo Ave.	4	Predevelopment 7/1/02; funded affordable project
x	North Oakland Infill	2		456	456	NO		2	2	Units on MLK, 42nd, 43rd, and 53rd St.	7	Housing Oppt'y Site NO-2-AFF
x	1173 28th St.	2		99	99	SA		47	46	1173 28th St.	4	In site acquisition for affordable project as of 7/1/02
x	Keller Townhomes	2		574	574	SH		34	33	Keller bet. Greenbridge Dr. & Rilea Way	5	Predevelopment 7/1/02
x	Leona Quarry	2		574	574	SH		250	240	7100 Mountain Blvd.	3	Approved 2002
x	1662-1676 7th Street and 715 Campbell	2		60	60	WO		70	67	7th St. + Campbell St.	4	In site acquisition for affordable housing as of 2002
x	AACWA-homeownership	2	N	61	61	WO		1	1	1435 11th St.	4	Predevelopment 7/1/02; funded affordable project
x	AACWA-homeownership	2	N	61	61	WO		1	1	1507 Center St.	4	Predevelopment 7/1/02; funded affordable project
x	2001 Linden Street	2	T	64	64	WO		8	8	2001 Linden St.	4	In site acquisition for affordable housing as of 2002
x	Palm Court	2	T	65	65	WO		12	12	10th + Union	4	Predevelopment 2002; funded affordable project
x	Allied Arts	2	T	474	474	WO		14	13	32nd + Hanna	5	In application; predevelopment 2002
x	Live-work	2	T	474	474	WO		40	38	Hollis + 32nd to 34th	7	
x	Romax Iron Works Site/Lofts - LW and Resid'l	2		474	474	WO		150	144	Near Peralta + Hollis	7	
x	Live-work / Lofts	2		474	474	WO		45	43	Peralta + Hanna / Helen	7	Giambolini property or nearby
x	Alliance for West Oakland Transit Village	2		480	480	WO		55	53	5th + Mandela	5	Pre-application filed 2002; total of 110 units
x	Chase + Wood	2	T	794	477	WO		22	21	Chase + Wood	3	Approved 2001
	<b>PROJECTS TO BE COMPLETED 2005 - 2010 TOTAL</b>							<b>1,711</b>	<b>1,661</b>			
	<b>PROJECTS TO BE COMPLETED 2010 - 2020</b>											
x	Coliseum BART Station	3		125	125	CE		200	192	BART parking lot	6	Housing Opportunity Site /e/, in planning stage; total of 400 units
x	EO-33/Foothill	3		581	581	CE		34	33	5833 Foothill Blvd.	7	Housing Opportunity Site
x	EO-23/International	3		589	589	CE		12	12	7025 International Blvd.	7	Housing Opportunity Site
	Eastmont Town Center	3		625	625	CE		60	58	73rd and Bancroft	7	Housing Opportunity Site
x	EO-28/Foothill	3		626	626	CE		7	7	6850 Foothill Blvd.	7	Housing Opportunity Site
x	EO-26/Edes-Armistice Powell	3		130	130	EH		6	6	9507 Edes	4	Housing Opportunity Site; already purchased for affordable housing
x	EO-7/MacArthur	3		134	134	EH		9	9	7823 MacArthur Blvd.	7	Housing Opportunity Site
x	EO-13/International	3		347	347	EH		18	17	9000-9012 International Blvd.	7	Housing Opportunity Site
x	EO-21/International	3		600	600	EH		122	122	International + 73rd	7	Housing Opportunity Site
x	EO-18/International	3		602	602	EH		31	30	8000 International Blvd.	7	Housing Opportunity Site
x	EO-2/MacArthur	3		607	607	EH		7	7	9801-9849 MacArthur Blvd.	7	Housing Opportunity Site
x	EO-3/MacArthur	3		608	608	EH		5	5	9601 MacArthur Blvd.	7	Housing Opportunity Site
x	EO-4/MacArthur	3		608	608	EH		30	29	9439-9547 MacArthur Blvd.	7	Housing Opportunity Site
x	EO-25/MacArthur	3		608	608	EH		19	18	9451 MacArthur Blvd.	7	Housing Opportunity Site
x	EO-12/International	3		610	610	EH		33	32	9600-9628 International Blvd.	7	Housing Opportunity Site
x	EO-17/International	3		741	600	EH		38	36	8001-8023 International Blvd.	7	Housing Opportunity Site
x	EO-8/MacArthur	3		744	606	EH		32	31	7526-7540 MacArthur Blvd.	7	Housing Opportunity Site
x	90th & MacArthur	3		759	137	EH		40	39	MacArthur Blvd., 89th-91st	6	Development plans of nearby church

/a/	Project	Time Period	Change /b/	Oak TAZ	CMA TAZ	Planning District	OC/DT Subarea	Units	House Holds /c/	Location	Status /d/	Comments/Status /e/
x	EO-5/MacArthur	3		759	137	EH		20	19	8201-8237 MacArthur Blvd.	7	Housing Opportunity Site
x	EO-42/E. 22nd	3		102	102	FV		5	5	2202 E. 22nd St.	7	Housing Opportunity Site
x	Wattling St. Lofts	3		556	556	FV		130	125	Wattling st. @ 38th Ave.	5	Predevelopment 7/1/02; border TAZ 556 and 557
x	Fruitvale BART Transit Village	3		556	556	FV		100	96	BART parking lot	6	Later phase of Transit Village project
x	EO-51/MacArthur	3		570	570	FV		70	67	2819-2833 MacArthur Blvd.	7	Housing Opportunity Site
	Central Station Project Live/Work	3	T/C	476	476	HB		252	242	16th + Wood	6	Assumptions from OARB Redevelopment Project EIR
	Central Station Project Live/Work	3	T/C	792	477	HB		124	119	16th + Wood	6	Assumptions from OARB Redevelopment Project EIR
x	Lofts / infill	3	N	440	440	NO		40	38	In vicinity of Emeryville	7	
x	Lofts / infill	3	N	441	441	NO		40	38	In vicinity of Emeryville	7	
x	Lofts / infill	3	N	454	454	NO		30	29	In vicinity of Emeryville	7	
x	MLK/MacArthur BART senior homes	3		456	456	NO		50	49	3829, 3823 MLK	7	Sites owned by City; Housing Oppt'y Site NO-1-AFF
x	MacArthur BART transit village - west	3		456	456	NO		120	118	40th/MLK/Appar	7	BART-owned site, City-owned site and other properties nearby; Housing Oppt'y Site MATV-2 (West)
x	MacArthur BART transit village	3		457	457	NO		500	480	BART station area and Telegraph	5	Per June 2002 assumptions (a total of 700 housing units); Housing Oppt'y Site MATV-1 (East)
x	Channel Area	3		537	537	SA		250	240	Oak/5th Ave/Embarcadero/12th St.	7	Housing Opportunity Site DT-28
x	EO-45/E. 10th	3		538	538	SA		9	9	1000 E. 10th St. at 9th Ave; 1002, 920, 926 E. 10th	7	Housing Opportunity Site
x	EO-47/E. 15th St. + 14th Ave.	3		547	547	SA		13	12	E. 15th St. + 14th Ave.	7	Housing Opportunity Site
x	Leona Quarry	3		574	574	SH		227	218	7100 Mountain Blvd.	3	Approved 2002
x	Oak Knoll	3		630	630	SH		577	554	Mountain @ Sequoyah	6	Base Reuse
x	West Oakland Transit Village	3		61	61	WO		70	67	7th St./Chester to Peralta	7	Oppt. sites 5, 6, 7 or others
x	Lofts / Residential - West Grand	3		64	64	WO		96	92	West Grand at Market	7	Opportunity sites
x	Lofts / Live-Work / Residential	3		473	473	WO		65	62		7	Reuse and/or new construction
x	Live-work / Lofts	3		474	474	WO		35	34	Louise / Helen near 34th St.	7	Potential in area
x	Live-work / Lofts	3		474	474	WO		50	48	Hollis near 34th St.	7	Potential in area
x	Lofts / Residential - West Grand and nearby	3		478	478	WO		45	43	West Grand and nearby	7	Infill opportunities
x	Alliance for West Oakland Transit Village	3		480	480	WO		55	53	5th + Mandela	5	Pre-application filed 2002; total of 110 units
x	West Oakland Transit Village	3		480	480	WO		150	144	7th St./Mandela to Union	7	Oppt. sites 1, 2, 3 or others
x	West Oakland Transit Village	3		480	480	WO		75	72	7th + Union and nearby	7	Oppt. site 1 or others
x	Live-Work / Lofts	3		791	476	WO		60	58		7	Potential for more if allowed
	<b>PROJECTS TO BE COMPLETED 2010 - 2020 TOTAL</b>							<b>3,966</b>	<b>3,814</b>			
	<b>PROJECTS TO BE COMPLETED 2020 - 2025</b>											
x	Coliseum BART Station	4		125	125	CE		200	192	BART parking lot	6	Housing Opportunity Site /e/; in planning stage; total of 400 units
x	EO-24 / International	4	N	346	346	CE		21	20	7000-7016 International Blvd.	7	Housing Opportunity Site
x	EO-22 / International	4	N	589	589	CE		33	32	7101-7135 International Blvd.	7	Housing Opportunity Site
x	EO-20 / International	4	N	133	133	EH		37	36	7700-7744 International Blvd.	7	Housing Opportunity Site
x	EO-6 / MacArthur	4	N	134	134	EH		10	10	7951-7985 MacArthur Blvd.	7	Housing Opportunity Site
x	EO-1 / MacArthur	4	N	138	138	EH		15	14	10451 MacArthur Blvd.	7	Housing Opportunity Site
x	EO-10 / International	4	N	139	139	EH		17	16	10102 International Blvd.	7	Housing Opportunity Site
x	EO-19 / International	4	N	600	600	EH		48	46	7915-7991 International Blvd.	7	Housing Opportunity Site
x	EO-15 / International	4	N	601	601	EH		27	26	8603-8629 International Blvd.	7	Housing Opportunity Site
x	EO-11 / International	4	N	615	615	EH		16	15	9945-9959 International Blvd.	7	Housing Opportunity Site
x	EO-9 / International	4	N	616	616	EH		15	14	10507-10511 International Blvd.	7	Housing Opportunity Site
x	EO-14 / International	4	N	627	627	EH		15	14	8700 International Blvd.	7	Housing Opportunity Site



/a/	Project	Time Period	Change /b/	Oak TAZ	CMA TAZ	Planning District	OC/DT Subarea	Units	House Holds /c/	Location	Status /d/	Comments/Status /e/
x	EO-16 / International	4	N	627	627	EH		19	18	8332 International Blvd.	7	Housing Opportunity Site
x	Con Agra Site or nearby	4	N	100	100	FV		200	192		7	Opportunity Site
x	EO-43 / 23rd Ave.	4	N	101	101	FV		4	4	2141 23rd Ave.	7	Housing Opportunity Site
x	EO-44 / 23rd Ave.	4	N	102	102	FV		15	14	E. 23rd St. + 23rd Ave.	7	Housing Opportunity Site
x	EO-41 / Foothill	4	N	104	104	FV		10	10	2301 Foothill Blvd.	7	Housing Opportunity Site
x	EO-39 / Foothill	4	N	109	109	FV		7	7	3601 Foothill Blvd.	7	Housing Opportunity Site
x	EO-40 / 35th Ave.	4	N	109	109	FV		8	8	1750 35th Ave.	7	Housing Opportunity Site
x	EO-38 / Foothill	4	N	566	566	FV		8	8	3815 Foothill Blvd.	7	Housing Opportunity Site
x	EO-34 / Foothill	4	N	578	578	FV		8	8	5490 Foothill Blvd.	7	Housing Opportunity Site
x	EO-36 / Foothill	4	N	579	579	FV		22	21	4825 Foothill Blvd.	7	Housing Opportunity Site
x	EO-37 / Foothill	4	N	579	579	FV		27	26	4529 Foothill Blvd.	7	Housing Opportunity Site
x	EO-27 / Fairfax	4	N	581	581	FV		26	25	5318 Fairfax	7	Housing Opportunity Site
x	EO-35 / Foothill	4	N	581	581	FV		28	27	5310 + 5308 Fairfax; 5319 Foothill; 5323 Church	7	Housing Opportunity Site
x	EO-31 / Foothill	4	N	585	585	FV		20	19	6403 Foothill Blvd.	7	Housing Opportunity Site
x	EO-32 / Foothill	4	N	585	585	FV		12	12	6001 Foothill Blvd.	7	Housing Opportunity Site
x	Fruitvale Waterfront / Kennedy Tract	4	N	621	621	FV		100	96		7	
x	EO-29 / 68th Ave.	4	N	626	626	FV		23	22	2901 68th Ave.	7	Housing Opportunity Site
x	EO-30 / Foothill	4	N	626	626	FV		21	20	6620 Foothill Blvd.	7	Housing Opportunity Site
x	Lofts / infill residential	4	N	44	44	NO		40	38	In vicinity of Emeryville	7	
x	Lofts / infill residential	4	N	47	47	NO		40	38	In vicinity of Emeryville	7	
x	Lofts / infill residential	4	N	455	455	NO		40	38	In vicinity of Emeryville	7	
x	MacArthur BART transit village	4		457	457	NO		200	192	BART station area and Telegraph	5	Per June 2002 assumptions (a total of 700 housing units); Housing Oppty Site MATV-1 (East)
x	EO-46 / 8th Ave.	4	N	538	538	SA		21	20	1100 8th Ave. @ E. 11th St.	7	Housing Opportunity Site
x	EO-48 / International	4	N	539	539	SA		7	7	252 International Blvd @ 3rd Ave.	7	Housing Opportunity Site
x	EO-49 / 1st	4	N	539	539	SA		16	15	1420 1st Ave.	7	Housing Opportunity Site
x	Infill housing	4		57	57	WO		10	10	San Pablo and/or MLK	7	Selected smaller sites
x	Live-Work / Lofts	4		60	60	WO		50	48	In vicinity of Central Station project	7	Potential
x	Infill housing	4		471	471	WO		15	15	MLK and nearby	7	Selected smaller sites
x	Infill housing	4		472	472	WO		10	10	San Pablo	7	Selected smaller sites
x	Lofts / Live-Work / Residential	4		473	473	WO		35	34		7	Reuse and/or new construction
x	West Oakland Transit Village	4		480	480	WO		90	86	Mandela/5th or elsewhere	7	Oppt. site 4, or other sites
x	West Oakland Transit Village	4	N	480	480	WO		100	96	In vicinity of BART	7	Opportunity Site / Potential
x	LW, lofts, or housing	4		794	477	WO		25	24		7	Additional infill
<b>PROJECTS TO BE COMPLETED 2020 - 2025 TOTAL</b>								<b>1,711</b>	<b>1,643</b>			
<b>TOTAL 2000 - 2025</b>								<b>9,222</b>	<b>8,907</b>			

Notes:

/a/ 'X' in first column indicates updated assumptions compared to original 11/21/00 Cumulative Scenario. 'XX' indicates updated assumptions for Uptown Project EIR, May 2003.

/b/ Codes indicate change since 12/02 Scenario for West Oakland Redevelopment Project EIR. C = change in number of units and/or number of households. N = new project added to list. T = change in time period assumed for development and occupancy.

/c/ Households equal units multiplied by an assumed vacancy factor.

/d/ Status as of the end of 2002: 1 = completed; 2 = under construction; 3 = approved; 4 = affordable housing project in predevelopment; 5 = other projects in predevelopment; 6 = in planning or part of existing plan; 7 = other housing opportunity site.

/e/ Housing Opportunity Sites are those identified in Oakland's Draft Housing Element (September 2002). The numbers (e.g., DT-11) are those used in Housing Element tables.

// YWCA housing for CCAC students, Perkins Residential Care housing for people with Alzheimer's, and UC Berkeley student housing are treated as group quarters in the growth scenario.

/g/ The total units completed during 2000 were 293 for Acorn Parcels 1, 2, and 3, and 71 for Bayport Village, replacing 480 and 196 original units, respectively, that were removed by 2000.

/h/ Includes additional housing units and households in the downtown and rest of Oakland Central (OC) planning district as well as along the channel in TAZ 537 (SA).

/a/	Project	Time Period	Change /b/	Oak TAZ	CMA TAZ	Planning District	OC/DT Subarea	Units	House Holds /c/	Location	Status /d/	Comments/Status /e/

Source: City of Oakland; Hausrath Economics Group

**APPENDIX D**  
**POPULATION AND DEMOGRAPHIC DATA**

## **CUMULATIVE GROWTH SCENARIO FOR OAKLAND AS PREPARED FOR USE IN THE *UPTOWN PROJECT EIR***

This appendix describes the cumulative growth scenario used for environmental impact analysis purposes in the *Uptown Project EIR*. The scenario provides the future cumulative development context for Oakland, identified in terms of future employment, households, and population. Use of the scenario for analyzing the project's environmental impacts ensures that those impacts are appropriately considered as part of the cumulative context of future citywide and regional growth and development.

The need for developing the cumulative growth scenario is explained below, followed by a description of the approach and the chronology of scenario development and updates. Then, the updated cumulative scenario for Oakland used in this EIR is summarized, followed by comparisons with projections from the Association of Bay Area Governments (ABAG). The specifics of the scenario for downtown Oakland areas surrounding the Uptown Project are summarized next. The assumptions for growth in the rest of Alameda County and Bay Area region are then identified.

### **NEED FOR THE CUMULATIVE GROWTH SCENARIO**

The cumulative growth scenario for Oakland was developed primarily for use in the cumulative transportation analyses in Oakland EIRs. The growth scenario was originally prepared in 2000 after analyses indicated that the growth projections from ABAG as incorporated into the Alameda County Congestion Management Agency (CMA) travel demand model did not reflect the level of growth and development occurring in Oakland. Those projections also did not reflect the locations of growth for future development projects under construction, approved, proposed, and reasonably foreseeable for Oakland. Since the cumulative growth scenario for Oakland was originally developed, it continues to be updated and refined as needed for EIR analyses and planning efforts, and to incorporate newly released 2000 Census data and new projections series from ABAG. The cumulative growth scenario is now used to review and provide input for new ABAG projections and for updates to the land use database in the CMA travel model.

As of this EIR, the cumulative growth scenario for Oakland is now very similar to the most recent ABAG projections incorporated into the CMA travel model as updated in May 2003. However, Oakland's cumulative growth scenario continues to be used in EIR analyses and planning efforts as it provides more specificity about growth and development occurring in Oakland and can be updated as needed for EIR and planning purposes.

## **FORECAST-BASED APPROACH THAT INCORPORATES FORESEEABLE FUTURE DEVELOPMENT PROJECTS**

The cumulative growth scenario for Oakland was developed using a forecast-based approach, *i.e.*, an approach based on regional forecasts of economic activity and demographic trends. The cumulative growth scenario also considers recent and anticipated future development projects in Oakland as well as other changes in land use, employment, and population. Development projects and other changes are identified and updated based on input from City of Oakland and Port of Oakland staffs and on analysis of economic, demographic, and real estate market data and trends. Anticipated future development projects are identified and updated to include approved, proposed, and potential development projects reasonably foreseeable over the next 20 to 25 years.

The growth that could be accommodated by recent and expected future development projects and other changes in land use, employment, and population is evaluated within the context of regional economic and demographic trends and projections. The ABAG projections provide the reference for citywide and county totals for future years. The list of development projects and other changes provide the ability to relate individual projects to the citywide context. The locations of specific projects and development sites allow for refinements in the allocation of growth to subareas and traffic analysis zones (TAZs) within the city. Transportation analyses using the CMA's travel model require inputs at the TAZ level.

## **CHRONOLOGY OF SCENARIO DEVELOPMENT**

The cumulative growth scenario for Oakland was originally prepared and continues to be updated by Hausrath Economics Group (HEG), working closely with City of Oakland staff. The scenario was first completed in November 2000. Since that time, the scenario has been updated and refined for different parts of the City as needed for EIR analyses and planning efforts. It also has been updated to incorporate newly released 2000 Census data and new projections from ABAG. The following identifies the different updates that were completed prior to the scenario developed for this EIR:

- ◆ June 2001, updated scenario for *Metroport Project EIR*, focusing on updates in the Oakland Airport/Coliseum area;
- ◆ August 2001, updated scenario for *Leona Quarry Project EIR*, focusing on the area surrounding the Leona Quarry project;
- ◆ January 2002, updated scenario for *Oakland Army Base (OARB) Redevelopment Project EIR*, focusing on updates in the harbor and OARB redevelopment project area and adjacent parts of West Oakland;
- ◆ September 2002, 2000 Census data is incorporated into the land use database, along with future demographic factors consistent with the 2000 Census data, as provided by *ABAG Projections 2002*;

- ◆ September 2002, updated scenario for *Central City East (CCE) Redevelopment Project EIR*, focusing on updates in East Oakland, within and surrounding the redevelopment project area;
- ◆ Early December 2002, updated scenario for *Jack London Square Redevelopment Project EIR*, focusing on updates in the Jack London District of downtown Oakland including Jack London Square;
- ◆ Later December 2002, updated scenario for *West Oakland Redevelopment Project EIR*, focusing on updates in West Oakland, and parts of North Oakland within the redevelopment project area, and in adjacent blocks;
- ◆ Early February 2003, updated scenario for *Coliseum Gardens Project EIR*, focusing on the project and surrounding Coliseum BART station area; and
- ◆ January/February 2003, updated scenario to incorporate *ABAG Projections 2002* and to provide land use inputs for the CMA travel model update.

The updated cumulative growth scenario prepared for this EIR as of June 9, 2003, incorporates and builds on all of the updates listed above. In addition, for this EIR, changes were made to the citywide land use database to incorporate the Uptown Project as currently proposed and updated assumptions for other development in downtown Oakland areas surrounding the project.

## **UPDATED CUMULATIVE GROWTH SCENARIO FOR OAKLAND**

### **Cumulative Growth Scenario for Uptown Project EIR**

The cumulative growth scenario for Oakland identifies employment, households, and population. Employment is disaggregated into four types: service, retail, manufacturing, and other, as required for use in the Alameda County CMA travel model. The projections are allocated to the large number of traffic analysis zones identified throughout the city.<sup>1</sup> Future scenarios are developed for the years 2010 and 2025, consistent with the analysis years in the travel model. The cumulative growth scenario for Oakland includes a 2000 base year scenario, consistent with recently released 2000 Census data, although the CMA model does not include year 2000.

The Updated Cumulative Growth Scenario for Oakland prepared for the *Uptown Project EIR* is summarized in Table 1 (on next page). The scenario includes the Uptown Project.

Following the approach described earlier, analysis to develop the cumulative growth scenario for Oakland evaluated how the amount and type of growth represented by future development projects identified by the City and Port compared to the ABAG projections for Oakland. Other changes in land use, employment, and population also were accounted for. Other additions to employment and population included those resulting from increased occupancies of existing

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<sup>1</sup> The traffic analysis zones (TAZs) are Census Tracts or subdivisions of Census Tracts identified for transportation analysis purposes and used in the CMA travel demand model.

**TABLE 1  
UPDATED CUMULATIVE GROWTH SCENARIO  
FOR OAKLAND, AS OF JUNE 2003**

	2000 /a/	2010	2025	Growth, 2000-2025
Households	150,790	158,910	169,010	+18,220
Household Population /b/	392,310	417,120	434,560	+42,250
Total Population /b/	399,480	425,550	443,200	+43,720
Employed Residents /b/	174,740	194,040	225,680	+50,940
Total Employment	185,160	215,050	247,500	+62,340
Manufacturing	17,810	18,470	20,120	+2,310
Other /c/	74,040	84,400	93,500	+19,460
Retail	23,720	27,440	30,700	+6,980
Service	69,590	84,740	103,180	+33,590

/a/ Households, household population, total population, and employed residents are from the 2000 Census.

/b/ Projections for 2010 and 2025 incorporate changes in demographic characteristics of the population in the existing housing stock in Oakland as evidenced in persons per household and employed persons per household factors from ABAG *Projections 2002*. The demographic characteristics of residents of new housing to be built in Oakland by 2010 and 2025 are based on those same ABAG factors or are estimated using special factors that better reflect the anticipated population in new housing, for TAZs with little or no housing in 2000 of the types being built (as the ABAG factors are based on the existing population in 2000).

/c/ Includes employment in finance, insurance, real estate (FIRE); government; construction; transportation, communications, and utilities (TCU); wholesale; and agriculture and mining.

Source: Hausrath Economics Group based on approach and methodology described in this appendix.

buildings, the re-leasing of space vacated by existing businesses and government activities relocating to newly developed projects, the renovation of space that had previously sat vacant, and the conversion of space in existing buildings to new and more intensive uses. Reductions in employment and population included changes as a result of base closures, displacements by development projects, and the movement of some types of businesses out of the area due to increasing rents and land values as well as other factors. In addition, the cumulative growth scenario also incorporates changes in demographic characteristics of the population in the City's existing housing stock, consistent with the ABAG projections.

### **Comparison with CMA/ABAG Projections**

The Updated Cumulative Growth Scenario for Oakland is compared in Table 2 with the ABAG projections for Oakland as incorporated into the Alameda County CMA Travel Model for use in

EIR transportation analyses. The ABAG *Projections 2002* series provides the basis for the numbers in the CMA model at the time of the analysis for this EIR.<sup>2</sup>

The cumulative growth scenario for Oakland compares to the CMA/ABAG projections (*Projections 2002*) as follows:

- ◆ **Employment:** The economic activity and employment growth to be accommodated by identified major development projects and other anticipated changes in land use and employment are estimated to slightly exceed the employment growth for Oakland reflected in the CMA/ABAG projections for both the short term (2010) and the longer term (2025) futures. In 2025, the cumulative growth scenario includes about one percent more total employment in Oakland than anticipated by the CMA/ABAG projections.
- ◆ **Housing and Households:** Housing built in Oakland since the 2000 Census, housing currently under development in Oakland, and housing anticipated to be developed in the future will accommodate household growth similar to that reflected in the CMA/ABAG projections. Thus, total households in Oakland in 2025 are essentially the same for the cumulative growth scenario and the CMA/ABAG projections. The cumulative growth scenario expects somewhat more housing development in the near future, so that total households by 2010 are a little higher under the cumulative scenario compared to the CMA/ABAG projections.
- ◆ **Population:** Although housing and household growth are similar, the cumulative growth scenario shows slightly lower population growth in Oakland compared to the CMA/ABAG projections. The difference occurs because the cumulative growth scenario incorporates the demographic characteristics of new residents in the types of new housing being built in Oakland, in addition to existing population characteristics and overall demographic trends as reflected in the CMA/ABAG projections. Compared to overall population demographics, new households in the types of higher-density, new housing being built in Oakland, are generally smaller than average (fewer persons per household) and include proportionally more adults, many of whom are employed (more employed residents per household). Thus, by 2025, total household population in Oakland under the cumulative growth scenario is about two percent lower than under the CMA/ABAG projections, due to the specific demographic assumptions used for residents of the new housing. By incorporating specific demographic assumptions for residents in new housing along with the characteristics of residents in the existing housing stock and overall regional demographic

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<sup>2</sup> The recently updated Alameda County CMA model incorporating ABAG *Projections 2002* was released on May 14, 2003. In June 2003, ABAG released *Projections 2003: A Smart Growth Forecast*. Future updates to the CMA travel model to incorporate these newest ABAG projections are expected to occur in early- to mid-2004.



**TABLE 2**  
**CUMULATIVE GROWTH SCENARIO FOR UPTOWN PROJECT EIR**  
**AND CMA/ABAG PROJECTIONS FOR OAKLAND**

	2000	2010	2025	Growth 2000-2025
<u>Employment</u>				
Cumulative Growth Scenario /a/	185,160	215,050	247,500	+62,340
CMA/ABAG Projections 2002 /b/	-	213,820	245,060	+59,900
<u>Households</u>				
Cumulative Growth Scenario /a/	150,790	158,910	169,010	+18,220
CMA/ABAG Projections 2002 /b/	-	158,130	169,080	+18,290
<u>Population</u>				
Cumulative Growth Scenario /a/				
Household Population /c/	392,310	418,120	435,560	+43,250
Total Population	399,480	425,550	443,200	+43,720
CMA/ABAG Projections 2002 /b/				
Household Population	-	418,420	442,370	+50,060
Total Population	-	-	-	-
<u>Employed Residents</u>				
Cumulative Growth Scenario /a/	174,740	194,040	225,680	+50,940
CMA/ABAG Projections 2002 /b/	-	186,080	217,040	+42,300

/a/ Updated Cumulative Growth Scenario developed for *Uptown Project EIR*, prepared as of June 9, 2003 by Hausrath Economics Group, as described in this appendix.

/b/ ABAG Projections 2002, as included in the updated Alameda County CMA travel demand model released May 14, 2003. The CMA model does not include year 2000. Growth 2000-2025 for the CMA/ABAG Projections 2002 is calculated using 2000 as shown in the table for the Cumulative Growth Scenario.

/c/ Household population shown here for 2010 and 2025 includes the 1,000 students to reside in the student housing proposed for the Uptown Project. However, in the summaries of the growth scenario in other tables in this appendix, the students are counted as group quarters population and included in total population, but not household population. As the CMA/ABAG projections used in the CMA travel model do not include group quarters population or total population (combining household population and group quarters population), the student population is included with household population in this table so that the population analyzed in the transportation analysis can be compared with the CMA/ABAG projections. (The student population for the Uptown project was combined with household population for use in the CMA travel model as the model is not set up to separately accept group quarters population.)

Source: Hausrath Economics Group based on sources identified above, and as described further in this appendix.

trends, the methodology for the cumulative growth scenario builds on the ABAG projections to provide more locally-specific data.

- ◆ **Employed Residents:** The cumulative growth scenario anticipates somewhat more employed residents in Oakland compared to the CMA/ABAG projections, for two main reasons. First, Census data incorporated into the cumulative growth scenario show about three percent more employed residents in Oakland in 2000, compared to the ABAG projections (*P2002*), which were prepared before release of employed resident data from the 2000 Census. The higher number of employed residents in Oakland in 2000 (based on the 2000 Census data) also are included in future year totals for employed residents under the cumulative scenario. Second, the cumulative growth scenario incorporates the demographic characteristics of new residents in the types of new housing being built in Oakland, which generally include proportionally more residents who work, compared to demographic characteristics for the population overall (also see discussion under population above). Thus, by 2025, the cumulative growth scenario includes about four percent more employed residents in Oakland than anticipated by the CMA/ABAG projections.

The cumulative analysis in this EIR assumes the Updated Cumulative Growth Scenario for Oakland. This approach ensures that the cumulative effects of all locally anticipated growth and development can be evaluated within the EIR analysis period. This approach for cumulative analyses in Oakland EIRs was discussed with and accepted by the Alameda County CMA.

## **DOWNTOWN OAKLAND AREAS SURROUNDING THE UPTOWN PROJECT**

Attention was given to the cumulative growth scenario for traffic analysis zones (TAZs) in downtown Oakland areas, surrounding the Uptown Project. Growth and change in these areas are of particular interest for the cumulative traffic analysis. Analysis was done to review and update the projections for the surrounding area for use in the cumulative analyses for this EIR. The data for employment, households, and population for the surrounding area were summarized from prior growth scenarios, and evaluated and updated in light of recent changes in land uses and activities in the area, and of development projects and other anticipated changes identified by the City of Oakland and Hausrath Economics Group, at the time of this analysis. With these inputs, updated projections for the surrounding downtown area were developed for 2010 and 2025 for use in this EIR.

The updated growth scenario for the surrounding downtown area, including the project, is summarized in Table 3 (on the next page). The table shows numbers for Downtown Oakland (from Grand Avenue on the north to the Estuary on the south) and for the larger Oakland Central area including downtown and extending further to the north (to I-580 on the north and the Estuary on the south). A map showing the boundaries of these areas is included at the end of this appendix (see Figure 1). The surrounding downtown area includes the rest of the Uptown

district outside the project area as well as the following subareas or districts of downtown Oakland: the Kaiser Center area, City Center area, Old Oakland, Chinatown, the County Bldgs/MetroCenter/Laney area, and the Jack London District. Given the project's location at the northern end of downtown, parts of the larger Oakland Central area extending further to the north and east of the project also are relevant. The areas to the north and east include the Valdez area, Telegraph-Northgate area, Summit Medical area, Broadway Auto Row, and Adams Point.

<b>TABLE 3 CUMULATIVE GROWTH SCENARIO FOR DOWNTOWN OAKLAND/OAKLAND CENTRAL AREAS, INCLUDING THE PROJECT</b>				
	2000	2010	2025	Change 2000-2025
<u>Downtown Oakland /a/</u>				
Jobs	65,160	81,100	89,540	+24,380
Households	7,740	11,830	15,100	+7,360
Population	14,680	25,490	31,000	+16,320
Employed Residents	6,310	11,970	16,550	+10,240
<u>Oakland Central /b/</u>				
Jobs	78,640	95,130	103,990	+25,350
Households	18,040	22,710	27,360	+9,320
Population	32,190	44,650	52,510	+20,320
Employed Residents	16,370	23,240	30,510	+14,140
NOTE: The map in Figure 1 (at the end of this appendix) identifies Downtown Oakland and the larger Oakland Central area (including downtown).				
/a/ Bounded by Grand Avenue, Lake Merritt and the Channel, Oakland Estuary, and I-980 and Brush St.				
/b/ Bounded by I-580, Lake Merritt and the Channel, Oakland Estuary, and I-980 and Brush St.				
Source: <i>Cumulative Growth Scenario for Uptown Project EIR</i> , 6/9/03; City of Oakland; Hausrath Economics Group.				

The following summarizes the growth and change anticipated in the surrounding Downtown/Oakland Central area, as reflected in the cumulative growth scenario in Table 3. Employment and population for the Uptown Project are described in a separate appendix in this EIR.

- ◆ **Employment Growth in Surrounding Downtown/Oakland Central Area:**  
Substantial employment is projected for downtown Oakland in the future. Growth of office employment is anticipated for both private sector and

government office activities. Office growth is expected in major development projects as well as through ongoing renovations and conversions of older building space. Retail, hotel, service, cultural, and entertainment uses and activities also are anticipated to grow in downtown Oakland and to support employment growth there. Within the downtown area, the largest amounts of employment growth are expected in the City Center area, followed by employment growth in the Kaiser Center area, and by growth in the Jack London District. Employment growth also is projected for the Uptown District outside the project area, focused around the Broadway Corridor.

- ◆ **Household and Population Growth in Surrounding Downtown/Oakland Central Area:** Substantial growth of households and population also is expected in downtown Oakland. Higher-density housing development is projected to continue in infill projects on selected sites and in new downtown neighborhoods. A large amount of new housing development is already underway downtown. In addition to the Uptown Project, the larger amounts of new housing development are expected to continue to occur in the Jack London District, Old Oakland, the Valdez and Telegraph-Northgate areas (to the north of Grand Avenue), on infill sites in and around City Center, and in areas along the Channel linking Lake Merritt to the Estuary. Downtown/Oakland Central population growth also reflects changing demographic characteristics of the population in the existing housing stock, as reflected in demographic trends projected by ABAG. Overall, population is projected to double in the downtown Oakland area (Grand Avenue to the Estuary) by 2025, and to increase by over 60 percent and over 20,000 new residents in the larger Oakland Central area including downtown and areas to the north of Grand Avenue (I-580 to the Estuary).

Tables presented at the end of this appendix provide a more detailed version of the estimates and projections for the surrounding Downtown/Oakland Central area, and more background on assumptions. Table 4 (parts a. through f.) presents estimates and projections for all of the traffic analysis zones (TAZs) in downtown Oakland and the larger Oakland Central area. The data and projections include the growth associated with the project. (The subareas and TAZs within the Downtown/Oakland Central area are identified on the maps in Figures 1 and 2 at the end of this appendix.) Tables 5 and 6 list the development projects identified for the surrounding Downtown/Oakland Central area by the City of Oakland and Port of Oakland staffs. The lists include major projects under construction, approved and proposed projects, as well as potential projects under consideration and anticipated to be developed by 2025. In most cases, the project assumptions identified on the lists describe the new development; they do not identify existing uses and activities on development sites that would be removed for development, although the latter are accounted for in the cumulative growth scenario.

The projects on the lists for the Downtown/Oakland Central area all “fit” within the updated cumulative growth scenario summarized herein and used for the cumulative transportation analysis in this EIR. As explained earlier in this appendix, the scenario also includes other changes in land use and in employment and population besides those associated with

development of projects on the lists. Thus, the lists alone do not equate to the changes over time in the growth scenario.

The amounts of employment, household, and population growth reflected by the growth scenario, and those represented by the projects on the lists, are more important than the specific projects identified. It is to be expected that the projects on the lists will change over time, and some will be added while others will be deleted. The lists reflect the best information at the time of the analysis. The growth scenario itself can remain valid as changes occur over time in the specifics of the development projects anticipated for the surrounding area.

### **GROWTH IN THE REST OF ALAMEDA COUNTY AND BAY AREA REGION**

The growth scenario used for the cumulative transportation analysis for this EIR assumes growth in employment, households, and population as projected by *ABAG Projections 2002* and included in the recently updated CMA travel demand model for the rest of Alameda County and the Bay Area region outside of Oakland.<sup>3</sup>

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<sup>3</sup> As a part of this EIR, consultation was undertaken with the nearby City of Alameda to confirm that use of the recently updated CMA/ABAG land use/growth projections included in the updated CMA travel model would adequately capture anticipated growth, and that the City did not have an alternative scenario that should be used instead. City of Alameda staff confirmed the use of the CMA/ABAG projections and reported that the ABAG projections for Alameda are high and include more growth than anticipated locally. (Contact with Andrew Thomas, City of Alameda Planning Department on June 5, 2003.)

**APPENDIX F**  
**AIR QUALITY DATA**

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Forest 2010 NP9  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## I. SITE VARIABLES

U= .5 M/S                    Z0= 100. CM                    ALT= 6. (M)  
 BRG= WORST CASE            VD= .0 CM/S  
 CLAS= 7 (G)                VS= .0 CM/S  
 MIXH= 1000. M              AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 8.3 DEGREE (C)

## II. LINK VARIABLES

LINK DESCRIPTION	* X1	* Y1	* X2	* Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Castro NBA	* 11	* -150	* 11	* 0	* AG	2106	1.3	.0	10.0
B. Castro NBD	* 11	* 0	* 11	* 150	* AG	2106	1.3	.0	10.0
C. Castro NBL	* 0	* -150	* 0	* 0	* AG	263	1.3	.0	10.0
D. Castro SBA	* 0	* 150	* 0	* 0	* AG	0	1.3	.0	10.0
E. Castro SBD	* 0	* 0	* 0	* -150	* AG	159	1.3	.0	10.0
F. Castro SBL	* 0	* 150	* 0	* 0	* AG	0	1.3	.0	10.0
G. 18th EBA	* -150	* 0	* 0	* 0	* AG	0	1.3	.0	10.0
H. 18th EBD	* 0	* 0	* 150	* 0	* AG	0	1.3	.0	10.0
I. 18th EBL	* -150	* 0	* 0	* 0	* AG	0	1.3	.0	10.0
J. 18th WBA	* 150	* 4	* 0	* 4	* AG	1017	1.3	.0	10.0
K. 18th WBD	* 0	* 4	* -150	* 4	* AG	1280	1.3	.0	10.0
L. 18th WBL	* 150	* 0	* 0	* 0	* AG	159	1.3	.0	10.0
M. Castro NBAX	* 11	* -750	* 11	* -150	* AG	2369	1.3	.0	10.0
N. Castro NBDX	* 11	* 150	* 11	* 750	* AG	2106	1.3	.0	10.0
O. Castro SBAX	* -4	* 750	* -4	* 150	* AG	0	1.3	.0	10.0
P. Castro SBDX	* -4	* -150	* -4	* -750	* AG	159	1.3	.0	10.0
Q. 18th EBAX	* -750	* 0	* -150	* 0	* AG	0	1.3	.0	10.0

R. 18th EBDX	* 150	0	750	0	* AG	0	1.3	.0	10.0
S. 18th WBAX	* 750	4	150	4	* AG	1176	1.3	.0	10.0
T. 18th WBDX	* -150	4	-750	4	* AG	1280	1.3	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 2

JOB: Forest 2010 NP9  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## III. RECEPTOR LOCATIONS

RECEPTOR	* X	* Y	* Z
1. SE	* 20	* -7	* 1.8
2. NW	* -7	* 10	* 1.8
3. SW	* -7	* -7	* 1.8
4. NE	* 20	* 10	* 1.8
5. ES mdbl	* 150	* -7	* 1.8
6. WN mdbl	* -150	* 10	* 1.8
7. WS mdbl	* -150	* -7	* 1.8
8. EN mdbl	* 150	* 10	* 1.8
9. SE mdbl	* 20	* -150	* 1.8
10. NW mdbl	* -7	* 150	* 1.8
11. SW mdbl	* -7	* -150	* 1.8
12. NE mdbl	* 20	* 150	* 1.8
13. ES blk	* 600	* -7	* 1.8
14. WN blk	* -600	* 10	* 1.8
15. WS blk	* -600	* -7	* 1.8
16. EN blk	* 600	* 10	* 1.8
17. SE blk	* 20	* -600	* 1.8
18. NW blk	* -7	* 600	* 1.8
19. SW blk	* -7	* -600	* 1.8
20. NE blk	* 20	* 600	* 1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 3

JOB: Forest 2010 NP9  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* BRG (DEG)	* PRED CONC (PPM)	CONC/LINK (PPM)								
			A	B	C	D	E	F	G	H	
1. SE	* 352.	* .4	* .0	* .2	* .0	* .0	* .0	* .0	* .0	* .0	* .0
2. NW	* 172.	* .4	* .1	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
3. SW	* 84.	* .3	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
4. NE	* 188.	* .4	* .2	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
5. ES mdbl	* 276.	* .2	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
6. WN mdbl	* 97.	* .3	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
7. WS mdbl	* 84.	* .2	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
8. EN mdbl	* 263.	* .3	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
9. SE mdbl	* 351.	* .3	* .2	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
10. NW mdbl	* 173.	* .2	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
11. SW mdbl	* 9.	* .3	* .1	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
12. NE mdbl	* 187.	* .3	* .0	* .2	* .0	* .0	* .0	* .0	* .0	* .0	* .0
13. ES blk	* 276.	* .2	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
14. WN blk	* 96.	* .3	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
15. WS blk	* 84.	* .2	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
16. EN blk	* 264.	* .3	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
17. SE blk	* 353.	* .3	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
18. NW blk	* 173.	* .2	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
19. SW blk	* 7.	* .3	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
20. NE blk	* 187.	* .3	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Forest 2010 NP9  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM)											
	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
2. NW	* .0	* .0	* .1	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
3. SW	* .0	* .1	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
4. NE	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
5. ES mdbl	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
6. WN mdbl	* .0	* .0	* .2	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
7. WS mdbl	* .0	* .0	* .1	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
8. EN mdbl	* .0	* .2	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
9. SE mdbl	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
10. NW mdbl	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
11. SW mdbl	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
12. NE mdbl	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
13. ES blk	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .2	* .0
14. WN blk	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .2
15. WS blk	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .2
16. EN blk	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .2	* .0
17. SE blk	* .0	* .0	* .0	* .0	* .3	* .0	* .0	* .0	* .0	* .0	* .0	* .0
18. NW blk	* .0	* .0	* .0	* .0	* .0	* .2	* .0	* .0	* .0	* .0	* .0	* .0
19. SW blk	* .0	* .0	* .0	* .0	* .2	* .0	* .0	* .0	* .0	* .0	* .0	* .0
20. NE blk	* .0	* .0	* .0	* .0	* .0	* .3	* .0	* .0	* .0	* .0	* .0	* .0



R. 27th EBDX \* 150 -5 750 -5 \* AG 1421 1.3 .0 10.0  
 S. 27th WBAX \* 750 5 150 5 \* AG 1511 1.3 .0 10.0  
 T. 27th WBDX \* -150 5 -750 5 \* AG 1464 1.3 .0 10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Forest 2025 P1  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## I. SITE VARIABLES

U= .5 M/S Z0= 100. CM ALT= 6. (M)  
 BRG= WORST CASE VD= .0 CM/S  
 CLAS= 7 (G) VS= .0 CM/S  
 MIXH= 1000. M AMB= .0 PPM  
 SIGTH= 10. DEGREES TEMP= 8.3 DEGREE (C)

## II. LINK VARIABLES

LINK DESCRIPTION	* X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. SanPab NBA	* 7	-150	7	0	* AG	832	1.3	.0	10.0
B. SanPab NBD	* 7	0	7	150	* AG	1027	1.3	.0	10.0
C. SanPab NBL	* 0	-150	0	0	* AG	212	1.3	.0	10.0
D. SanPab SBA	* -7	150	-7	0	* AG	527	1.3	.0	10.0
E. SanPab SBD	* -7	0	-7	-150	* AG	718	1.3	.0	10.0
F. SanPab SBL	* 0	150	0	0	* AG	172	1.3	.0	10.0
G. 27th EBA	* -150	-5	0	-5	* AG	1321	1.3	.0	10.0
H. 27th EBD	* 0	-5	150	-5	* AG	1421	1.3	.0	10.0
I. 27th EBL	* -150	0	0	0	* AG	55	1.3	.0	10.0
J. 27th WBA	* 150	5	0	5	* AG	1432	1.3	.0	10.0
K. 27th WBD	* 0	5	-150	5	* AG	1464	1.3	.0	10.0
L. 27th WBL	* 150	0	0	0	* AG	79	1.3	.0	10.0
M. SanPab NBAX	* 7	-750	7	-150	* AG	1044	1.3	.0	10.0
N. SanPab NBDX	* 7	150	7	750	* AG	1027	1.3	.0	10.0
O. SanPab SBAX	* -7	750	-7	150	* AG	699	1.3	.0	10.0
P. SanPab SBDX	* -7	-150	-7	-750	* AG	718	1.3	.0	10.0
Q. 27th EBAX	* -750	-5	-150	-5	* AG	1376	1.3	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 2

JOB: Forest 2025 P1  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## III. RECEPTOR LOCATIONS

RECEPTOR	* X	Y	Z
1. SE	* 14	-12	1.8
2. NW	* -14	12	1.8
3. SW	* 14	-13	1.8
4. NE	* -14	13	1.8
5. ES mdbl	* 150	-12	1.8
6. WN mdbl	* -150	12	1.8
7. WS mdbl	* -150	-13	1.8
8. EN mdbl	* 150	13	1.8
9. SE mdbl	* 14	-150	1.8
10. NW mdbl	* -14	150	1.8
11. SW mdbl	* 14	-150	1.8
12. NE mdbl	* -14	150	1.8
13. ES blk	* 600	-12	1.8
14. WN blk	* -600	12	1.8
15. WS blk	* -600	-13	1.8
16. EN blk	* 600	13	1.8
17. SE blk	* 14	-600	1.8
18. NW blk	* -14	600	1.8
19. SW blk	* 14	-600	1.8
20. NE blk	* -14	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 3

JOB: Forest 2025 P1  
RUN: Hour 1 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

## IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* BRG (DEG)	* PRED CONC (PPM)	CONC/LINK (PPM)									
			* A	* B	* C	* D	* E	* F	* G	* H		
1. SE	* 277.	* .5	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .2	* .0	
2. NW	* 97.	* .5	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	
3. SW	* 277.	* .5	* .0	* .0	* .0	* .0	* .0	* .0	* .2	* .0	* .0	
4. NE	* 97.	* .5	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	
5. ES mdbl	* 277.	* .5	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .2	* .0	
6. WN mdbl	* 97.	* .5	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	
7. WS mdbl	* 83.	* .4	* .0	* .0	* .0	* .0	* .0	* .0	* .2	* .0	* .0	
8. EN mdbl	* 263.	* .4	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	
9. SE mdbl	* 353.	* .3	* .1	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	
10. NW mdbl	* 173.	* .3	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	
11. SW mdbl	* 353.	* .3	* .1	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	
12. NE mdbl	* 173.	* .3	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	
13. ES blk	* 277.	* .5	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	
14. WN blk	* 97.	* .5	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	
15. WS blk	* 83.	* .4	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	
16. EN blk	* 263.	* .4	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	
17. SE blk	* 353.	* .3	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	
18. NW blk	* 173.	* .3	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	
19. SW blk	* 353.	* .3	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	
20. NE blk	* 173.	* .3	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 4

JOB: Forest 2025 P1  
RUN: Hour 1 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

## IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM)											
	* I	* J	* K	* L	* M	* N	* O	* P	* Q	* R	* S	* T
1. SE	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
2. NW	* .0	* .2	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
3. SW	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
4. NE	* .0	* .2	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
5. ES mdbl	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
6. WN mdbl	* .0	* .0	* .2	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
7. WS mdbl	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
8. EN mdbl	* .0	* .2	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
9. SE mdbl	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
10. NW mdbl	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
11. SW mdbl	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
12. NE mdbl	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
13. ES blk	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
14. WN blk	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .1	* .0	* .0	* .3
15. WS blk	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .2	* .0	* .0	* .1
16. EN blk	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .1	* .2	* .0
17. SE blk	* .0	* .0	* .0	* .0	* .2	* .0	* .0	* .0	* .0	* .0	* .0	* .0
18. NW blk	* .0	* .0	* .0	* .0	* .0	* .0	* .1	* .0	* .0	* .0	* .0	* .0
19. SW blk	* .0	* .0	* .0	* .0	* .2	* .0	* .0	* .0	* .0	* .0	* .0	* .0
20. NE blk	* .0	* .0	* .0	* .0	* .0	* .0	* .1	* .0	* .0	* .0	* .0	* .0

R. 20th EBDX	*	150	-2	750	-2	*	AG	378	1.2	.0	10.0
S. 20th WBAX	*	750	2	150	2	*	AG	228	1.2	.0	10.0
T. 20th WBDX	*	-150	2	-750	2	*	AG	312	1.2	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 1

JOB: Forest 2025 NP2  
RUN: Hour 1 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

## I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	6. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	8.3 DEGREE (C)		

## II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M)				*	TYPE	VPH	EF (G/MI)	H (M)	W (M)
		X1	Y1	X2	Y2						
A. SanPab NBA	*	7	-150	7	0	*	AG	718	1.2	.0	10.0
B. SanPab NBD	*	7	0	7	150	*	AG	888	1.2	.0	10.0
C. SanPab NBL	*	0	-150	0	0	*	AG	52	1.2	.0	10.0
D. SanPab SBA	*	-9	150	-9	0	*	AG	625	1.2	.0	10.0
E. SanPab SBD	*	-9	0	-9	-150	*	AG	473	1.2	.0	10.0
F. SanPab SBL	*	0	150	0	0	*	AG	168	1.2	.0	10.0
G. 20th EBA	*	-150	-2	0	-2	*	AG	66	1.2	.0	10.0
H. 20th EBD	*	0	-2	150	-2	*	AG	378	1.2	.0	10.0
I. 20th EBL	*	-150	0	0	0	*	AG	194	1.2	.0	10.0
J. 20th WBA	*	150	2	0	2	*	AG	182	1.2	.0	10.0
K. 20th WBD	*	0	2	-150	2	*	AG	312	1.2	.0	10.0
L. 20th WBL	*	150	0	0	0	*	AG	46	1.2	.0	10.0
M. SanPab NBAX	*	7	-750	7	-150	*	AG	770	1.2	.0	10.0
N. SanPab NBDX	*	7	150	7	750	*	AG	888	1.2	.0	10.0
O. SanPab SBAX	*	-9	750	-9	150	*	AG	793	1.2	.0	10.0
P. SanPab SBDX	*	-9	-150	-9	-750	*	AG	473	1.2	.0	10.0
Q. 20th EBAX	*	-750	-2	-150	-2	*	AG	260	1.2	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Forest 2025 NP2  
RUN: Hour 1 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

## III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
		X	Y	Z
1. SE	*	14	-8	1.8
2. NW	*	-17	8	1.8
3. SW	*	-15	-8	1.8
4. NE	*	14	8	1.8
5. ES mdbl	*	150	-8	1.8
6. WN mdbl	*	-150	8	1.8
7. WS mdbl	*	-150	-8	1.8
8. EN mdbl	*	150	8	1.8
9. SE mdbl	*	14	-150	1.8
10. NW mdbl	*	-17	150	1.8
11. SW mdbl	*	-15	-150	1.8
12. NE mdbl	*	14	150	1.8
13. ES blk	*	600	-8	1.8
14. WN blk	*	-600	8	1.8
15. WS blk	*	-600	-8	1.8
16. EN blk	*	600	8	1.8
17. SE blk	*	14	-600	1.8
18. NW blk	*	-17	600	1.8
19. SW blk	*	-15	-600	1.8
20. NE blk	*	14	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 3

JOB: Forest 2025 NP2  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* BRG (DEG)	* PRED * CONC (PPM)	CONC/LINK (PPM)									
			A	B	C	D	E	F	G	H		
1. SE	* 353.	* .3 *	.0	.1	.0	.0	.0	.0	.0	.0	.0	
2. NW	* 96.	* .2 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
3. SW	* 7.	* .3 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4. NE	* 353.	* .2 *	.0	.1	.0	.0	.0	.0	.0	.0	.0	
5. ES mdbl	* 276.	* .2 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
6. WN mdbl	* 96.	* .2 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7. WS mdbl	* 84.	* .1 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8. EN mdbl	* 264.	* .1 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
9. SE mdbl	* 354.	* .2 *	.1	.0	.0	.0	.0	.0	.0	.0	.0	
10. NW mdbl	* 172.	* .2 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
11. SW mdbl	* 7.	* .2 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12. NE mdbl	* 188.	* .2 *	.0	.1	.0	.0	.0	.0	.0	.0	.0	
13. ES blk	* 276.	* .1 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
14. WN blk	* 95.	* .1 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
15. WS blk	* 84.	* .1 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
16. EN blk	* 264.	* .1 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17. SE blk	* 354.	* .2 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
18. NW blk	* 173.	* .2 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
19. SW blk	* 7.	* .2 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20. NE blk	* 187.	* .3 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Forest 2025 NP2  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	* I	* J	* K	* L	* M	CONC/LINK (PPM)						
						N	O	P	Q	R	S	T
1. SE	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	* .0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
18. NW blk	* .0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
19. SW blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	* .0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0

R. 20th EBDX	*	150	-2	750	-2	*	AG	502	1.5	.0	10.0
S. 20th WBAX	*	750	2	150	2	*	AG	301	1.5	.0	10.0
T. 20th WBDX	*	-150	2	-750	2	*	AG	337	1.5	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 1

JOB: Forest 2025 P3  
RUN: Hour 1 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

## I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	6. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	8.3 DEGREE (C)		

## II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M)				*	TYPE	VPH	EF (G/MI)	H (M)	W (M)
		X1	Y1	X2	Y2						
A. Telegra NBA	*	5	-150	5	0	*	AG	1198	1.5	.0	10.0
B. Telegra NBD	*	5	0	5	150	*	AG	1313	1.5	.0	10.0
C. Telegra NBL	*	0	-150	0	0	*	AG	90	1.5	.0	10.0
D. Telegra SBA	*	-7	150	-7	0	*	AG	786	1.5	.0	10.0
E. Telegra SBD	*	-7	0	-7	-150	*	AG	791	1.5	.0	10.0
F. Telegra SBL	*	0	150	0	0	*	AG	119	1.5	.0	10.0
G. 20th EBA	*	-150	-2	0	-2	*	AG	318	1.5	.0	10.0
H. 20th EBD	*	0	-2	150	-2	*	AG	502	1.5	.0	10.0
I. 20th EBL	*	-150	0	0	0	*	AG	131	1.5	.0	10.0
J. 20th WBA	*	150	2	0	2	*	AG	253	1.5	.0	10.0
K. 20th WBD	*	0	2	-150	2	*	AG	337	1.5	.0	10.0
L. 20th WBL	*	150	0	0	0	*	AG	48	1.5	.0	10.0
M. Telegra NBAX	*	5	-750	5	-150	*	AG	1288	1.5	.0	10.0
N. Telegra NBDX	*	5	150	5	750	*	AG	1313	1.5	.0	10.0
O. Telegra SBAX	*	-7	750	-7	150	*	AG	905	1.5	.0	10.0
P. Telegra SBDX	*	-7	-150	-7	-750	*	AG	791	1.5	.0	10.0
Q. 20th EBAX	*	-750	-2	-150	-2	*	AG	449	1.5	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Forest 2025 P3  
RUN: Hour 1 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

## III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
		X	Y	Z
1. SE	*	12	-8	1.8
2. NW	*	-14	8	1.8
3. SW	*	-14	-8	1.8
4. NE	*	12	8	1.8
5. ES mdbl	*	150	-8	1.8
6. WN mdbl	*	-150	8	1.8
7. WS mdbl	*	-150	-8	1.8
8. EN mdbl	*	150	8	1.8
9. SE mdbl	*	12	-150	1.8
10. NW mdbl	*	-14	150	1.8
11. SW mdbl	*	-14	-150	1.8
12. NE mdbl	*	12	150	1.8
13. ES blk	*	600	-8	1.8
14. WN blk	*	-600	8	1.8
15. WS blk	*	-600	-8	1.8
16. EN blk	*	600	8	1.8
17. SE blk	*	12	-600	1.8
18. NW blk	*	-14	600	1.8
19. SW blk	*	-14	-600	1.8
20. NE blk	*	12	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 3

JOB: Forest 2025 P3  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* BRG * (DEG)	* PRED * * CONC * (PPM)	CONC/LINK (PPM)							
			A	B	C	D	E	F	G	H
1. SE	* 353. *	.5 *	.0	.2	.0	.0	.0	.0	.0	.0
2. NW	* 173. *	.4 *	.0	.0	.0	.2	.0	.0	.0	.0
3. SW	* 7. *	.4 *	.0	.0	.0	.2	.0	.0	.0	.0
4. NE	* 187. *	.4 *	.2	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	* 276. *	.2 *	.0	.0	.0	.0	.0	.0	.0	.1
6. WN mdbl	* 96. *	.2 *	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	* 84. *	.2 *	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	* 264. *	.2 *	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	* 353. *	.4 *	.2	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	* 173. *	.4 *	.0	.0	.0	.2	.0	.0	.0	.0
11. SW mdbl	* 7. *	.4 *	.0	.0	.0	.2	.0	.0	.0	.0
12. NE mdbl	* 187. *	.4 *	.0	.3	.0	.0	.0	.0	.0	.0
13. ES blk	* 276. *	.2 *	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	* 96. *	.2 *	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	* 84. *	.2 *	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	* 264. *	.2 *	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	* 353. *	.4 *	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	* 173. *	.4 *	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	* 7. *	.4 *	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	* 187. *	.4 *	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Forest 2025 P3  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM)											
	* I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
14. WN blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	* .0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0
16. EN blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	* .0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0
18. NW blk	* .0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0
19. SW blk	* .0	.0	.0	.0	.1	.0	.0	.2	.0	.0	.0	.0
20. NE blk	* .0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Forest 2025 NP4  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 6. (M)  
 BRG= WORST CASE              VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                AMB= .0 PPM  
 SIGTH= 10. DEGREES          TEMP= 8.3 DEGREE (C)

## II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M)				*	TYPE	VPH	EF (G/MI)	H (M)	W (M)
		X1	Y1	X2	Y2						
A. Telegra NBA	*	5	-150	5	0	* AG	1343	1.5	.0	10.0	
B. Telegra NBD	*	5	0	5	150	* AG	1361	1.5	.0	10.0	
C. Telegra NBL	*	0	-150	0	0	* AG	82	1.5	.0	10.0	
D. Telegra SBA	*	-2	150	-4	0	* AG	768	1.5	.0	10.0	
E. Telegra SBD	*	-2	0	-4	-150	* AG	644	1.5	.0	10.0	
F. Telegra SBL	*	0	150	0	0	* AG	0	1.5	.0	10.0	
G. Williams EBA	*	-150	0	0	0	* AG	47	1.5	.0	10.0	
H. William EBD	*	0	0	150	0	* AG	0	1.5	.0	10.0	
I. William EBL	*	-150	0	0	0	* AG	18	1.5	.0	10.0	
J. William WBA	*	150	0	0	0	* AG	0	1.5	.0	10.0	
K. William WBD	*	0	0	-150	0	* AG	253	1.5	.0	10.0	
L. William WBL	*	150	0	0	0	* AG	0	1.5	.0	10.0	
M. Telegra NBAX	*	5	-750	5	-150	* AG	1425	1.5	.0	10.0	
N. Telegra NBDX	*	5	150	5	750	* AG	1361	1.5	.0	10.0	
O. Telegra SBAX	*	-4	750	-4	150	* AG	768	1.5	.0	10.0	
P. Telegra SBDX	*	-4	-150	-4	-750	* AG	644	1.5	.0	10.0	
Q. William EBAX	*	-750	0	-150	0	* AG	65	1.5	.0	10.0	

R. William EBDX	*	150	0	750	0	* AG	0	1.5	.0	10.0
S. William WBAX	*	750	0	150	0	* AG	0	1.5	.0	10.0
T. William WBDX	*	-150	0	-750	0	* AG	253	1.5	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 2

JOB: Forest 2025 NP4  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
		X	Y	Z
1. SE	*	12	-7	1.8
2. NW	*	-9	7	1.8
3. SW	*	-9	-7	1.8
4. NE	*	12	7	1.8
5. ES mdbl	*	150	-7	1.8
6. WN mdbl	*	-150	7	1.8
7. WS mdbl	*	-150	-7	1.8
8. EN mdbl	*	150	7	1.8
9. SE mdbl	*	12	-150	1.8
10. NW mdbl	*	-9	150	1.8
11. SW mdbl	*	-9	-150	1.8
12. NE mdbl	*	12	150	1.8
13. ES blk	*	600	-7	1.8
14. WN blk	*	-600	7	1.8
15. WS blk	*	-600	-7	1.8
16. EN blk	*	600	7	1.8
17. SE blk	*	12	-600	1.8
18. NW blk	*	-9	600	1.8
19. SW blk	*	-9	-600	1.8
20. NE blk	*	12	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 3

JOB: Forest 2025 NP4  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Forest 2025 NP4  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* BRG * (DEG)	* PRED * * CONC * (PPM)	CONC/LINK (PPM)							
			A	B	C	D	E	F	G	H
1. SE	187.	.4	.3	.0	.0	.0	.0	.0	.0	.0
2. NW	173.	.4	.1	.0	.0	.0	.1	.0	.0	.0
3. SW	6.	.4	.0	.0	.0	.2	.0	.0	.0	.0
4. NE	353.	.4	.0	.3	.0	.0	.0	.0	.0	.0
5. ES mdbl	271.	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	99.	.1	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	81.	.1	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	269.	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	353.	.4	.3	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	7.	.4	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	6.	.4	.0	.0	.0	.2	.0	.0	.0	.0
12. NE mdbl	187.	.4	.0	.3	.0	.0	.0	.0	.0	.0
13. ES blk	270.	.0	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	95.	.1	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	85.	.1	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	270.	.0	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	353.	.4	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	174.	.4	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	6.	.4	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	187.	.4	.0	.0	.0	.0	.0	.0	.0	.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM)											
		I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	*	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Forest 2025 P5  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## I. SITE VARIABLES

U= .5 M/S                    Z0= 100. CM                    ALT= 6. (M)  
 BRG= WORST CASE            VD= .0 CM/S  
 CLAS= 7 (G)                VS= .0 CM/S  
 MIXH= 1000. M              AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 8.3 DEGREE (C)

## II. LINK VARIABLES

LINK DESCRIPTION	* X1	* Y1	* X2	* Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Telegra NBA	* 5	* -150	* 5	* 0	* AG	435	1.5	.0	10.0
B. Telegra NBD	* 5	* 0	* 5	* 150	* AG	770	1.5	.0	10.0
C. Telegra NBL	* 0	* -150	* 0	* 0	* AG	83	1.5	.0	10.0
D. Telegra SBA	* -2	* 150	* -2	* 0	* AG	675	1.5	.0	10.0
E. Telegra SBD	* -2	* 0	* -2	* -150	* AG	612	1.5	.0	10.0
F. Telegra SBL	* 0	* 150	* 0	* 0	* AG	0	1.5	.0	10.0
G. 19th EBA	* -150	* 0	* 0	* 0	* AG	0	1.5	.0	10.0
H. 19th EBD	* 0	* 0	* 150	* 0	* AG	0	1.5	.0	10.0
I. 19th EBL	* -150	* 0	* 0	* 0	* AG	0	1.5	.0	10.0
J. 19th WBA	* 150	* 2	* 0	* 2	* AG	1676	1.5	.0	10.0
K. 19th WBD	* 0	* 2	* -150	* 2	* AG	1554	1.5	.0	10.0
L. 19th WBL	* 150	* 0	* 0	* 0	* AG	67	1.5	.0	10.0
M. Telegra NBAX	* 5	* -750	* 5	* -150	* AG	518	1.5	.0	10.0
N. Telegra NBDX	* 5	* 150	* 5	* 750	* AG	770	1.5	.0	10.0
O. Telegra SBAX	* -2	* 750	* -2	* 150	* AG	675	1.5	.0	10.0
P. Telegra SBDX	* -2	* -150	* -2	* -750	* AG	612	1.5	.0	10.0
Q. 19th EBAX	* -750	* 0	* -150	* 0	* AG	0	1.5	.0	10.0

R. 19th EBDX	* 150	0	750	0 * AG	0	1.5	.0	10.0
S. 19th WBAX	* 750	2	150	2 * AG	1743	1.5	.0	10.0
T. 19th WBDX	* -150	2	-750	2 * AG	1554	1.5	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 2

JOB: Forest 2025 P5  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## III. RECEPTOR LOCATIONS

RECEPTOR	* X	* Y	* Z
1. SE	* 12	* -7	* 1.8
2. NW	* -8	* 8	* 1.8
3. SW	* -8	* -7	* 1.8
4. NE	* 12	* 8	* 1.8
5. ES mdbl	* 150	* -7	* 1.8
6. WN mdbl	* -150	* 8	* 1.8
7. WS mdbl	* -150	* -7	* 1.8
8. EN mdbl	* 150	* 8	* 1.8
9. SE mdbl	* 12	* -150	* 1.8
10. NW mdbl	* -8	* 150	* 1.8
11. SW mdbl	* -8	* -150	* 1.8
12. NE mdbl	* 12	* 150	* 1.8
13. ES blk	* 600	* -7	* 1.8
14. WN blk	* -600	* 8	* 1.8
15. WS blk	* -600	* -7	* 1.8
16. EN blk	* 600	* 8	* 1.8
17. SE blk	* 12	* -600	* 1.8
18. NW blk	* -8	* 600	* 1.8
19. SW blk	* -8	* -600	* 1.8
20. NE blk	* 12	* 600	* 1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 3

JOB: Forest 2025 P5  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Forest 2025 P5  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* BRG (DEG)	* PRED * CONC (PPM)	CONC/LINK (PPM)									
			A	B	C	D	E	F	G	H		
1. SE	* 354.	* .4	* .0	.1	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	* 97.	* .5	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	* 83.	* .4	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	* 263.	* .5	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	* 278.	* .3	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	* 96.	* .4	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	* 84.	* .3	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	* 263.	* .4	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	* 354.	* .3	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	* 173.	* .3	* .0	.0	.0	.1	.0	.0	.0	.0	.0	.0
11. SW mdbl	* 6.	* .3	* .0	.0	.0	.0	.1	.0	.0	.0	.0	.0
12. NE mdbl	* 187.	* .3	* .0	.2	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	* 277.	* .3	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	* 96.	* .4	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	* 84.	* .3	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	* 263.	* .4	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	* 354.	* .3	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	* 174.	* .3	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	* 6.	* .3	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	* 186.	* .3	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM)											
	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	* .0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	* .0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	* .0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	* .0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	* .0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	* .0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	* .0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	* .0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0
14. WN blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3
15. WS blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3
16. EN blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0
17. SE blk	* .0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
18. NW blk	* .0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
19. SW blk	* .0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
20. NE blk	* .0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0

R. Grand EBDX	*	150	-7	750	-7	*	AG	1114	1.5	.0	10.0
S. Grand WBAX	*	750	7	150	7	*	AG	1842	1.5	.0	10.0
T. Grand WBDX	*	-150	7	-750	7	*	AG	1341	1.5	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 1

JOB: Forest 2025 P7  
RUN: Hour 1 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

## I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	6. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	8.3 DEGREE (C)		

## II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M)				*	TYPE	VPH	EF (G/MI)	H (M)	W (M)
		X1	Y1	X2	Y2						
A. Front NBA	*	7	-150	7	0	* AG	329	1.5	.0	10.0	
B. Front NBD	*	7	0	7	150	* AG	1415	1.5	.0	10.0	
C. Front NBL	*	0	-150	0	0	* AG	28	1.5	.0	10.0	
D. Front SBA	*	-5	150	-5	0	* AG	125	1.5	.0	10.0	
E. Front SBD	*	-5	0	-5	-150	* AG	382	1.5	.0	10.0	
F. Front SBL	*	0	150	0	0	* AG	157	1.5	.0	10.0	
G. Grand EBA	*	-150	-7	0	-7	* AG	921	1.5	.0	10.0	
H. Grand EBD	*	0	-7	150	-7	* AG	1114	1.5	.0	10.0	
I. Grand EBL	*	-150	0	0	0	* AG	850	1.5	.0	10.0	
J. Grand WBA	*	150	7	0	7	* AG	1712	1.5	.0	10.0	
K. Grand WBD	*	0	7	-150	7	* AG	1341	1.5	.0	10.0	
L. Grand WBL	*	150	0	0	0	* AG	130	1.5	.0	10.0	
M. Front NBAX	*	7	-750	7	-150	* AG	357	1.5	.0	10.0	
N. Front NBDX	*	7	150	7	750	* AG	1415	1.5	.0	10.0	
O. Front SBAX	*	-5	750	-5	150	* AG	282	1.5	.0	10.0	
P. Front SBDX	*	-5	-150	-5	-750	* AG	382	1.5	.0	10.0	
Q. Grand EBAX	*	-750	-7	-150	-7	* AG	1771	1.5	.0	10.0	

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Forest 2025 P7  
RUN: Hour 1 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

## III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
		X	Y	Z
1. SE	*	14	-14	1.8
2. NW	*	-12	14	1.8
3. SW	*	-12	-14	1.8
4. NE	*	14	14	1.8
5. ES mdbl	*	150	-14	1.8
6. WN mdbl	*	-150	14	1.8
7. WS mdbl	*	-150	-14	1.8
8. EN mdbl	*	150	14	1.8
9. SE mdbl	*	14	-150	1.8
10. NW mdbl	*	-12	150	1.8
11. SW mdbl	*	-12	-150	1.8
12. NE mdbl	*	14	150	1.8
13. ES blk	*	600	-14	1.8
14. WN blk	*	-600	14	1.8
15. WS blk	*	-600	-14	1.8
16. EN blk	*	600	14	1.8
17. SE blk	*	14	-600	1.8
18. NW blk	*	-12	600	1.8
19. SW blk	*	-12	-600	1.8
20. NE blk	*	14	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 3

JOB: Forest 2025 P7  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* * BRG * (DEG)	* PRED * CONC * (PPM)	CONC/LINK (PPM)										
			A	B	C	D	E	F	G	H			
1. SE	* 278.	* .5	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .2	* .0		
2. NW	* 97.	* .6	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0		
3. SW	* 82.	* .5	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .2		
4. NE	* 262.	* .7	* .0	* .1	* .0	* .0	* .0	* .0	* .0	* .0	* .0		
5. ES mdbl	* 277.	* .5	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .2		
6. WN mdbl	* 97.	* .5	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0		
7. WS mdbl	* 278.	* .5	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0		
8. EN mdbl	* 263.	* .6	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0		
9. SE mdbl	* 355.	* .2	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0		
10. NW mdbl	* 170.	* .2	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0		
11. SW mdbl	* 6.	* .3	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0		
12. NE mdbl	* 188.	* .4	* .0	* .3	* .0	* .0	* .0	* .0	* .0	* .0	* .0		
13. ES blk	* 277.	* .5	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0		
14. WN blk	* 97.	* .5	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0		
15. WS blk	* 83.	* .6	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0		
16. EN blk	* 263.	* .5	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0		
17. SE blk	* 354.	* .2	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0		
18. NW blk	* 173.	* .3	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0		
19. SW blk	* 6.	* .2	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0		
20. NE blk	* 187.	* .4	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0		

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Forest 2025 P7  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM)											
	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
2. NW	* .0	* .3	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
3. SW	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
4. NE	* .0	* .0	* .2	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
5. ES mdbl	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
6. WN mdbl	* .0	* .0	* .3	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
7. WS mdbl	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .4	* .0	* .0	* .1
8. EN mdbl	* .0	* .3	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
9. SE mdbl	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
10. NW mdbl	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
11. SW mdbl	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
12. NE mdbl	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
13. ES blk	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .3	* .1	* .0
14. WN blk	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .1	* .0	* .0	* .3
15. WS blk	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .4	* .0	* .0	* .1
16. EN blk	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .1	* .4	* .0
17. SE blk	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
18. NW blk	* .0	* .0	* .0	* .0	* .0	* .1	* .0	* .0	* .0	* .0	* .0	* .0
19. SW blk	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
20. NE blk	* .0	* .0	* .0	* .0	* .0	* .3	* .0	* .0	* .0	* .0	* .0	* .0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Forest 2010 P8  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## I. SITE VARIABLES

U= .5 M/S                    Z0= 100. CM                    ALT= 6. (M)  
 BRG= WORST CASE            VD= .0 CM/S  
 CLAS= 7 (G)                VS= .0 CM/S  
 MIXH= 1000. M              AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 8.3 DEGREE (C)

## II. LINK VARIABLES

LINK DESCRIPTION	* X1	* Y1	* X2	* Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Harris NBA	* 9	-150	9	0	* AG	2689	1.3	.0	10.0
B. Harris NBD	* 9	0	9	150	* AG	2210	1.3	.0	10.0
C. Harris NBL	* 0	-150	0	0	* AG	9	1.3	.0	10.0
D. Harris SBA	* -4	150	-4	0	* AG	1210	1.3	.0	10.0
E. Harris SBD	* -4	0	-4	-150	* AG	1687	1.3	.0	10.0
F. Harris SBL	* 0	150	0	0	* AG	0	1.3	.0	10.0
G. Grand EBA	* -150	-11	0	-11	* AG	964	1.3	.0	10.0
H. Grand EBD	* 0	-11	150	-11	* AG	1578	1.3	.0	10.0
I. Grand EBL	* -150	0	0	0	* AG	228	1.3	.0	10.0
J. Grand WBA	* 150	11	0	11	* AG	879	1.3	.0	10.0
K. Grand WBD	* 0	11	-150	11	* AG	902	1.3	.0	10.0
L. Grand WEL	* 150	0	0	0	* AG	398	1.3	.0	10.0
M. Harris NBAX	* 9	-750	9	-150	* AG	2698	1.3	.0	10.0
N. Harris NBDX	* 9	150	9	750	* AG	2210	1.3	.0	10.0
O. Harris SBAX	* -4	750	-4	150	* AG	1210	1.3	.0	10.0
P. Harris SBDX	* -4	-150	-4	-750	* AG	1687	1.3	.0	10.0
Q. Grand EBAX	* -750	-11	-150	-11	* AG	1192	1.3	.0	10.0

R. Grand EBDX \* 150 -11 750 -11 \* AG 1578 1.3 .0 10.0  
 S. Grand WBAX \* 750 11 150 11 \* AG 1277 1.3 .0 10.0  
 T. Grand WBDX \* -150 11 -750 11 \* AG 902 1.3 .0 10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 2

JOB: Forest 2010 P8  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## III. RECEPTOR LOCATIONS

RECEPTOR	* X	* Y	* Z
1. SE	* 17	-17	1.8
2. NW	* -11	17	1.8
3. SW	* -10	-17	1.8
4. NE	* 15	17	1.8
5. ES mdbl	* 150	-17	1.8
6. WN mdbl	* -150	17	1.8
7. WS mdbl	* -150	-17	1.8
8. EN mdbl	* 150	17	1.8
9. SE mdbl	* 17	-150	1.8
10. NW mdbl	* -11	150	1.8
11. SW mdbl	* -10	-150	1.8
12. NE mdbl	* 15	150	1.8
13. ES blk	* 600	-17	1.8
14. WN blk	* -600	17	1.8
15. WS blk	* -600	-17	1.8
16. EN blk	* 600	17	1.8
17. SE blk	* 17	-600	1.8
18. NW blk	* -11	600	1.8
19. SW blk	* -10	-600	1.8
20. NE blk	* 15	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 3

JOB: Forest 2010 P8  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* BRG (DEG)	* PRED * CONC (PPM)	CONC/LINK (PPM)									
			A	B	C	D	E	F	G	H		
1. SE	* 352.	* .6	* .0	.2	.0	.0	.0	.0	.0	.0	.1	
2. NW	* 172.	* .6	* .1	.0	.0	.0	.2	.0	.0	.0	.0	
3. SW	* 82.	* .6	* .1	.0	.0	.0	.1	.0	.0	.2	.0	
4. NE	* 188.	* .7	* .3	.0	.0	.0	.0	.0	.0	.0	.0	
5. ES mdbl	* 278.	* .5	* .0	.0	.0	.0	.0	.0	.0	.3	.0	
6. WN mdbl	* 98.	* .4	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
7. WS mdbl	* 83.	* .4	* .0	.0	.0	.0	.0	.0	.2	.0	.0	
8. EN mdbl	* 261.	* .4	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
9. SE mdbl	* 352.	* .5	* .3	.0	.0	.0	.0	.0	.0	.0	.0	
10. NW mdbl	* 173.	* .4	* .0	.0	.0	.2	.0	.0	.0	.0	.0	
11. SW mdbl	* 8.	* .5	* .1	.0	.0	.0	.3	.0	.0	.0	.0	
12. NE mdbl	* 187.	* .6	* .0	.3	.0	.0	.0	.0	.0	.0	.0	
13. ES blk	* 277.	* .4	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
14. WN blk	* 97.	* .3	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
15. WS blk	* 83.	* .4	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
16. EN blk	* 262.	* .4	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
17. SE blk	* 352.	* .5	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
18. NW blk	* 173.	* .4	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
19. SW blk	* 7.	* .5	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
20. NE blk	* 187.	* .5	* .0	.0	.0	.0	.0	.0	.0	.0	.0	

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Forest 2010 P8  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM)												
		I	J	K	L	M	N	O	P	Q	R	S	T	
1. SE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0
17. SE blk	*	.0	.0	.0	.0	.3	.0	.0	.1	.0	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.2	.0	.0	.3	.0	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Forest 2025 P9  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## I. SITE VARIABLES

U= .5 M/S                    Z0= 100. CM                    ALT= 6. (M)  
 BRG= WORST CASE            VD= .0 CM/S  
 CLAS= 7 (G)                VS= .0 CM/S  
 MIXH= 1000. M              AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 8.3 DEGREE (C)

## II. LINK VARIABLES

LINK DESCRIPTION	* X1	* Y1	* X2	* Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Castro NBA	* 11	* -150	* 11	* 0	* AG	2106	1.3	.0	10.0
B. Castro NBD	* 11	* 0	* 11	* 150	* AG	2106	1.3	.0	10.0
C. Castro NBL	* 0	* -150	* 0	* 0	* AG	263	1.3	.0	10.0
D. Castro SBA	* 0	* 150	* 0	* 0	* AG	0	1.3	.0	10.0
E. Castro SBD	* 0	* 0	* 0	* -150	* AG	159	1.3	.0	10.0
F. Castro SBL	* 0	* 150	* 0	* 0	* AG	0	1.3	.0	10.0
G. 18th EBA	* -150	* 0	* 0	* 0	* AG	0	1.3	.0	10.0
H. 18th EBD	* 0	* 0	* 150	* 0	* AG	0	1.3	.0	10.0
I. 18th EBL	* -150	* 0	* 0	* 0	* AG	0	1.3	.0	10.0
J. 18th WBA	* 150	* 4	* 0	* 4	* AG	1076	1.3	.0	10.0
K. 18th WBD	* 0	* 4	* -150	* 4	* AG	1339	1.3	.0	10.0
L. 18th WBL	* 150	* 0	* 0	* 0	* AG	159	1.3	.0	10.0
M. Castro NBAX	* 11	* -750	* 11	* -150	* AG	2369	1.3	.0	10.0
N. Castro NBDX	* 11	* 150	* 11	* 750	* AG	2106	1.3	.0	10.0
O. Castro SBAX	* -4	* 750	* -4	* 150	* AG	0	1.3	.0	10.0
P. Castro SBDX	* -4	* -150	* -4	* -750	* AG	159	1.3	.0	10.0
Q. 18th EBAX	* -750	* 0	* -150	* 0	* AG	0	1.3	.0	10.0

R. 18th EBDX	* 150	0	750	0 * AG	0	1.3	.0	10.0
S. 18th WBAX	* 750	4	150	4 * AG	1235	1.3	.0	10.0
T. 18th WBDX	* -150	4	-750	4 * AG	1339	1.3	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 2

JOB: Forest 2025 P9  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## III. RECEPTOR LOCATIONS

RECEPTOR	* X	* Y	* Z
1. SE	* 20	* -7	* 1.8
2. NW	* -7	* 10	* 1.8
3. SW	* -7	* -7	* 1.8
4. NE	* 20	* 10	* 1.8
5. ES mdbl	* 150	* -7	* 1.8
6. WN mdbl	* -150	* 10	* 1.8
7. WS mdbl	* -150	* -7	* 1.8
8. EN mdbl	* 150	* 10	* 1.8
9. SE mdbl	* 20	* -150	* 1.8
10. NW mdbl	* -7	* 150	* 1.8
11. SW mdbl	* -7	* -150	* 1.8
12. NE mdbl	* 20	* 150	* 1.8
13. ES blk	* 600	* -7	* 1.8
14. WN blk	* -600	* 10	* 1.8
15. WS blk	* -600	* -7	* 1.8
16. EN blk	* 600	* 10	* 1.8
17. SE blk	* 20	* -600	* 1.8
18. NW blk	* -7	* 600	* 1.8
19. SW blk	* -7	* -600	* 1.8
20. NE blk	* 20	* 600	* 1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 3

JOB: Forest 2025 P9  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* BRG (DEG)	* PRED * CONC (PPM)	CONC/LINK (PPM)								
			A	B	C	D	E	F	G	H	
1. SE	* 352.	* .4	* .0	.2	.0	.0	.0	.0	.0	.0	.0
2. NW	* 172.	* .4	* .1	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	* 84.	* .3	* .0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	* 188.	* .4	* .2	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	* 276.	* .2	* .0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	* 97.	* .3	* .0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	* 84.	* .2	* .0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	* 263.	* .3	* .0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	* 351.	* .3	* .2	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	* 173.	* .2	* .0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	* 9.	* .3	* .1	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	* 187.	* .3	* .0	.2	.0	.0	.0	.0	.0	.0	.0
13. ES blk	* 276.	* .2	* .0	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	* 96.	* .3	* .0	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	* 84.	* .2	* .0	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	* 264.	* .3	* .0	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	* 353.	* .3	* .0	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	* 173.	* .2	* .0	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	* 7.	* .3	* .0	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	* 187.	* .3	* .0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Forest 2025 P9  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM)											
	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	* .0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	* .0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	* .0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	* .0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	* .0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	* .0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0
14. WN blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3
15. WS blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
16. EN blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
17. SE blk	* .0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
18. NW blk	* .0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0
19. SW blk	* .0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
20. NE blk	* .0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0



URBEMIS 2002 For Windows 7.4.2

File Name: C:\Program Files\URBEMIS 2002 For Windows\Projects2k2\Uptown.urb  
 Project Name: Uptown  
 Project Location: San Francisco Bay Area  
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
 (Pounds/Day - Summer)

OPERATIONAL (VEHICLE) EMISSION ESTIMATES	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	129.95	120.82	1,290.09	1.11	99.58

URBEMIS 2002 For Windows 7.4.2

File Name: C:\Program Files\URBEMIS 2002 For Windows\Projects2k2\Uptown.urb  
 Project Name: Uptown  
 Project Location: San Francisco Bay Area  
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
 (Pounds/Day - Winter)

OPERATIONAL (VEHICLE) EMISSION ESTIMATES	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	131.20	163.23	1,446.00	1.03	99.58

URBEMIS 2002 For Windows 7.4.2

File Name: C:\Program Files\URBEMIS 2002 For Windows\Projects2k2\Uptown.urb  
 Project Name: Uptown  
 Project Location: San Francisco Bay Area  
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
 (Pounds/Day - Winter)

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Apartments low rise	69.31	98.66	772.60	0.56	53.99
Apartments high rise	32.13	45.74	358.19	0.26	25.03
Condo/townhouse general	19.05	27.12	212.59	0.15	14.84
Retail	10.70	11.71	102.63	0.06	5.71
TOTAL EMISSIONS (lbs/day)	131.20	183.23	1,446.00	1.03	99.58

Includes correction for passby trips.  
 Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2005 Temperature (F): 40 Season: Winter

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Apartments low rise	5.51 trips / dwelling units	1,000.00	5,510.00
Apartments high rise	3.93 trips / dwelling units	650.00	2,554.50
Condo/townhouse general	5.61 trips / dwelling units	270.00	1,514.70
Retail	40.00 trips / 1000 sq. ft.	33.00	1,320.00

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	56.10	2.30	97.10	0.60
Light Truck < 3,750 lbs	15.10	4.00	93.40	2.60
Light Truck 3,751- 5,750	15.50	1.90	96.80	1.30
Med Truck 5,751- 8,500	6.80	1.50	95.60	2.50
Lite-Heavy 8,501-10,000	1.00	0.00	60.00	20.00
Lite-Heavy 10,001-14,000	0.30	0.00	66.70	33.30
Med-Heavy 14,001-33,000	1.00	10.00	20.00	70.00
Heavy-Heavy 33,001-60,000	0.80	0.00	12.50	87.50
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.60	87.50	12.50	0.00
School Bus	0.30	0.00	0.00	100.00
Motor Home	1.40	14.30	78.60	7.10

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.8	4.6	6.1	11.8	5.0	5.0
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)				2.0	1.0	97.0
Retail						

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Operations

The operational emission year changed from 2004 to 2005.  
 The double counting internal work trip limit changed from to 26.4.  
 The double counting shopping trip limit changed from to 13.2.  
 The double counting other trip limit changed from to 1280.4.  
 The travel mode environment settings changed from both to: none

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Forest 2003 NP1  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## I. SITE VARIABLES

U= .5 M/S                    Z0= 100. CM                    ALT= 6. (M)  
 BRG= WORST CASE            VD= .0 CM/S  
 CLAS= 7 (G)                VS= .0 CM/S  
 MIXH= 1000. M              AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 8.3 DEGREE (C)

## II. LINK VARIABLES

LINK DESCRIPTION	* X1	* Y1	* X2	* Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. SanPab NBA	* 7	* -150	* 7	* 0	* AG	503	7.6	.0	10.0
B. SanPab NBD	* 7	* 0	* 7	* 150	* AG	621	7.6	.0	10.0
C. SanPab NBL	* 0	* -150	* 0	* 0	* AG	112	7.6	.0	10.0
D. SanPab SBA	* -7	* 150	* -7	* 0	* AG	380	7.6	.0	10.0
E. SanPab SBD	* -7	* 0	* -7	* -150	* AG	437	7.6	.0	10.0
F. SanPab SBL	* 0	* 150	* 0	* 0	* AG	122	7.6	.0	10.0
G. 27th EBA	* -150	* -5	* 0	* -5	* AG	696	7.6	.0	10.0
H. 27th EBD	* 0	* -5	* 150	* -5	* AG	799	7.6	.0	10.0
I. 27th EBL	* -150	* 0	* 0	* 0	* AG	31	7.6	.0	10.0
J. 27th WBA	* 150	* 5	* 0	* 5	* AG	778	7.6	.0	10.0
K. 27th WBD	* 0	* 5	* -150	* 5	* AG	796	7.6	.0	10.0
L. 27th WBL	* 150	* 0	* 0	* 0	* AG	31	7.6	.0	10.0
M. SanPab NBAX	* 7	* -750	* 7	* -150	* AG	615	7.6	.0	10.0
N. SanPab NBDX	* 7	* 150	* 7	* 750	* AG	621	7.6	.0	10.0
O. SanPab SBAX	* -7	* 750	* -7	* 150	* AG	502	7.6	.0	10.0
P. SanPab SBDX	* -7	* -150	* -7	* -750	* AG	437	7.6	.0	10.0
Q. 27th EBAX	* -750	* -5	* -150	* -5	* AG	727	7.6	.0	10.0

R. 27th EBDX	* 150	* -5	* 750	* -5	* AG	799	7.6	.0	10.0
S. 27th WBAX	* 750	* 5	* 150	* 5	* AG	806	7.6	.0	10.0
T. 27th WBDX	* -150	* 5	* -750	* 5	* AG	796	7.6	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 2

JOB: Forest 2003 NP1  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## III. RECEPTOR LOCATIONS

RECEPTOR	* X	* Y	* Z
1. SE	* 14	* -12	* 1.8
2. NW	* -14	* 12	* 1.8
3. SW	* 14	* -13	* 1.8
4. NE	* -14	* 13	* 1.8
5. ES mdbl	* 150	* -12	* 1.8
6. WN mdbl	* -150	* 12	* 1.8
7. WS mdbl	* -150	* -13	* 1.8
8. EN mdbl	* 150	* 13	* 1.8
9. SE mdbl	* 14	* -150	* 1.8
10. NW mdbl	* -14	* 150	* 1.8
11. SW mdbl	* 14	* -150	* 1.8
12. NE mdbl	* -14	* 150	* 1.8
13. ES blk	* 600	* -12	* 1.8
14. WN blk	* -600	* 12	* 1.8
15. WS blk	* -600	* -13	* 1.8
16. EN blk	* 600	* 13	* 1.8
17. SE blk	* 14	* -600	* 1.8
18. NW blk	* -14	* 600	* 1.8
19. SW blk	* 14	* -600	* 1.8
20. NE blk	* -14	* 600	* 1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 3

JOB: Forest 2003 NP1  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* * BRG * (DEG)	* PRED * CONC * (PPM)	CONC/LINK (PPM)							
			A	B	C	D	E	F	G	H
1. SE	* 277.	* 1.8 *	.2	.0	.0	.0	.1	.0	.6	.1
2. NW	* 97.	* 1.9 *	.0	.2	.0	.2	.0	.0	.0	.3
3. SW	* 277.	* 1.7 *	.2	.0	.0	.0	.1	.0	.6	.0
4. NE	* 97.	* 1.8 *	.0	.2	.0	.2	.0	.0	.0	.3
5. ES mdbl	* 277.	* 1.7 *	.0	.0	.0	.0	.0	.0	.0	.8
6. WN mdbl	* 97.	* 1.6 *	.0	.0	.0	.0	.0	.0	.2	.1
7. WS mdbl	* 83.	* 1.5 *	.0	.0	.0	.0	.0	.0	.6	.0
8. EN mdbl	* 263.	* 1.5 *	.0	.0	.0	.0	.0	.0	.1	.2
9. SE mdbl	* 353.	* 1.2 *	.5	.0	.0	.0	.1	.0	.0	.0
10. NW mdbl	* 173.	* 1.2 *	.1	.1	.0	.4	.0	.0	.0	.0
11. SW mdbl	* 353.	* 1.2 *	.5	.0	.0	.0	.1	.0	.0	.0
12. NE mdbl	* 173.	* 1.2 *	.1	.1	.0	.4	.0	.0	.0	.0
13. ES blk	* 277.	* 1.6 *	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	* 96.	* 1.6 *	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	* 84.	* 1.5 *	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	* 264.	* 1.5 *	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	* 354.	* 1.2 *	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	* 173.	* 1.2 *	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	* 354.	* 1.2 *	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	* 173.	* 1.2 *	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Forest 2003 NP1  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	* * I	* * J	* * K	* * L	* * M	CONC/LINK (PPM)							
						N	O	P	Q	R	S	T	
1. SE	* .0	.0	.3	.0	.0	.0	.0	.0	.0	.1	.0	.0	.2
2. NW	* .0	.7	.1	.0	.0	.0	.0	.0	.0	.0	.2	.1	.0
3. SW	* .0	.0	.3	.0	.0	.0	.0	.0	.0	.1	.0	.0	.2
4. NE	* .0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.0
5. ES mdbl	* .0	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
6. WN mdbl	* .0	.0	.8	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
7. WS mdbl	* .0	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	* .0	.7	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0
9. SE mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	.5	.0
14. WN blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.9
15. WS blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.8	.0	.0	.4
16. EN blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.9	.0	.0
17. SE blk	* .0	.0	.0	.0	.8	.0	.2	.0	.0	.0	.0	.0	.0
18. NW blk	* .0	.0	.0	.0	.0	.3	.6	.0	.0	.0	.0	.0	.0
19. SW blk	* .0	.0	.0	.0	.8	.0	.2	.0	.0	.0	.0	.0	.0
20. NE blk	* .0	.0	.0	.0	.0	.3	.6	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Forest 2003 NP2  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## I. SITE VARIABLES

U= .5 M/S                    Z0= 100. CM                    ALT= 6. (M)  
 BRG= WORST CASE            VD= .0 CM/S  
 CLAS= 7 (G)                VS= .0 CM/S  
 MIXH= 1000. M              AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 8.3 DEGREE (C)

## II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M)				* TYPE	VPH	EF (G/MI)	H (M)	W (M)
	* X1	Y1	X2	Y2					
A. SanPab NBA	* 7	-150	7	0	* AG	463	7.6	.0	10.0
B. SanPab NBD	* 7	0	7	150	* AG	647	7.6	.0	10.0
C. SanPab NBL	* 0	-150	0	0	* AG	40	7.6	.0	10.0
D. SanPab SBA	* -9	150	-9	0	* AG	523	7.6	.0	10.0
E. SanPab SBD	* -9	0	-9	-150	* AG	363	7.6	.0	10.0
F. SanPab SBL	* 0	150	0	0	* AG	95	7.6	.0	10.0
G. 20th EBA	* -150	-2	0	-2	* AG	66	7.6	.0	10.0
H. 20th EBD	* 0	-2	150	-2	* AG	228	7.6	.0	10.0
I. 20th EBL	* -150	0	0	0	* AG	194	7.6	.0	10.0
J. 20th WBA	* 150	2	0	2	* AG	109	7.6	.0	10.0
K. 20th WBD	* 0	2	-150	2	* AG	267	7.6	.0	10.0
L. 20th WBL	* 150	0	0	0	* AG	15	7.6	.0	10.0
M. SanPab NBAX	* 7	-750	7	-150	* AG	503	7.6	.0	10.0
N. SanPab NBDX	* 7	150	7	750	* AG	647	7.6	.0	10.0
O. SanPab SBAX	* -9	750	-9	150	* AG	618	7.6	.0	10.0
P. SanPab SBDX	* -9	-150	-9	-750	* AG	363	7.6	.0	10.0
Q. 20th EBAX	* -750	-2	-150	-2	* AG	260	7.6	.0	10.0

R. 20th EBDX	* 150	-2	750	-2	* AG	228	7.6	.0	10.0
S. 20th WBAX	* 750	2	150	2	* AG	124	7.6	.0	10.0
T. 20th WBDX	* -150	2	-750	2	* AG	267	7.6	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 2

JOB: Forest 2003 NP2  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M)		
	* X	Y	Z
1. SE	* 14	-8	1.8
2. NW	* -17	8	1.8
3. SW	* -15	-8	1.8
4. NE	* 14	8	1.8
5. ES mdbl	* 150	-8	1.8
6. WN mdbl	* -150	8	1.8
7. WS mdbl	* -150	-8	1.8
8. EN mdbl	* 150	8	1.8
9. SE mdbl	* 14	-150	1.8
10. NW mdbl	* -17	150	1.8
11. SW mdbl	* -15	-150	1.8
12. NE mdbl	* 14	150	1.8
13. ES blk	* 600	-8	1.8
14. WN blk	* -600	8	1.8
15. WS blk	* -600	-8	1.8
16. EN blk	* 600	8	1.8
17. SE blk	* 14	-600	1.8
18. NW blk	* -17	600	1.8
19. SW blk	* -15	-600	1.8
20. NE blk	* 14	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 3

JOB: Forest 2003 NP2  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* * BRG * (DEG)	* PRED * CONC * (PPM)	CONC/LINK (PPM)									
			A	B	C	D	E	F	G	H		
1. SE	* 353.	* 1.3	* .0	.6	.0	.1	.0	.0	.0	.0	.1	
2. NW	* 172.	* .9	* .1	.0	.0	.0	.3	.0	.0	.0	.0	
3. SW	* 7.	* 1.3	* .0	.1	.0	.5	.0	.0	.0	.0	.0	
4. NE	* 353.	* 1.2	* .0	.7	.0	.0	.0	.0	.0	.0	.0	
5. ES mdbl	* 275.	* .7	* .0	.0	.0	.0	.0	.0	.0	.0	.2	
6. WN mdbl	* 96.	* .8	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
7. WS mdbl	* 83.	* .7	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
8. EN mdbl	* 265.	* .6	* .0	.0	.0	.0	.0	.0	.0	.0	.1	
9. SE mdbl	* 354.	* 1.1	* .5	.0	.0	.1	.0	.0	.0	.0	.0	
10. NW mdbl	* 172.	* 1.0	* .0	.1	.0	.4	.0	.0	.0	.0	.0	
11. SW mdbl	* 6.	* 1.0	* .0	.1	.0	.0	.4	.0	.0	.0	.0	
12. NE mdbl	* 188.	* 1.2	* .0	.7	.0	.1	.0	.0	.0	.0	.0	
13. ES blk	* 275.	* .6	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
14. WN blk	* 96.	* .8	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
15. WS blk	* 84.	* .8	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
16. EN blk	* 265.	* .6	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
17. SE blk	* 354.	* 1.0	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
18. NW blk	* 173.	* 1.1	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
19. SW blk	* 6.	* .9	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
20. NE blk	* 187.	* 1.2	* .0	.0	.0	.0	.0	.0	.0	.0	.0	

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Forest 2003 NP2  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM)											
		I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0
2. NW	*	.0	.0	.1	.0	.2	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.0	.0	.1	.0	.0	.2	.1	.0	.0	.0	.0	.0
4. NE	*	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.2	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.1
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.4
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.3
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.0
17. SE blk	*	.0	.0	.0	.0	.6	.0	.0	.2	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.3	.6	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.2	.0	.0	.5	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.8	.3	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Forest 2003 NP3  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## I. SITE VARIABLES

U= .5 M/S                      Z0= 100. CM                      ALT= 6. (M)  
 BRG= WORST CASE                VD= .0 CM/S  
 CLAS= 7 (G)                    VS= .0 CM/S  
 MIXH= 1000. M                 AMB= .0 PPM  
 SIGTH= 10. DEGREES            TEMP= 8.3 DEGREE (C)

## II. LINK VARIABLES

LINK DESCRIPTION	* X1	* Y1	* X2	* Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Telegra NBA	5	-150	5	0	* AG	397	7.6	.0	10.0
B. Telegra NBD	5	0	5	150	* AG	559	7.6	.0	10.0
C. Telegra NBL	0	-150	0	0	* AG	18	7.6	.0	10.0
D. Telegra SBA	-7	150	-7	0	* AG	418	7.6	.0	10.0
E. Telegra SBD	-7	0	-7	-150	* AG	461	7.6	.0	10.0
F. Telegra SBL	0	150	0	0	* AG	90	7.6	.0	10.0
G. 20th EBA	-150	-2	0	-2	* AG	240	7.6	.0	10.0
H. 20th EBD	0	-2	150	-2	* AG	336	7.6	.0	10.0
I. 20th EBL	-150	0	0	0	* AG	90	7.6	.0	10.0
J. 20th WBA	150	2	0	2	* AG	222	7.6	.0	10.0
K. 20th WBD	0	2	-150	2	* AG	150	7.6	.0	10.0
L. 20th WBL	150	0	0	0	* AG	31	7.6	.0	10.0
M. Telegra NBAX	5	-750	5	-150	* AG	415	7.6	.0	10.0
N. Telegra NBDX	5	150	5	750	* AG	559	7.6	.0	10.0
O. Telegra SBAX	-7	750	-7	150	* AG	508	7.6	.0	10.0
P. Telegra SBDX	-7	-150	-7	-750	* AG	461	7.6	.0	10.0
Q. 20th EBAX	-750	-2	-150	-2	* AG	330	7.6	.0	10.0

R. 20th EBDX	* 150	-2	750	-2	* AG	336	7.6	.0	10.0
S. 20th WBAX	* 750	2	150	2	* AG	253	7.6	.0	10.0
T. 20th WBDX	* -150	2	-750	2	* AG	150	7.6	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 2

JOB: Forest 2003 NP3  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## III. RECEPTOR LOCATIONS

RECEPTOR	* X	* Y	* Z
1. SE	13	-8	1.8
2. NW	-14	8	1.8
3. SW	-14	-8	1.8
4. NE	12	8	1.8
5. ES mdbl	150	-8	1.8
6. WN mdbl	-150	8	1.8
7. WS mdbl	-150	-8	1.8
8. EN mdbl	150	8	1.8
9. SE mdbl	13	-150	1.8
10. NW mdbl	-14	150	1.8
11. SW mdbl	-14	-150	1.8
12. NE mdbl	12	150	1.8
13. ES blk	600	-8	1.8
14. WN blk	-600	8	1.8
15. WS blk	-600	-8	1.8
16. EN blk	600	8	1.8
17. SE blk	13	-600	1.8
18. NW blk	-14	600	1.8
19. SW blk	-14	-600	1.8
20. NE blk	12	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 3

JOB: Forest 2003 NP3  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* BRG (DEG)	* PRED * CONC (PPM)	CONC/LINK (PPM)									
			A	B	C	D	E	F	G	H		
1. SE	* 353.	* 1.3	* .0	.5	.0	.1	.0	.0	.0	.0	.2	
2. NW	* 96.	* 1.1	* .0	.2	.0	.2	.0	.0	.0	.0	.2	
3. SW	* 7.	* 1.2	* .0	.2	.0	.4	.0	.0	.1	.0	.0	
4. NE	* 187.	* 1.1	* .4	.0	.0	.0	.1	.0	.0	.1	.0	
5. ES mdbl	* 276.	* .9	* .0	.0	.0	.0	.0	.0	.0	.4	.0	
6. WN mdbl	* 95.	* .8	* .0	.0	.0	.0	.0	.0	.2	.0	.0	
7. WS mdbl	* 84.	* .8	* .0	.0	.0	.0	.0	.0	.3	.0	.0	
8. EN mdbl	* 264.	* .8	* .0	.0	.0	.0	.0	.0	.0	.2	.0	
9. SE mdbl	* 354.	* .9	* .4	.0	.0	.1	.0	.0	.0	.0	.0	
10. NW mdbl	* 173.	* 1.0	* .0	.2	.0	.5	.0	.0	.0	.0	.0	
11. SW mdbl	* 6.	* 1.1	* .1	.1	.0	.0	.5	.0	.0	.0	.0	
12. NE mdbl	* 187.	* 1.1	* .0	.6	.0	.1	.0	.0	.0	.0	.0	
13. ES blk	* 276.	* .9	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
14. WN blk	* 95.	* .7	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
15. WS blk	* 85.	* .8	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
16. EN blk	* 264.	* .8	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
17. SE blk	* 354.	* .9	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
18. NW blk	* 173.	* 1.1	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
19. SW blk	* 6.	* 1.0	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
20. NE blk	* 187.	* 1.1	* .0	.0	.0	.0	.0	.0	.0	.0	.0	

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Forest 2003 NP3  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM)											
		I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0
2. NW	*	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0
3. SW	*	.0	.0	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0
4. NE	*	.0	.1	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0
5. ES mdbl	*	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.2	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.2
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.2
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	.0	.0
17. SE blk	*	.0	.0	.0	.0	.5	.0	.0	.2	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.3	.6	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.2	.0	.0	.6	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.7	.3	.0	.0	.0	.0	.0



CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Forest 2003 NP4  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## I. SITE VARIABLES

U= .5 M/S                    Z0= 100. CM                    ALT= 6. (M)  
 BRG= WORST CASE            VD= .0 CM/S  
 CLAS= 7 (G)                VS= .0 CM/S  
 MIXH= 1000. M              AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 8.3 DEGREE (C)

## II. LINK VARIABLES

LINK DESCRIPTION	* X1	* Y1	* X2	* Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Telegra NBA	4	-150	4	0	* AG	440	6.8	.0	10.0
B. Telegra NBD	4	0	4	150	* AG	440	6.8	.0	10.0
C. Telegra NBL	0	-150	0	0	* AG	14	6.8	.0	10.0
D. Telegra SBA	-4	150	-4	0	* AG	428	6.8	.0	10.0
E. Telegra SBD	-4	0	-4	-150	* AG	400	6.8	.0	10.0
F. Telegra SBL	0	150	0	0	* AG	0	6.8	.0	10.0
G. Williams EBA	-150	0	0	0	* AG	0	6.8	.0	10.0
H. William EBD	0	0	150	0	* AG	0	6.8	.0	10.0
I. William EBL	-150	0	0	0	* AG	0	6.8	.0	10.0
J. William WBA	150	0	0	0	* AG	0	6.8	.0	10.0
K. William WBD	0	0	-150	0	* AG	42	6.8	.0	10.0
L. William WBL	150	0	0	0	* AG	0	6.8	.0	10.0
M. Telegra NBAX	4	-750	4	-150	* AG	454	6.8	.0	10.0
N. Telegra NBDX	4	150	4	750	* AG	440	6.8	.0	10.0
O. Telegra SBAX	-4	750	-4	150	* AG	428	6.8	.0	10.0
P. Telegra SBDX	-4	-150	-4	-750	* AG	400	6.8	.0	10.0
Q. William EBAX	-750	0	-150	0	* AG	0	6.8	.0	10.0

R. William EBDX	* 150	0	750	0	* AG	0	6.8	.0	10.0
S. William WBAX	* 750	0	150	0	* AG	0	6.8	.0	10.0
T. William WBDX	* -150	0	-750	0	* AG	42	6.8	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 2

JOB: Forest 2003 NP4  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## III. RECEPTOR LOCATIONS

RECEPTOR	* X	* Y	* Z
1. SE	10	-7	1.8
2. NW	-10	7	1.8
3. SW	-10	-7	1.8
4. NE	10	7	1.8
5. ES mdbl	150	-7	1.8
6. WN mdbl	-150	7	1.8
7. WS mdbl	-150	-7	1.8
8. EN mdbl	150	7	1.8
9. SE mdbl	10	-150	1.8
10. NW mdbl	-10	150	1.8
11. SW mdbl	-10	-150	1.8
12. NE mdbl	10	150	1.8
13. ES blk	600	-7	1.8
14. WN blk	-600	7	1.8
15. WS blk	-600	-7	1.8
16. EN blk	600	7	1.8
17. SE blk	10	-600	1.8
18. NW blk	-10	600	1.8
19. SW blk	-10	-600	1.8
20. NE blk	10	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 3

JOB: Forest 2003 NP4  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Forest 2003 NP4  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* BRG (DEG)	* PRED CONC (PPM)	CONC/LINK (PPM)									
			A	B	C	D	E	F	G	H		
1. SE	* 186.	* .8	* .4	.0	.0	.0	.2	.0	.0	.0	.0	
2. NW	* 174.	* .8	* .2	.0	.0	.0	.4	.0	.0	.0	.0	
3. SW	* 6.	* .8	* .0	.2	.0	.4	.0	.0	.0	.0	.0	
4. NE	* 354.	* .8	* .0	.4	.0	.2	.0	.0	.0	.0	.0	
5. ES mdbl	* 339.	* .2	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
6. WN mdbl	* 157.	* .2	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
7. WS mdbl	* 23.	* .2	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
8. EN mdbl	* 201.	* .1	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
9. SE mdbl	* 354.	* .9	* .4	.0	.0	.0	.2	.0	.0	.0	.0	
10. NW mdbl	* 174.	* .8	* .0	.2	.0	.4	.0	.0	.0	.0	.0	
11. SW mdbl	* 6.	* .8	* .2	.0	.0	.0	.4	.0	.0	.0	.0	
12. NE mdbl	* 186.	* .9	* .0	.4	.0	.2	.0	.0	.0	.0	.0	
13. ES blk	* 309.	* .0	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
14. WN blk	* 95.	* .1	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
15. WS blk	* 85.	* .1	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
16. EN blk	* 309.	* .0	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
17. SE blk	* 354.	* .9	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
18. NW blk	* 174.	* .9	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
19. SW blk	* 6.	* .9	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
20. NE blk	* 186.	* .9	* .0	.0	.0	.0	.0	.0	.0	.0	.0	

RECEPTOR	CONC/LINK (PPM)											
	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	* .0	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0
2. NW	* .0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
3. SW	* .0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0
4. NE	* .0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0
5. ES mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	* .0	.0	.0	.0	.5	.0	.0	.3	.0	.0	.0	.0
18. NW blk	* .0	.0	.0	.0	.0	.3	.5	.0	.0	.0	.0	.0
19. SW blk	* .0	.0	.0	.0	.3	.0	.0	.5	.0	.0	.0	.0
20. NE blk	* .0	.0	.0	.0	.0	.5	.3	.0	.0	.0	.0	.0

R. 19th EBDX	*	150	0	750	0	*	AG	0	7.6	.0	10.0
S. 19th WBAX	*	750	2	150	2	*	AG	702	7.6	.0	10.0
T. 19th WBDX	*	-150	2	-750	2	*	AG	655	7.6	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Forest 2003 NP5  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 2

JOB: Forest 2003 NP5  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	6. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	8.3 DEGREE (C)		

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
		X	Y	Z
1. SE	*	10	-7	1.8
2. NW	*	-14	8	1.8
3. SW	*	-13	-7	1.8
4. NE	*	10	8	1.8
5. ES mdbl	*	150	-7	1.8
6. WN mdbl	*	-150	8	1.8
7. WS mdbl	*	-150	-7	1.8
8. EN mdbl	*	150	8	1.8
9. SE mdbl	*	10	-150	1.8
10. NW mdbl	*	-14	150	1.8
11. SW mdbl	*	-13	-150	1.8
12. NE mdbl	*	10	150	1.8
13. ES blk	*	600	-7	1.8
14. WN blk	*	-600	8	1.8
15. WS blk	*	-600	-7	1.8
16. EN blk	*	600	8	1.8
17. SE blk	*	10	-600	1.8
18. NW blk	*	-14	600	1.8
19. SW blk	*	-13	-600	1.8
20. NE blk	*	10	600	1.8

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M)				*	TYPE	VPH	EF (G/MI)	H (M)	W (M)
		X1	Y1	X2	Y2						
A. Telegra NBA	*	4	-150	4	0	*	AG	355	7.6	.0	10.0
B. Telegra NBD	*	4	0	4	150	*	AG	477	7.6	.0	10.0
C. Telegra NBL	*	0	-150	0	0	*	AG	57	7.6	.0	10.0
D. Telegra SBA	*	-5	150	-5	0	*	AG	423	7.6	.0	10.0
E. Telegra SBD	*	-5	0	-5	-150	*	AG	405	7.6	.0	10.0
F. Telegra SBL	*	0	150	0	0	*	AG	0	7.6	.0	10.0
G. 19th EBA	*	-150	0	0	0	*	AG	0	7.6	.0	10.0
H. 19th EBD	*	0	0	150	0	*	AG	0	7.6	.0	10.0
I. 19th EBL	*	-150	0	0	0	*	AG	0	7.6	.0	10.0
J. 19th WBA	*	150	2	0	2	*	AG	674	7.6	.0	10.0
K. 19th WBD	*	0	2	-150	2	*	AG	655	7.6	.0	10.0
L. 19th WBL	*	150	0	0	0	*	AG	28	7.6	.0	10.0
M. Telegra NBAX	*	4	-750	4	-150	*	AG	412	7.6	.0	10.0
N. Telegra NBDX	*	4	150	4	750	*	AG	477	7.6	.0	10.0
O. Telegra SBAX	*	-5	750	-5	150	*	AG	423	7.6	.0	10.0
P. Telegra SBDX	*	-5	-150	-5	-750	*	AG	405	7.6	.0	10.0
Q. 19th EBAX	*	-750	0	-150	0	*	AG	0	7.6	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 3

JOB: Forest 2003 NP5  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Forest 2003 NP5  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* * BRG * (DEG)	* PRED * CONC * (PPM)	CONC/LINK (PPM)									
			A	B	C	D	E	F	G	H		
1. SE	* 354.	* 1.2 *	.0	.5	.0	.2	.0	.0	.0	.0	.0	
2. NW	* 96.	* 1.2 *	.0	.1	.0	.2	.0	.0	.0	.0	.0	
3. SW	* 7.	* 1.1 *	.0	.2	.0	.4	.0	.0	.0	.0	.0	
4. NE	* 187.	* 1.2 *	.4	.0	.0	.0	.2	.0	.0	.0	.0	
5. ES mdbl	* 276.	* .8 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
6. WN mdbl	* 96.	* 1.0 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7. WS mdbl	* 84.	* .8 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8. EN mdbl	* 264.	* 1.0 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
9. SE mdbl	* 354.	* 1.0 *	.4	.0	.0	.0	.2	.0	.0	.0	.0	
10. NW mdbl	* 173.	* .9 *	.0	.2	.0	.4	.0	.0	.0	.0	.0	
11. SW mdbl	* 6.	* .9 *	.1	.0	.0	.0	.4	.0	.0	.0	.0	
12. NE mdbl	* 187.	* 1.0 *	.0	.5	.0	.2	.0	.0	.0	.0	.0	
13. ES blk	* 276.	* .8 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
14. WN blk	* 96.	* .9 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
15. WS blk	* 84.	* .8 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
16. EN blk	* 264.	* 1.0 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17. SE blk	* 354.	* 1.0 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
18. NW blk	* 174.	* .9 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
19. SW blk	* 6.	* .9 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20. NE blk	* 186.	* 1.0 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	

RECEPTOR	* * *	CONC/LINK (PPM)											
		I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.3	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0
2. NW	*	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
3. SW	*	.0	.0	.3	.0	.0	.1	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.3	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
5. ES mdbl	*	.0	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.1	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	.0
17. SE blk	*	.0	.0	.0	.0	.5	.0	.0	.3	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.3	.4	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.3	.0	.0	.5	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.6	.3	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Forest 2003 NP6  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## I. SITE VARIABLES

U= .5 M/S                    Z0= 100. CM                    ALT= 6. (M)  
 BRG= WORST CASE            VD= .0 CM/S  
 CLAS= 7 (G)                VS= .0 CM/S  
 MIXH= 1000. M              AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 8.3 DEGREE (C)

## II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M)				* TYPE	VPH	EF (G/MI)	H (M)	W (M)
	* X1	Y1	X2	Y2					
A. Broad NBA	* 9	-150	9	0	* AG	934	8.6	.0	10.0
B. Broad NBD	* 9	0	9	150	* AG	903	8.6	.0	10.0
C. Broad NBL	* 0	-150	0	0	* AG	301	8.6	.0	10.0
D. Broad SBA	* -7	150	-7	0	* AG	1619	8.6	.0	10.0
E. Broad SBD	* -7	0	-7	-150	* AG	1664	8.6	.0	10.0
F. Broad SBL	* 0	150	0	0	* AG	59	8.6	.0	10.0
G. Grand EBA	* -150	-7	0	-7	* AG	671	8.6	.0	10.0
H. Grand EBD	* 0	-7	150	-7	* AG	844	8.6	.0	10.0
I. Grand EBL	* -150	0	0	0	* AG	136	8.6	.0	10.0
J. Grand WEA	* 150	2	0	2	* AG	389	8.6	.0	10.0
K. Grand WED	* 0	2	-150	2	* AG	782	8.6	.0	10.0
L. Grand WEL	* 150	0	0	0	* AG	84	8.6	.0	10.0
M. Broad NBAX	* 9	-750	9	-150	* AG	1235	8.6	.0	10.0
N. Broad NEDX	* 9	150	9	750	* AG	903	8.6	.0	10.0
O. Broad SBAX	* -7	750	-7	150	* AG	1678	8.6	.0	10.0
P. Broad SBDX	* -7	-150	-7	-750	* AG	1664	8.6	.0	10.0
Q. Grand EBAX	* -750	-7	-150	-7	* AG	807	8.6	.0	10.0

R. Grand EBDX	* 150	-7	750	-7	* AG	844	8.6	.0	10.0
S. Grand WBAX	* 750	2	150	2	* AG	473	8.6	.0	10.0
T. Grand WBDX	* -150	2	-750	2	* AG	782	8.6	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 2

JOB: Forest 2003 NP6  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M)		
	* X	Y	Z
1. SE	* 17	-14	1.8
2. NW	* -14	8	1.8
3. SW	* -14	-14	1.8
4. NE	* 15	8	1.8
5. ES mdbl	* 150	-14	1.8
6. WN mdbl	* -150	8	1.8
7. WS mdbl	* -150	-14	1.8
8. EN mdbl	* 150	8	1.8
9. SE mdbl	* 17	-150	1.8
10. NW mdbl	* -14	150	1.8
11. SW mdbl	* -14	-150	1.8
12. NE mdbl	* 15	150	1.8
13. ES blk	* 600	-14	1.8
14. WN blk	* -600	8	1.8
15. WS blk	* -600	-14	1.8
16. EN blk	* 600	8	1.8
17. SE blk	* 17	-600	1.8
18. NW blk	* -14	600	1.8
19. SW blk	* -14	-600	1.8
20. NE blk	* 15	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 3

JOB: Forest 2003 NP6  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* BRG (DEG)	* PRED * CONC (PPM)	CONC/LINK (PPM)									
			A	B	C	D	E	F	G	H		
1. SE	277.	2.7	.5	.0	.1	.0	.4	.0	.6	.2		
2. NW	172.	3.6	.2	.0	.2	.1	1.7	.0	.2	.0		
3. SW	8.	3.3	.0	.3	.0	1.4	.4	.0	.4	.0		
4. NE	188.	2.8	1.0	.0	.2	.0	.4	.0	.0	.3		
5. ES mdbl	276.	2.0	.0	.0	.0	.0	.0	.0	.1	.9		
6. WN mdbl	97.	2.1	.0	.0	.0	.0	.1	.0	.3	.2		
7. WS mdbl	83.	1.9	.0	.0	.0	.1	.0	.0	.8	.1		
8. EN mdbl	264.	1.8	.0	.0	.0	.0	.1	.0	.1	.3		
9. SE mdbl	352.	2.2	.8	.1	.1	.3	.3	.0	.0	.0		
10. NW mdbl	173.	2.9	.2	.2	.0	1.7	.2	.0	.0	.0		
11. SW mdbl	8.	3.0	.2	.2	.2	.1	1.8	.0	.0	.0		
12. NE mdbl	187.	2.4	.1	1.0	.0	.3	.3	.0	.0	.0		
13. ES blk	276.	1.9	.0	.0	.0	.0	.0	.0	.0	.0		
14. WN blk	97.	2.0	.0	.0	.0	.0	.0	.0	.0	.0		
15. WS blk	84.	2.0	.0	.0	.0	.0	.0	.0	.0	.0		
16. EN blk	264.	1.6	.0	.0	.0	.0	.0	.0	.0	.0		
17. SE blk	352.	2.3	.0	.0	.0	.0	.0	.0	.0	.0		
18. NW blk	173.	2.9	.0	.0	.0	.0	.0	.0	.0	.0		
19. SW blk	7.	3.0	.0	.0	.0	.0	.0	.0	.0	.0		
20. NE blk	187.	2.3	.0	.0	.0	.0	.0	.0	.0	.0		

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Forest 2003 NP6  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM)											
		I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.4	.0	.0	.0	.0	.0	.2	.0	.0	.2
2. NW	*	.0	.0	.4	.0	.4	.0	.0	.2	.0	.0	.0	.0
3. SW	*	.0	.0	.3	.0	.0	.3	.2	.0	.0	.0	.0	.0
4. NE	*	.0	.2	.0	.0	.2	.0	.0	.4	.0	.0	.0	.0
5. ES mdbl	*	.0	.2	.2	.0	.0	.0	.0	.0	.1	.0	.0	.1
6. WN mdbl	*	.2	.0	.9	.0	.0	.0	.0	.0	.0	.1	.0	.0
7. WS mdbl	*	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.5	.1	.0	.0	.0	.0	.0	.1	.0	.0	.1
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.1	.0	.0	.2	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	.3	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.0	1.1
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	1.1	.0	.0	.5
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.7	.0
17. SE blk	*	.0	.0	.0	.0	1.3	.0	.0	.7	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.5	2.0	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.6	.0	.0	2.0	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	1.2	.7	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Forest 2003 NP7  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## I. SITE VARIABLES

U= .5 M/S                    Z0= 100. CM                    ALT= 6. (M)  
 BRG= WORST CASE            VD= .0 CM/S  
 CLAS= 7 (G)                VS= .0 CM/S  
 MIXH= 1000. M              AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 8.3 DEGREE (C)

## II. LINK VARIABLES

LINK DESCRIPTION	* X1	* Y1	* X2	* Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Front NBA	* 7	-150	7	0	* AG	299	8.6	.0	10.0
B. Front NED	* 7	0	7	150	* AG	836	8.6	.0	10.0
C. Front NBL	* 0	-150	0	0	* AG	28	8.6	.0	10.0
D. Front SBA	* -5	150	-5	0	* AG	67	8.6	.0	10.0
E. Front SBD	* -5	0	-5	-150	* AG	218	8.6	.0	10.0
F. Front SBL	* 0	150	0	0	* AG	84	8.6	.0	10.0
G. Grand EBA	* -150	-7	0	-7	* AG	370	8.6	.0	10.0
H. Grand EBD	* 0	-7	150	-7	* AG	535	8.6	.0	10.0
I. Grand EBL	* -150	0	0	0	* AG	381	8.6	.0	10.0
J. Grand WBA	* 150	7	0	7	* AG	1212	8.6	.0	10.0
K. Grand WED	* 0	7	-150	7	* AG	947	8.6	.0	10.0
L. Grand WBL	* 150	0	0	0	* AG	95	8.6	.0	10.0
M. Front NBAX	* 7	-750	7	-150	* AG	327	8.6	.0	10.0
N. Front NBDX	* 7	150	7	750	* AG	836	8.6	.0	10.0
O. Front SBAX	* -5	750	-5	150	* AG	151	8.6	.0	10.0
P. Front SBDX	* -5	-150	-5	-750	* AG	218	8.6	.0	10.0
Q. Grand EBAX	* -750	-7	-150	-7	* AG	751	8.6	.0	10.0

R. Grand EBDX	* 150	-7	750	-7	* AG	535	8.6	.0	10.0
S. Grand WBAX	* 750	7	150	7	* AG	1307	8.6	.0	10.0
T. Grand WBDX	* -150	7	-750	7	* AG	947	8.6	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 2

JOB: Forest 2003 NP7  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## III. RECEPTOR LOCATIONS

RECEPTOR	* X	* Y	* Z
1. SE	* 14	-14	1.8
2. NW	* -12	14	1.8
3. SW	* -12	-14	1.8
4. NE	* 14	14	1.8
5. ES mdbl	* 150	-14	1.8
6. WN mdbl	* -150	14	1.8
7. WS mdbl	* -150	-14	1.8
8. EN mdbl	* 150	14	1.8
9. SE mdbl	* 14	-150	1.8
10. NW mdbl	* -12	150	1.8
11. SW mdbl	* -12	-150	1.8
12. NE mdbl	* 14	150	1.8
13. ES blk	* 600	-14	1.8
14. WN blk	* -600	14	1.8
15. WS blk	* -600	-14	1.8
16. EN blk	* 600	14	1.8
17. SE blk	* 14	-600	1.8
18. NW blk	* -12	600	1.8
19. SW blk	* -12	-600	1.8
20. NE blk	* 14	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 3

JOB: Forest 2003 NP7  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Forest 2003 NP7  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* BRG (DEG)	* PRED * CONC (PPM)	CONC/LINK (PPM)									
			A	B	C	D	E	F	G	H		
1. SE	* 354.	* 1.9	* .0	.8	.0	.0	.0	.0	.0	.0	.3	
2. NW	* 97.	* 2.4	* .0	.3	.0	.0	.0	.0	.0	.0	.2	
3. SW	* 82.	* 1.8	* .1	.0	.0	.0	.1	.0	.0	.0	.6	
4. NE	* 262.	* 2.5	* .0	.5	.0	.0	.0	.0	.1	.0	.0	
5. ES mdbl	* 278.	* 1.7	* .0	.0	.0	.0	.0	.0	.0	.7	.0	
6. WN mdbl	* 97.	* 2.0	* .0	.0	.0	.0	.0	.0	.1	.1	.0	
7. WS mdbl	* 83.	* 1.6	* .0	.0	.0	.0	.0	.0	.5	.0	.0	
8. EN mdbl	* 263.	* 2.2	* .0	.0	.0	.0	.0	.0	.0	.1	.0	
9. SE mdbl	* 355.	* 1.0	* .4	.1	.0	.0	.0	.0	.0	.0	.0	
10. NW mdbl	* 170.	* .9	* .0	.3	.0	.1	.0	.0	.0	.0	.0	
11. SW mdbl	* 6.	* 1.0	* .0	.2	.0	.0	.3	.0	.0	.0	.0	
12. NE mdbl	* 187.	* 1.5	* .0	1.0	.0	.0	.0	.0	.0	.0	.0	
13. ES blk	* 277.	* 1.7	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
14. WN blk	* 96.	* 1.9	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
15. WS blk	* 83.	* 1.8	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
16. EN blk	* 263.	* 2.2	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
17. SE blk	* 354.	* .9	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
18. NW blk	* 173.	* 1.0	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
19. SW blk	* 6.	* .8	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
20. NE blk	* 186.	* 1.5	* .0	.0	.0	.0	.0	.0	.0	.0	.0	

RECEPTOR	CONC/LINK (PPM)											
	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	* .0	.4	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0
2. NW	* .0	1.2	.2	.0	.0	.0	.0	.0	.0	.2	.2	.0
3. SW	* .0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0
4. NE	* .2	.3	.9	.0	.0	.0	.0	.0	.2	.0	.0	.2
5. ES mdbl	* .0	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.1
6. WN mdbl	* .2	.1	1.1	.0	.0	.0	.0	.0	.0	.0	.1	.0
7. WS mdbl	* .2	.2	.2	.0	.0	.0	.0	.0	.0	.0	.2	.0
8. EN mdbl	* .0	1.4	.1	.0	.0	.0	.0	.0	.1	.0	.0	.1
9. SE mdbl	* .0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0
10. NW mdbl	* .0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	* .0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0
12. NE mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	.6
14. WN blk	* .0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	1.2
15. WS blk	* .0	.0	.0	.0	.0	.0	.0	.0	1.0	.0	.0	.5
16. EN blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	1.7
17. SE blk	* .0	.0	.0	.0	.5	.0	.0	.2	.0	.0	.0	.0
18. NW blk	* .0	.0	.0	.0	.0	.5	.3	.0	.0	.0	.0	.0
19. SW blk	* .0	.0	.0	.0	.2	.0	.0	.3	.0	.0	.0	.0
20. NE blk	* .0	.0	.0	.0	.0	1.1	.1	.0	.0	.0	.0	.0



R. Grand EBDX	*	150	-11	750	-11	*	AG	1260	7.6	.0	10.0
S. Grand WBAX	*	750	11	150	11	*	AG	928	7.6	.0	10.0
T. Grand WBDX	*	-150	11	-750	11	*	AG	593	7.6	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 1

JOB: Forest 2003 NP8  
RUN: Hour 1 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

## I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	6. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AME=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	8.3 DEGREE (C)		

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Forest 2003 NP8  
RUN: Hour 1 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

## III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
		X	Y	Z
1. SE	*	17	-17	1.8
2. NW	*	-11	17	1.8
3. SW	*	-10	-17	1.8
4. NE	*	15	17	1.8
5. ES mdbl	*	150	-17	1.8
6. WN mdbl	*	-150	17	1.8
7. WS mdbl	*	-150	-17	1.8
8. EN mdbl	*	150	17	1.8
9. SE mdbl	*	17	-150	1.8
10. NW mdbl	*	-11	150	1.8
11. SW mdbl	*	-10	-150	1.8
12. NE mdbl	*	15	150	1.8
13. ES blk	*	600	-17	1.8
14. WN blk	*	-600	17	1.8
15. WS blk	*	-600	-17	1.8
16. EN blk	*	600	17	1.8
17. SE blk	*	17	-600	1.8
18. NW blk	*	-11	600	1.8
19. SW blk	*	-10	-600	1.8
20. NE blk	*	15	600	1.8

## II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M)				*	TYPE	VPH	EF (G/MI)	H (M)	W (M)
		X1	Y1	X2	Y2						
A. Harris NBA	*	9	-150	9	0	*	AG	2356	7.6	.0	10.0
B. Harris NBD	*	9	0	9	150	*	AG	1887	7.6	.0	10.0
C. Harris NBL	*	0	-150	0	0	*	AG	8	7.6	.0	10.0
D. Harris SBA	*	-4	150	-4	0	*	AG	687	7.6	.0	10.0
E. Harris SBD	*	-4	0	-4	-150	*	AG	1097	7.6	.0	10.0
F. Harris SBL	*	0	150	0	0	*	AG	0	7.6	.0	10.0
G. Grand EBA	*	-150	-11	0	-11	*	AG	694	7.6	.0	10.0
H. Grand EBD	*	0	-11	150	-11	*	AG	1260	7.6	.0	10.0
I. Grand EBL	*	-150	0	0	0	*	AG	164	7.6	.0	10.0
J. Grand WBA	*	150	11	0	11	*	AG	617	7.6	.0	10.0
K. Grand WBD	*	0	11	-150	11	*	AG	593	7.6	.0	10.0
L. Grand WBL	*	150	0	0	0	*	AG	311	7.6	.0	10.0
M. Harris NBAX	*	9	-750	9	-150	*	AG	2364	7.6	.0	10.0
N. Harris NBDX	*	9	150	9	750	*	AG	1887	7.6	.0	10.0
O. Harris SBAX	*	-4	750	-4	150	*	AG	687	7.6	.0	10.0
P. Harris SBDX	*	-4	-150	-4	-750	*	AG	1097	7.6	.0	10.0
Q. Grand EBAX	*	-750	-11	-150	-11	*	AG	858	7.6	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 3

JOB: Forest 2003 NP8  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* BRG (DEG)	* PRED * CONC (PPM)	CONC/LINK (PPM)							
			A	B	C	D	E	F	G	H
1. SE	* 352.	* 2.9 *	.2	1.2	.0	.2	.0	.0	.0	.6
2. NW	* 172.	* 2.6 *	.6	.0	.0	.0	.8	.0	.2	.0
3. SW	* 83.	* 3.0 *	.6	.0	.0	.0	.5	.0	.0	1.1
4. NE	* 187.	* 3.6 *	1.6	.4	.0	.0	.3	.0	.0	.3
5. ES mdbl	* 278.	* 2.2 *	.0	.1	.0	.0	.0	.0	.0	1.3
6. WN mdbl	* 97.	* 1.7 *	.1	.0	.0	.0	.0	.0	.0	.2
7. WS mdbl	* 84.	* 1.7 *	.0	.0	.0	.0	.0	.0	.7	.2
8. EN mdbl	* 261.	* 1.7 *	.1	.0	.0	.0	.0	.0	.1	.2
9. SE mdbl	* 352.	* 2.6 *	1.6	.2	.0	.1	.3	.0	.0	.0
10. NW mdbl	* 173.	* 2.0 *	.3	.4	.0	.6	.1	.0	.0	.0
11. SW mdbl	* 8.	* 2.4 *	.5	.3	.0	.0	1.1	.0	.0	.1
12. NE mdbl	* 187.	* 2.8 *	.2	1.7	.0	.2	.2	.0	.0	.0
13. ES blk	* 277.	* 2.1 *	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	* 97.	* 1.4 *	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	* 84.	* 1.6 *	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	* 263.	* 1.9 *	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	* 352.	* 2.6 *	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	* 173.	* 1.9 *	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	* 7.	* 2.5 *	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	* 187.	* 2.7 *	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Forest 2003 NP8  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM)											
	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	* .0	* .1	* .0	* .0	* .0	* .2	* .2	* .0	* .0	* .0	* .0	* .0
2. NW	* .0	* .0	* .3	* .0	* .4	* .0	* .0	* .2	* .0	* .0	* .0	* .0
3. SW	* .0	* .0	* .0	* .1	* .0	* .0	* .0	* .0	* .0	* .2	* .3	* .0
4. NE	* .0	* .3	* .0	* .0	* .3	* .0	* .0	* .3	* .0	* .0	* .0	* .0
5. ES mdbl	* .0	* .0	* .1	* .1	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
6. WN mdbl	* .0	* .0	* .6	* .0	* .0	* .0	* .0	* .0	* .0	* .2	* .0	* .0
7. WS mdbl	* .0	* .1	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .1	* .2	* .0
8. EN mdbl	* .0	* .7	* .0	* .1	* .0	* .0	* .0	* .0	* .1	* .0	* .0	* .0
9. SE mdbl	* .0	* .0	* .0	* .0	* .0	* .1	* .0	* .0	* .0	* .0	* .0	* .0
10. NW mdbl	* .0	* .0	* .0	* .0	* .2	* .0	* .0	* .1	* .0	* .0	* .0	* .0
11. SW mdbl	* .0	* .0	* .0	* .0	* .0	* .2	* .0	* .0	* .0	* .0	* .0	* .0
12. NE mdbl	* .0	* .0	* .0	* .0	* .2	* .0	* .0	* .1	* .0	* .0	* .0	* .0
13. ES blk	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .1	* .4	* .3
14. WN blk	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .3	* .0	* .0	* .7
15. WS blk	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .2
16. EN blk	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .4	* .1	* .0
17. SE blk	* .0	* .0	* .0	* .0	1.8	* .0	* .5	* .0	* .0	* .0	* .0	* .0
18. NW blk	* .0	* .0	* .0	* .0	* .0	* .7	* .7	* .0	* .0	* .0	* .0	* .0
19. SW blk	* .0	* .0	* .0	* .0	* .9	* .0	* .0	1.3	* .0	* .0	* .0	* .0
20. NE blk	* .0	* .0	* .0	* .0	* .0	2.0	* .4	* .0	* .0	* .0	* .0	* .0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Forest 2003 NP9  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

R. 18th EBDX	*	150	0	750	0	* AG	0	7.6	.0	10.0
S. 18th WBAX	*	750	4	150	4	* AG	852	7.6	.0	10.0
T. 18th WBDX	*	-150	4	-750	4	* AG	327	7.6	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 2

JOB: Forest 2003 NP9  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	6. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	8.3 DEGREE (C)		

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M)		
	X	Y	Z
1. SE	20	-7	1.8
2. NW	-7	10	1.8
3. SW	-7	-7	1.8
4. NE	20	10	1.8
5. ES mdbl	150	-7	1.8
6. WN mdbl	-150	10	1.8
7. WS mdbl	-150	-7	1.8
8. EN mdbl	150	10	1.8
9. SE mdbl	20	-150	1.8
10. NW mdbl	-7	150	1.8
11. SW mdbl	-7	-150	1.8
12. NE mdbl	20	150	1.8
13. ES blk	600	-7	1.8
14. WN blk	-600	10	1.8
15. WS blk	-600	-7	1.8
16. EN blk	600	10	1.8
17. SE blk	20	-600	1.8
18. NW blk	-7	600	1.8
19. SW blk	-7	-600	1.8
20. NE blk	20	600	1.8

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M)				* TYPE	VPH	EF (G/MI)	H (M)	W (M)
	X1	Y1	X2	Y2					
A. Castro NBA	11	-150	11	0	* AG	1698	7.6	.0	10.0
B. Castro NBD	11	0	11	150	* AG	2435	7.6	.0	10.0
C. Castro NBL	0	-150	0	0	* AG	212	7.6	.0	10.0
D. Castro SBA	0	150	0	0	* AG	0	7.6	.0	10.0
E. Castro SBD	0	0	0	-150	* AG	0	7.6	.0	10.0
F. Castro SBL	0	150	0	0	* AG	0	7.6	.0	10.0
G. 18th EBA	-150	0	0	0	* AG	0	7.6	.0	10.0
H. 18th EBD	0	0	150	0	* AG	0	7.6	.0	10.0
I. 18th EBL	-150	0	0	0	* AG	0	7.6	.0	10.0
J. 18th WBA	150	4	0	4	* AG	852	7.6	.0	10.0
K. 18th WBD	0	4	-150	4	* AG	327	7.6	.0	10.0
L. 18th WBL	150	0	0	0	* AG	0	7.6	.0	10.0
M. Castro NBAX	11	-750	11	-150	* AG	1910	7.6	.0	10.0
N. Castro NBDX	11	150	11	750	* AG	2435	7.6	.0	10.0
O. Castro SBAX	-4	750	-4	150	* AG	0	7.6	.0	10.0
P. Castro SBDX	-4	-150	-4	-750	* AG	0	7.6	.0	10.0
Q. 18th EBAX	-750	0	-150	0	* AG	0	7.6	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 3

JOB: Forest 2003 NP9  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* BRG (DEG)	* PRED * CONC (PPM)	CONC/LINK (PPM)									
			A	B	C	D	E	F	G	H		
1. SE	* 352.	* 2.1 *	.0	1.4	.0	.0	.0	.0	.0	.0	.0	
2. NW	* 96.	* 1.7 *	.0	.7	.0	.0	.0	.0	.0	.0	.0	
3. SW	* 84.	* 1.3 *	.5	.0	.1	.0	.0	.0	.0	.0	.0	
4. NE	* 188.	* 1.9 *	1.1	.0	.0	.0	.0	.0	.0	.0	.0	
5. ES mdbl	* 280.	* .9 *	.0	.2	.0	.0	.0	.0	.0	.0	.0	
6. WN mdbl	* 93.	* .8 *	.0	.1	.0	.0	.0	.0	.0	.0	.0	
7. WS mdbl	* 85.	* .7 *	.0	.1	.0	.0	.0	.0	.0	.0	.0	
8. EN mdbl	* 262.	* 1.2 *	.1	.0	.0	.0	.0	.0	.0	.0	.0	
9. SE mdbl	* 354.	* 1.6 *	1.0	.3	.0	.0	.0	.0	.0	.0	.0	
10. NW mdbl	* 171.	* 1.2 *	.2	.7	.0	.0	.0	.0	.0	.0	.0	
11. SW mdbl	* 8.	* 1.3 *	.5	.3	.3	.0	.0	.0	.0	.0	.0	
12. NE mdbl	* 188.	* 1.8 *	.2	1.4	.0	.0	.0	.0	.0	.0	.0	
13. ES blk	* 276.	* .9 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
14. WN blk	* 95.	* .6 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
15. WS blk	* 84.	* .5 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
16. EN blk	* 264.	* 1.2 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17. SE blk	* 354.	* 1.6 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
18. NW blk	* 172.	* 1.2 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
19. SW blk	* 8.	* 1.1 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20. NE blk	* 187.	* 1.8 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Forest 2003 NP9  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM)											
	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	* .0	.3	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0
2. NW	* .0	.8	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0
3. SW	* .0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0
4. NE	* .0	.4	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	* .0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	* .0	.2	.3	.0	.0	.0	.0	.0	.0	.0	.1	.0
7. WS mdbl	* .0	.1	.2	.0	.0	.0	.0	.0	.0	.0	.1	.0
8. EN mdbl	* .0	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	* .0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0
10. NW mdbl	* .0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	* .0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0
12. NE mdbl	* .0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
13. ES blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	.0
14. WN blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4
15. WS blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3
16. EN blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	.0
17. SE blk	* .0	.0	.0	.0	1.4	.0	.0	.0	.0	.0	.0	.0
18. NW blk	* .0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0
19. SW blk	* .0	.0	.0	.0	.9	.0	.0	.0	.0	.0	.0	.0
20. NE blk	* .0	.0	.0	.0	.0	1.7	.0	.0	.0	.0	.0	.0

R. 27th EBDX \* 150 -5 750 -5 \* AG 1339 1.5 .0 10.0  
 S. 27th WBAX \* 750 5 150 5 \* AG 1472 1.5 .0 10.0  
 T. 27th WBDX \* -150 5 -750 5 \* AG 1412 1.5 .0 10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Forest 2025 NP1  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 2

JOB: Forest 2025 NP1  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 100. CM ALT= 6. (M)  
 BRG= WORST CASE VD= .0 CM/S  
 CLAS= 7 (G) VS= .0 CM/S  
 MIXH= 1000. M AMB= .0 PPM  
 SIGTH= 10. DEGREES TEMP= 8.3 DEGREE (C)

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
		X	Y	Z
1. SE	*	14	-12	1.8
2. NW	*	-14	12	1.8
3. SW	*	14	-13	1.8
4. NE	*	-14	13	1.8
5. ES mdbl	*	150	-12	1.8
6. WN mdbl	*	-150	12	1.8
7. WS mdbl	*	-150	-13	1.8
8. EN mdbl	*	150	13	1.8
9. SE mdbl	*	14	-150	1.8
10. NW mdbl	*	-14	150	1.8
11. SW mdbl	*	14	-150	1.8
12. NE mdbl	*	-14	150	1.8
13. ES blk	*	600	-12	1.8
14. WN blk	*	-600	12	1.8
15. WS blk	*	-600	-13	1.8
16. EN blk	*	600	13	1.8
17. SE blk	*	14	-600	1.8
18. NW blk	*	-14	600	1.8
19. SW blk	*	14	-600	1.8
20. NE blk	*	-14	600	1.8

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M)				*	TYPE	VPH	EF (G/MI)	H (M)	W (M)
		X1	Y1	X2	Y2						
A. SanPab NBA	*	7	-150	7	0	* AG	769	1.5	.0	10.0	
B. SanPab NBD	*	7	0	7	150	* AG	987	1.5	.0	10.0	
C. SanPab NBL	*	0	-150	0	0	* AG	171	1.5	.0	10.0	
D. SanPab SBA	*	-7	150	-7	0	* AG	472	1.5	.0	10.0	
E. SanPab SBD	*	-7	0	-7	-150	* AG	577	1.5	.0	10.0	
F. SanPab SBL	*	0	150	0	0	* AG	151	1.5	.0	10.0	
G. 27th EBA	*	-150	-5	0	-5	* AG	1225	1.5	.0	10.0	
H. 27th EBD	*	0	-5	150	-5	* AG	1339	1.5	.0	10.0	
I. 27th EBL	*	-150	0	0	0	* AG	55	1.5	.0	10.0	
J. 27th WBA	*	150	5	0	5	* AG	1416	1.5	.0	10.0	
K. 27th WBD	*	0	5	-150	5	* AG	1412	1.5	.0	10.0	
L. 27th WBL	*	150	0	0	0	* AG	56	1.5	.0	10.0	
M. SanPab NBAX	*	7	-750	7	-150	* AG	940	1.5	.0	10.0	
N. SanPab NBDX	*	7	150	7	750	* AG	987	1.5	.0	10.0	
O. SanPab SBAX	*	-7	750	-7	150	* AG	623	1.5	.0	10.0	
P. SanPab SBDX	*	-7	-150	-7	-750	* AG	577	1.5	.0	10.0	
Q. 27th EBAX	*	-750	-5	-150	-5	* AG	1280	1.5	.0	10.0	

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 3

JOB: Forest 2025 NP1  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Forest 2025 NP1  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* BRG * (DEG)	* PRED * * CONC * (PPM)	CONC/LINK (PPM)							
			A	B	C	D	E	F	G	H
1. SE	* 277.	* .6 *	.0	.0	.0	.0	.0	.0	.2	.0
2. NW	* 97.	* .6 *	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	* 277.	* .5 *	.0	.0	.0	.0	.0	.0	.2	.0
4. NE	* 97.	* .5 *	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	* 277.	* .5 *	.0	.0	.0	.0	.0	.0	.0	.3
6. WN mdbl	* 97.	* .5 *	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	* 83.	* .5 *	.0	.0	.0	.0	.0	.0	.2	.0
8. EN mdbl	* 263.	* .5 *	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	* 353.	* .3 *	.2	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	* 173.	* .3 *	.0	.0	.0	.1	.0	.0	.0	.0
11. SW mdbl	* 353.	* .3 *	.2	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	* 173.	* .3 *	.0	.0	.0	.1	.0	.0	.0	.0
13. ES blk	* 277.	* .5 *	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	* 97.	* .5 *	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	* 83.	* .5 *	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	* 263.	* .5 *	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	* 354.	* .3 *	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	* 173.	* .3 *	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	* 354.	* .3 *	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	* 173.	* .3 *	.0	.0	.0	.0	.0	.0	.0	.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM)											
	* I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	* .0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	* .0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	* .0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	* .0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.1	.0
14. WN blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.3
15. WS blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.1
16. EN blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.0
17. SE blk	* .0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
18. NW blk	* .0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
19. SW blk	* .0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
20. NE blk	* .0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Forest 2025 NP2  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## I. SITE VARIABLES

U= .5 M/S                    Z0= 100. CM                    ALT= 6. (M)  
 BRG= WORST CASE            VD= .0 CM/S  
 CLAS= 7 (G)                VS= .0 CM/S  
 MIXH= 1000. M              AMB= .0 PPM  
 SIGTH= 10. DEGREES        TEMP= 8.3 DEGREE (C)

## II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M)				* TYPE	VPH	EF (G/MI)	H (M)	W (M)
	* X1	Y1	X2	Y2					
A. SanPab NBA	* 7	-150	7	0	* AG	602	1.2	.0	10.0
B. SanPab NBD	* 7	0	7	150	* AG	784	1.2	.0	10.0
C. SanPab NBL	* 0	-150	0	0	* AG	52	1.2	.0	10.0
D. SanPab SBA	* -9	150	-9	0	* AG	585	1.2	.0	10.0
E. SanPab SBD	* -9	0	-9	-150	* AG	407	1.2	.0	10.0
F. SanPab SBL	* 0	150	0	0	* AG	106	1.2	.0	10.0
G. 20th EBA	* -150	-2	0	-2	* AG	66	1.2	.0	10.0
H. 20th EBD	* 0	-2	150	-2	* AG	265	1.2	.0	10.0
I. 20th EBL	* -150	0	0	0	* AG	194	1.2	.0	10.0
J. 20th WBA	* 150	2	0	2	* AG	143	1.2	.0	10.0
K. 20th WBD	* 0	2	-150	2	* AG	312	1.2	.0	10.0
L. 20th WBL	* 150	0	0	0	* AG	20	1.2	.0	10.0
M. SanPab NBAX	* 7	-750	7	-150	* AG	654	1.2	.0	10.0
N. SanPab NBDX	* 7	150	7	750	* AG	784	1.2	.0	10.0
O. SanPab SBAX	* -9	750	-9	150	* AG	691	1.2	.0	10.0
P. SanPab SBDX	* -9	-150	-9	-750	* AG	407	1.2	.0	10.0
Q. 20th EBAX	* -750	-2	-150	-2	* AG	260	1.2	.0	10.0

R. 20th EBDX	* 150	-2	750	-2	* AG	265	1.2	.0	10.0
S. 20th WBAX	* 750	2	150	2	* AG	163	1.2	.0	10.0
T. 20th WBDX	* -150	2	-750	2	* AG	312	1.2	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 2

JOB: Forest 2025 NP2  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M)		
	* X	Y	Z
1. SE	* 14	-8	1.8
2. NW	* -17	8	1.8
3. SW	* -15	-8	1.8
4. NE	* 14	8	1.8
5. ES mdbl	* 150	-8	1.8
6. WN mdbl	* -150	8	1.8
7. WS mdbl	* -150	-8	1.8
8. EN mdbl	* 150	8	1.8
9. SE mdbl	* 14	-150	1.8
10. NW mdbl	* -17	150	1.8
11. SW mdbl	* -15	-150	1.8
12. NE mdbl	* 14	150	1.8
13. ES blk	* 600	-8	1.8
14. WN blk	* -600	8	1.8
15. WS blk	* -600	-8	1.8
16. EN blk	* 600	8	1.8
17. SE blk	* 14	-600	1.8
18. NW blk	* -17	600	1.8
19. SW blk	* -15	-600	1.8
20. NE blk	* 14	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 3

JOB: Forest 2025 NP2  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Forest 2025 NP2  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* BRG * (DEG)	* PRED * CONC * (PPM)	CONC/LINK (PPM)								
			A	B	C	D	E	F	G	H	
1. SE	* 353. *	* .2 *	.0	.1	.0	.0	.0	.0	.0	.0	.0
2. NW	* 172. *	* .2 *	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	* 7. *	* .2 *	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	* 353. *	* .2 *	.0	.1	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	* 276. *	* .1 *	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	* 96. *	* .1 *	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	* 84. *	* .1 *	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	* 265. *	* .1 *	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	* 354. *	* .2 *	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	* 172. *	* .2 *	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	* 6. *	* .2 *	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	* 188. *	* .2 *	.0	.1	.0	.0	.0	.0	.0	.0	.0
13. ES blk	* 275. *	* .1 *	.0	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	* 96. *	* .1 *	.0	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	* 84. *	* .1 *	.0	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	* 265. *	* .1 *	.0	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	* 354. *	* .2 *	.0	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	* 173. *	* .2 *	.0	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	* 7. *	* .2 *	.0	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	* 187. *	* .2 *	.0	.0	.0	.0	.0	.0	.0	.0	.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM)											
	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	* .0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
18. NW blk	* .0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
19. SW blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	* .0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0



R. 20th EBDX \* 150 -2 750 -2 \* AG 478 1.5 .0 10.0  
 S. 20th WBAX \* 750 2 150 2 \* AG 255 1.5 .0 10.0  
 T. 20th WBDX \* -150 2 -750 2 \* AG 193 1.5 .0 10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Forest 2025 NP3  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 100. CM ALT= 6. (M)  
 BRG= WORST CASE VD= .0 CM/S  
 CLAS= 7 (G) VS= .0 CM/S  
 MIXH= 1000. M AMB= .0 PPM  
 SIGTH= 10. DEGREES TEMP= 8.3 DEGREE (C)

II. LINK VARIABLES

LINK DESCRIPTION	* X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Telegra NBA	* 5	-150	5	0	* AG	1155	1.5	.0	10.0
B. Telegra NBD	* 5	0	5	150	* AG	1250	1.5	.0	10.0
C. Telegra NBL	* 0	-150	0	0	* AG	52	1.5	.0	10.0
D. Telegra SBA	* -7	150	-7	0	* AG	548	1.5	.0	10.0
E. Telegra SBD	* -7	0	-7	-150	* AG	589	1.5	.0	10.0
F. Telegra SBL	* 0	150	0	0	* AG	118	1.5	.0	10.0
G. 20th EBA	* -150	-2	0	-2	* AG	278	1.5	.0	10.0
H. 20th EBD	* 0	-2	150	-2	* AG	478	1.5	.0	10.0
I. 20th EBL	* -150	0	0	0	* AG	104	1.5	.0	10.0
J. 20th WBA	* 150	2	0	2	* AG	224	1.5	.0	10.0
K. 20th WBD	* 0	2	-150	2	* AG	193	1.5	.0	10.0
L. 20th WBL	* 150	0	0	0	* AG	31	1.5	.0	10.0
M. Telegra NBAX	* 5	-750	5	-150	* AG	1207	1.5	.0	10.0
N. Telegra NBDX	* 5	150	5	750	* AG	1250	1.5	.0	10.0
O. Telegra SBAX	* -7	750	-7	150	* AG	666	1.5	.0	10.0
P. Telegra SBDX	* -7	-150	-7	-750	* AG	589	1.5	.0	10.0
Q. 20th EBAX	* -750	-2	-150	-2	* AG	382	1.5	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 2

JOB: Forest 2025 NP3  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	* X	Y	Z
1. SE	* 13	-8	1.8
2. NW	* -14	8	1.8
3. SW	* -14	-8	1.8
4. NE	* 12	8	1.8
5. ES mdbl	* 150	-8	1.8
6. WN mdbl	* -150	8	1.8
7. WS mdbl	* -150	-8	1.8
8. EN mdbl	* 150	8	1.8
9. SE mdbl	* 13	-150	1.8
10. NW mdbl	* -14	150	1.8
11. SW mdbl	* -14	-150	1.8
12. NE mdbl	* 12	150	1.8
13. ES blk	* 600	-8	1.8
14. WN blk	* -600	8	1.8
15. WS blk	* -600	-8	1.8
16. EN blk	* 600	8	1.8
17. SE blk	* 13	-600	1.8
18. NW blk	* -14	600	1.8
19. SW blk	* -14	-600	1.8
20. NE blk	* 12	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 3

JOB: Forest 2025 NP3  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* BRG (DEG)	* PRED * CONC (PPM)	CONC/LINK (PPM)									
			A	B	C	D	E	F	G	H		
1. SE	* 353.	* .4	* .0	.2	.0	.0	.0	.0	.0	.0	.0	
2. NW	* 173.	* .3	* .0	.0	.0	.0	.1	.0	.0	.0	.0	
3. SW	* 7.	* .3	* .0	.0	.0	.1	.0	.0	.0	.0	.0	
4. NE	* 187.	* .4	* .2	.0	.0	.0	.0	.0	.0	.0	.0	
5. ES mdbl	* 276.	* .2	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
6. WN mdbl	* 95.	* .2	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
7. WS mdbl	* 85.	* .2	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
8. EN mdbl	* 264.	* .2	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
9. SE mdbl	* 354.	* .3	* .2	.0	.0	.0	.0	.0	.0	.0	.0	
10. NW mdbl	* 173.	* .3	* .0	.0	.0	.1	.0	.0	.0	.0	.0	
11. SW mdbl	* 7.	* .3	* .0	.0	.0	.0	.1	.0	.0	.0	.0	
12. NE mdbl	* 187.	* .4	* .0	.2	.0	.0	.0	.0	.0	.0	.0	
13. ES blk	* 276.	* .2	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
14. WN blk	* 96.	* .2	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
15. WS blk	* 84.	* .2	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
16. EN blk	* 264.	* .2	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
17. SE blk	* 354.	* .3	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
18. NW blk	* 173.	* .3	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
19. SW blk	* 7.	* .3	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
20. NE blk	* 187.	* .4	* .0	.0	.0	.0	.0	.0	.0	.0	.0	

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Forest 2025 NP3  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM)											
	* I	* J	* K	* L	* M	* N	* O	* P	* Q	* R	* S	* T
1. SE	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0
13. ES blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0
14. WN blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	* .0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
18. NW blk	* .0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0
19. SW blk	* .0	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0
20. NE blk	* .0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0

R. William EBDX \* 150 0 750 0 \* AG 0 1.5 .0 10.0  
 S. William WBAX \* 750 0 150 0 \* AG 0 1.5 .0 10.0  
 T. William WBDX \* -150 0 -750 0 \* AG 78 1.5 .0 10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Forest 2025 NP4  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S Z0= 100. CM ALT= 6. (M)  
 BRG= WORST CASE VD= .0 CM/S  
 CLAS= 7 (G) VS= .0 CM/S  
 MIXH= 1000. M AMB= .0 PPM  
 SIGTH= 10. DEGREES TEMP= 8.3 DEGREE (C)

II. LINK VARIABLES

LINK	* LINK	COORDINATES (M)				* TYPE	VPH	EF (G/MI)	H (M)	W (M)
DESCRIPTION	* X1	Y1	X2	Y2	* TYPE	VPH	(G/MI)	(M)	(M)	
A. Telegra NBA	*	4	-150	4	0	* AG	1280	1.5	.0	10.0
B. Telegra NBD	*	4	0	4	150	* AG	1280	1.5	.0	10.0
C. Telegra NBL	*	0	-150	0	0	* AG	41	1.5	.0	10.0
D. Telegra SBA	*	-4	150	-4	0	* AG	565	1.5	.0	10.0
E. Telegra SBD	*	-4	0	-4	-150	* AG	528	1.5	.0	10.0
F. Telegra SBL	*	0	150	0	0	* AG	0	1.5	.0	10.0
G. Williams EBA	*	-150	0	0	0	* AG	0	1.5	.0	10.0
H. William EBD	*	0	0	150	0	* AG	0	1.5	.0	10.0
I. William EBL	*	-150	0	0	0	* AG	0	1.5	.0	10.0
J. William WBA	*	150	0	0	0	* AG	0	1.5	.0	10.0
K. William WBD	*	0	0	-150	0	* AG	78	1.5	.0	10.0
L. William WBL	*	150	0	0	0	* AG	0	1.5	.0	10.0
M. Telegra NBAX	*	4	-750	4	-150	* AG	1321	1.5	.0	10.0
N. Telegra NBDX	*	4	150	4	750	* AG	1280	1.5	.0	10.0
O. Telegra SBAX	*	-4	750	-4	150	* AG	565	1.5	.0	10.0
P. Telegra SBDX	*	-4	-150	-4	-750	* AG	528	1.5	.0	10.0
Q. William EBAX	*	-750	0	-150	0	* AG	0	1.5	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 2

JOB: Forest 2025 NP4  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	* COORDINATES (M)	X	Y	Z
1. SE	*	10	-7	1.8
2. NW	*	-10	7	1.8
3. SW	*	-10	-7	1.8
4. NE	*	10	7	1.8
5. ES mdbl	*	150	-7	1.8
6. WN mdbl	*	-150	7	1.8
7. WS mdbl	*	-150	-7	1.8
8. EN mdbl	*	150	7	1.8
9. SE mdbl	*	10	-150	1.8
10. NW mdbl	*	-10	150	1.8
11. SW mdbl	*	-10	-150	1.8
12. NE mdbl	*	10	150	1.8
13. ES blk	*	600	-7	1.8
14. WN blk	*	-600	7	1.8
15. WS blk	*	-600	-7	1.8
16. EN blk	*	600	7	1.8
17. SE blk	*	10	-600	1.8
18. NW blk	*	-10	600	1.8
19. SW blk	*	-10	-600	1.8
20. NE blk	*	10	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 3

JOB: Forest 2025 NP4  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Forest 2025 NP4  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* BRG * (DEG)	* PRED * * CONC * (PPM)	CONC/LINK (PPM)							
			A	B	C	D	E	F	G	H
1. SE	* 187. *	* .4 *	.2	.0	.0	.0	.0	.0	.0	.0
2. NW	* 173. *	* .3 *	.1	.0	.0	.0	.1	.0	.0	.0
3. SW	* 7. *	* .3 *	.0	.1	.0	.1	.0	.0	.0	.0
4. NE	* 353. *	* .4 *	.0	.2	.0	.0	.0	.0	.0	.0
5. ES mdbl	* 339. *	* .0 *	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	* 157. *	* .0 *	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	* 23. *	* .0 *	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	* 201. *	* .0 *	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	* 353. *	* .4 *	.2	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	* 173. *	* .3 *	.0	.1	.0	.1	.0	.0	.0	.0
11. SW mdbl	* 7. *	* .3 *	.1	.0	.0	.1	.0	.0	.0	.0
12. NE mdbl	* 187. *	* .4 *	.0	.2	.0	.0	.0	.0	.0	.0
13. ES blk	* 309. *	* .0 *	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	* 95. *	* .0 *	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	* 85. *	* .0 *	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	* 231. *	* .0 *	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	* 354. *	* .4 *	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	* 174. *	* .3 *	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	* 6. *	* .3 *	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	* 186. *	* .4 *	.0	.0	.0	.0	.0	.0	.0	.0

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM)											
	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
2. NW	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
3. SW	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
4. NE	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
5. ES mdbl	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
6. WN mdbl	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
7. WS mdbl	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
8. EN mdbl	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
9. SE mdbl	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
10. NW mdbl	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
11. SW mdbl	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
12. NE mdbl	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
13. ES blk	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
14. WN blk	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
15. WS blk	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
16. EN blk	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
17. SE blk	* .0	* .0	* .0	* .0	* .3	* .0	* .0	* .0	* .0	* .0	* .0	* .0
18. NW blk	* .0	* .0	* .0	* .0	* .0	* .1	* .1	* .0	* .0	* .0	* .0	* .0
19. SW blk	* .0	* .0	* .0	* .0	* .2	* .0	* .0	* .1	* .0	* .0	* .0	* .0
20. NE blk	* .0	* .0	* .0	* .0	* .0	* .3	* .0	* .0	* .0	* .0	* .0	* .0

R. 19th EBDX	*	150	0	750	0	* AG	0	1.5	.0	10.0
S. 19th WBAX	*	750	2	150	2	* AG	1671	1.5	.0	10.0
T. 19th WBDX	*	-150	2	-750	2	* AG	1435	1.5	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Forest 2025 NP5  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	6. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	8.3 DEGREE (C)		

## II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M)				*	TYPE	VPH	EF (G/MI)	H (M)	W (M)
		X1	Y1	X2	Y2						
A. Telegra NBA	*	4	-150	4	0	* AG	376	1.5	.0	10.0	
B. Telegra NBD	*	4	0	4	150	* AG	666	1.5	.0	10.0	
C. Telegra NBL	*	0	-150	0	0	* AG	60	1.5	.0	10.0	
D. Telegra SBA	*	-5	150	-5	0	* AG	559	1.5	.0	10.0	
E. Telegra SBD	*	-5	0	-5	-150	* AG	565	1.5	.0	10.0	
F. Telegra SBL	*	0	150	0	0	* AG	0	1.5	.0	10.0	
G. 19th EBA	*	-150	0	0	0	* AG	0	1.5	.0	10.0	
H. 19th EBD	*	0	0	150	0	* AG	0	1.5	.0	10.0	
I. 19th EBL	*	-150	0	0	0	* AG	0	1.5	.0	10.0	
J. 19th WBA	*	150	2	0	2	* AG	1604	1.5	.0	10.0	
K. 19th WBD	*	0	2	-150	2	* AG	1435	1.5	.0	10.0	
L. 19th WBL	*	150	0	0	0	* AG	67	1.5	.0	10.0	
M. Telegra NBAX	*	4	-750	4	-150	* AG	436	1.5	.0	10.0	
N. Telegra NBDX	*	4	150	4	750	* AG	666	1.5	.0	10.0	
O. Telegra SBAX	*	-5	750	-5	150	* AG	559	1.5	.0	10.0	
P. Telegra SBDX	*	-5	-150	-5	-750	* AG	565	1.5	.0	10.0	
Q. 19th EBAX	*	-750	0	-150	0	* AG	0	1.5	.0	10.0	

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 2

JOB: Forest 2025 NP5  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
		X	Y	Z
1. SE	*	10	-7	1.8
2. NW	*	-14	8	1.8
3. SW	*	-13	-7	1.8
4. NE	*	10	8	1.8
5. ES mdbl	*	150	-7	1.8
6. WN mdbl	*	-150	8	1.8
7. WS mdbl	*	-150	-7	1.8
8. EN mdbl	*	150	8	1.8
9. SE mdbl	*	10	-150	1.8
10. NW mdbl	*	-14	150	1.8
11. SW mdbl	*	-13	-150	1.8
12. NE mdbl	*	10	150	1.8
13. ES blk	*	600	-7	1.8
14. WN blk	*	-600	8	1.8
15. WS blk	*	-600	-7	1.8
16. EN blk	*	600	8	1.8
17. SE blk	*	10	-600	1.8
18. NW blk	*	-14	600	1.8
19. SW blk	*	-13	-600	1.8
20. NE blk	*	10	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 3

JOB: Forest 2025 NP5  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* BRG * (DEG)	* PRED * CONC * (PPM)	CONC/LINK (PPM)									
			A	B	C	D	E	F	G	H		
1. SE	* 353. *	* .4 *	.0	.1	.0	.0	.0	.0	.0	.0	.0	
2. NW	* 97. *	* .5 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
3. SW	* 83. *	* .4 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
4. NE	* 263. *	* .4 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5. ES mdbl	* 278. *	* .3 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
6. WN mdbl	* 96. *	* .4 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7. WS mdbl	* 84. *	* .3 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8. EN mdbl	* 263. *	* .4 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
9. SE mdbl	* 354. *	* .2 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10. NW mdbl	* 173. *	* .2 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
11. SW mdbl	* 6. *	* .2 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12. NE mdbl	* 187. *	* .3 *	.0	.1	.0	.0	.0	.0	.0	.0	.0	
13. ES blk	* 277. *	* .3 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
14. WN blk	* 96. *	* .4 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
15. WS blk	* 84. *	* .3 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
16. EN blk	* 263. *	* .4 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17. SE blk	* 354. *	* .2 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
18. NW blk	* 173. *	* .2 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
19. SW blk	* 6. *	* .2 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20. NE blk	* 186. *	* .3 *	.0	.0	.0	.0	.0	.0	.0	.0	.0	

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Forest 2025 NP5  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM)											
	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	* .0	* .1	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
2. NW	* .0	* .3	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
3. SW	* .0	* .2	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
4. NE	* .0	* .0	* .2	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
5. ES mdbl	* .0	* .2	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
6. WN mdbl	* .0	* .0	* .3	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
7. WS mdbl	* .0	* .0	* .2	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
8. EN mdbl	* .0	* .3	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
9. SE mdbl	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
10. NW mdbl	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
11. SW mdbl	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
12. NE mdbl	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
13. ES blk	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0
14. WN blk	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .3
15. WS blk	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .2
16. EN blk	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .4
17. SE blk	* .0	* .0	* .0	* .0	* .1	* .0	* .0	* .0	* .0	* .0	* .0	* .0
18. NW blk	* .0	* .0	* .0	* .0	* .0	* .0	* .1	* .0	* .0	* .0	* .0	* .0
19. SW blk	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .1	* .0	* .0	* .0	* .0
20. NE blk	* .0	* .0	* .0	* .0	* .0	* .2	* .0	* .0	* .0	* .0	* .0	* .0

R. Grand EBDX \* 150 -7 750 -7 \* AG 0 1.3 .0 10.0  
 S. Grand WBAX \* 750 2 150 2 \* AG 1671 1.3 .0 10.0  
 T. Grand WBDX \* -150 2 -750 2 \* AG 1435 1.3 .0 10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 1

JOB: Forest 2025 NP6  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## I. SITE VARIABLES

U= .5 M/S Z0= 100. CM ALT= 6. (M)  
 BRG= WORST CASE VD= .0 CM/S  
 CLAS= 7 (G) VS= .0 CM/S  
 MIXH= 1000. M AMB= .0 PPM  
 SIGTH= 10. DEGREES TEMP= 8.3 DEGREE (C)

## II. LINK VARIABLES

LINK DESCRIPTION	* X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Broad NBA	* 9	-150	9	0	* AG	1046	1.3	.0	10.0
E. Broad NED	* 9	0	9	150	* AG	1086	1.3	.0	10.0
C. Broad NEL	* 0	-150	0	0	* AG	337	1.3	.0	10.0
D. Broad SBA	* -7	150	-7	0	* AG	664	1.3	.0	10.0
E. Broad SBD	* -7	0	-7	-150	* AG	766	1.3	.0	10.0
F. Broad SEL	* 0	150	0	0	* AG	61	1.3	.0	10.0
G. Grand EBA	* -150	-7	0	-7	* AG	1087	1.3	.0	10.0
H. Grand EBD	* 0	-7	150	-7	* AG	1233	1.3	.0	10.0
I. Grand EBL	* -150	0	0	0	* AG	220	1.3	.0	10.0
J. Grand WBA	* 150	2	0	2	* AG	521	1.3	.0	10.0
K. Grand WBD	* 0	2	-150	2	* AG	944	1.3	.0	10.0
L. Grand WBL	* 150	0	0	0	* AG	113	1.3	.0	10.0
M. Broad NBAX	* 9	-750	9	-150	* AG	436	1.3	.0	10.0
N. Broad NEDX	* 9	150	9	750	* AG	666	1.3	.0	10.0
O. Broad SBAX	* -7	750	-7	150	* AG	559	1.3	.0	10.0
P. Broad SBDX	* -7	-150	-7	-750	* AG	565	1.3	.0	10.0
Q. Grand EBAX	* -750	-7	-150	-7	* AG	0	1.3	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 2

JOB: Forest 2025 NP6  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## III. RECEPTOR LOCATIONS

RECEPTOR	* X	Y	Z
1. SE	* 17	-14	1.8
2. NW	* -14	8	1.8
3. SW	* -14	-14	1.8
4. NE	* 15	8	1.8
5. ES mdbl	* 150	-14	1.8
6. WN mdbl	* -150	8	1.8
7. WS mdbl	* -150	-14	1.8
8. EN mdbl	* 150	8	1.8
9. SE mdbl	* 17	-150	1.8
10. NW mdbl	* -14	150	1.8
11. SW mdbl	* -14	-150	1.8
12. NE mdbl	* 15	150	1.8
13. ES blk	* 600	-14	1.8
14. WN blk	* -600	8	1.8
15. WS blk	* -600	-14	1.8
16. EN blk	* 600	8	1.8
17. SE blk	* 17	-600	1.8
18. NW blk	* -14	600	1.8
19. SW blk	* -14	-600	1.8
20. NE blk	* 15	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 3

JOB: Forest 2025 NP6  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* BRG * (DEG)	* PRED * CONC * (PPM)	CONC/LINK (PPM)									
			A	B	C	D	E	F	G	H		
1. SE	* 279. *	.5 *	.0	.0	.0	.0	.0	.0	.1	.0		
2. NW	* 171. *	.4 *	.0	.0	.0	.0	.1	.0	.0	.0		
3. SW	* 82. *	.4 *	.0	.0	.0	.0	.0	.0	.0	.2		
4. NE	* 262. *	.4 *	.0	.0	.0	.0	.0	.0	.0	.0		
5. ES mdbl	* 277. *	.4 *	.0	.0	.0	.0	.0	.0	.0	.2		
6. WN mdbl	* 98. *	.4 *	.0	.0	.0	.0	.0	.0	.0	.0		
7. WS mdbl	* 83. *	.4 *	.0	.0	.0	.0	.0	.0	.2	.0		
8. EN mdbl	* 97. *	.3 *	.0	.0	.0	.0	.0	.0	.0	.0		
9. SE mdbl	* 351. *	.3 *	.1	.0	.0	.0	.0	.0	.0	.0		
10. NW mdbl	* 173. *	.3 *	.0	.0	.0	.1	.0	.0	.0	.0		
11. SW mdbl	* 8. *	.3 *	.0	.0	.0	.0	.1	.0	.0	.0		
12. NE mdbl	* 188. *	.3 *	.0	.2	.0	.0	.0	.0	.0	.0		
13. ES blk	* 277. *	.2 *	.0	.0	.0	.0	.0	.0	.0	.0		
14. WN blk	* 96. *	.3 *	.0	.0	.0	.0	.0	.0	.0	.0		
15. WS blk	* 83. *	.2 *	.0	.0	.0	.0	.0	.0	.0	.0		
16. EN blk	* 264. *	.4 *	.0	.0	.0	.0	.0	.0	.0	.0		
17. SE blk	* 354. *	.2 *	.0	.0	.0	.0	.0	.0	.0	.0		
18. NW blk	* 174. *	.2 *	.0	.0	.0	.0	.0	.0	.0	.0		
19. SW blk	* 6. *	.2 *	.0	.0	.0	.0	.0	.0	.0	.0		
20. NE blk	* 186. *	.2 *	.0	.0	.0	.0	.0	.0	.0	.0		

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Forest 2025 NP6  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM)											
	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	* .0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	* .0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0
9. SE mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0
14. WN blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3
15. WS blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
16. EN blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0
17. SE blk	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	* .0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
19. SW blk	* .0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0
20. NE blk	* .0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0



R. Grand EBDX	*	150	-7	750	-7	*	AG	1233	1.5	.0	10.0
S. Grand WBAX	*	750	7	150	7	*	AG	634	1.5	.0	10.0
T. Grand WBDX	*	-150	7	-750	7	*	AG	944	1.5	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 1

JOB: Forest 2025 NP7  
RUN: Hour 1 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

## I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	6. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	8.3 DEGREE (C)		

## II. LINK VARIABLES

LINK DESCRIPTION	* X1	Y1	X2	Y2	* TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. Front NBA	* 7	-150	7	0	* AG	329	1.5	.0	10.0
B. Front NBD	* 7	0	7	150	* AG	1415	1.5	.0	10.0
C. Front NBL	* 0	-150	0	0	* AG	28	1.5	.0	10.0
D. Front SBA	* -5	150	-5	0	* AG	125	1.5	.0	10.0
E. Front SBD	* -5	0	-5	-150	* AG	382	1.5	.0	10.0
F. Front SBL	* 0	150	0	0	* AG	157	1.5	.0	10.0
G. Grand EBA	* -150	-7	0	-7	* AG	825	1.5	.0	10.0
H. Grand EBD	* 0	-7	150	-7	* AG	1018	1.5	.0	10.0
I. Grand EBL	* -150	0	0	0	* AG	850	1.5	.0	10.0
J. Grand WBA	* 150	7	0	7	* AG	1660	1.5	.0	10.0
K. Grand WBD	* 0	7	-150	7	* AG	1289	1.5	.0	10.0
L. Grand WBL	* 150	0	0	0	* AG	130	1.5	.0	10.0
M. Front NBAX	* 7	-750	7	-150	* AG	1383	1.5	.0	10.0
N. Front NBDX	* 7	150	7	750	* AG	1086	1.5	.0	10.0
O. Front SBAX	* -5	750	-5	150	* AG	705	1.5	.0	10.0
P. Front SBDX	* -5	-150	-5	-750	* AG	766	1.5	.0	10.0
Q. Grand EBAX	* -750	-7	-150	-7	* AG	1307	1.5	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Forest 2025 NP7  
RUN: Hour 1 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

## III. RECEPTOR LOCATIONS

RECEPTOR	* X	Y	Z
1. SE	* 14	-14	1.8
2. NW	* -12	14	1.8
3. SW	* -12	-14	1.8
4. NE	* 14	14	1.8
5. ES mdbl	* 150	-14	1.8
6. WN mdbl	* -150	14	1.8
7. WS mdbl	* -150	-14	1.8
8. EN mdbl	* 150	14	1.8
9. SE mdbl	* 14	-150	1.8
10. NW mdbl	* -12	150	1.8
11. SW mdbl	* -12	-150	1.8
12. NE mdbl	* 14	150	1.8
13. ES blk	* 600	-14	1.8
14. WN blk	* -600	14	1.8
15. WS blk	* -600	-14	1.8
16. EN blk	* 600	14	1.8
17. SE blk	* 14	-600	1.8
18. NW blk	* -12	600	1.8
19. SW blk	* -12	-600	1.8
20. NE blk	* 14	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 3

JOB: Forest 2025 NP7  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* BRG * (DEG)	* PRED * CONC	CONC/LINK (PPM)							
			A	B	C	D	E	F	G	H
1. SE	354.	.5	.0	.2	.0	.0	.0	.0	.0	.0
2. NW	98.	.6	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	82.	.4	.0	.0	.0	.0	.0	.0	.0	.2
4. NE	261.	.6	.0	.1	.0	.0	.0	.0	.0	.0
5. ES mdbl	278.	.4	.0	.0	.0	.0	.0	.0	.0	.2
6. WN mdbl	98.	.5	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	82.	.5	.0	.0	.0	.0	.0	.0	.2	.0
8. EN mdbl	263.	.5	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	187.	.4	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	7.	.3	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	173.	.3	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	187.	.4	.0	.3	.0	.0	.0	.0	.0	.0
13. ES blk	277.	.4	.0	.0	.0	.0	.0	.0	.0	.0
14. WN blk	97.	.4	.0	.0	.0	.0	.0	.0	.0	.0
15. WS blk	83.	.4	.0	.0	.0	.0	.0	.0	.0	.0
16. EN blk	263.	.3	.0	.0	.0	.0	.0	.0	.0	.0
17. SE blk	353.	.4	.0	.0	.0	.0	.0	.0	.0	.0
18. NW blk	173.	.3	.0	.0	.0	.0	.0	.0	.0	.0
19. SW blk	7.	.4	.0	.0	.0	.0	.0	.0	.0	.0
20. NE blk	187.	.4	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Forest 2025 NP7  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM)											
	I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0
11. SW mdbl	.0	.0	.0	.0	.1	.0	.0	.2	.0	.0	.0	.0
12. NE mdbl	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0
14. WN blk	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.2
15. WS blk	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0
16. EN blk	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.2	.0
17. SE blk	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
18. NW blk	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0
19. SW blk	.0	.0	.0	.0	.1	.0	.0	.2	.0	.0	.0	.0
20. NE blk	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0

R. Grand EBDX	*	150	-11	750	-11	*	AG	1530	1.3	.0	10.0
S. Grand WBAX	*	750	11	150	11	*	AG	1187	1.3	.0	10.0
T. Grand WBDX	*	-150	11	-750	11	*	AG	790	1.3	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 1

JOB: Forest 2010 NP8  
RUN: Hour 1 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

## I. SITE VARIABLES

U=	.5 M/S	ZO=	100. CM	ALT=	6. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	10. DEGREES	TEMP=	8.3 DEGREE (C)		

## II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M)				*	TYPE	VPH	EF (G/MI)	H (M)	W (M)
		X1	Y1	X2	Y2						
A. Harris NBA	*	9	-150	9	0	*	AG	2686	1.3	.0	10.0
B. Harris NBD	*	9	0	9	150	*	AG	2195	1.3	.0	10.0
C. Harris NBL	*	0	-150	0	0	*	AG	9	1.3	.0	10.0
D. Harris SBA	*	-4	150	-4	0	*	AG	1182	1.3	.0	10.0
E. Harris SBD	*	-4	0	-4	-150	*	AG	1681	1.3	.0	10.0
F. Harris SBL	*	0	150	0	0	*	AG	0	1.3	.0	10.0
G. Grand EBA	*	-150	-11	0	-11	*	AG	916	1.3	.0	10.0
H. Grand EBD	*	0	-11	150	-11	*	AG	1530	1.3	.0	10.0
I. Grand EBL	*	-150	0	0	0	*	AG	216	1.3	.0	10.0
J. Grand WBA	*	150	11	0	11	*	AG	789	1.3	.0	10.0
K. Grand WBD	*	0	11	-150	11	*	AG	790	1.3	.0	10.0
L. Grand WBL	*	150	0	0	0	*	AG	398	1.3	.0	10.0
M. Harris NBAX	*	9	-750	9	-150	*	AG	2695	1.3	.0	10.0
N. Harris NBDX	*	9	150	9	750	*	AG	2195	1.3	.0	10.0
O. Harris SBAX	*	-4	750	-4	150	*	AG	1182	1.3	.0	10.0
P. Harris SBDX	*	-4	-150	-4	-750	*	AG	1681	1.3	.0	10.0
Q. Grand EBAX	*	-750	-11	-150	-11	*	AG	1132	1.3	.0	10.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
JUNE 1989 VERSION  
PAGE 2

JOB: Forest 2010 NP8  
RUN: Hour 1 (WORST CASE ANGLE)  
POLLUTANT: Carbon Monoxide

## III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
		X	Y	Z
1. SE	*	17	-17	1.8
2. NW	*	-11	17	1.8
3. SW	*	-10	-17	1.8
4. NE	*	15	17	1.8
5. ES mdbl	*	150	-17	1.8
6. WN mdbl	*	-150	17	1.8
7. WS mdbl	*	-150	-17	1.8
8. EN mdbl	*	150	17	1.8
9. SE mdbl	*	17	-150	1.8
10. NW mdbl	*	-11	150	1.8
11. SW mdbl	*	-10	-150	1.8
12. NE mdbl	*	15	150	1.8
13. ES blk	*	600	-17	1.8
14. WN blk	*	-600	17	1.8
15. WS blk	*	-600	-17	1.8
16. EN blk	*	600	17	1.8
17. SE blk	*	17	-600	1.8
18. NW blk	*	-11	600	1.8
19. SW blk	*	-10	-600	1.8
20. NE blk	*	15	600	1.8

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 3

JOB: Forest 2010 NP8  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	* BRG (DEG)	* PRED * CONC (PPM)	CONC/LINK (PPM)									
			* A	B	C	D	E	F	G	H		
1. SE	* 352.	* .6	* .0	.2	.0	.0	.0	.0	.0	.0	.1	
2. NW	* 172.	* .6	* .1	.0	.0	.0	.0	.2	.0	.0	.0	
3. SW	* 82.	* .6	* .1	.0	.0	.0	.0	.1	.0	.0	.2	
4. NE	* 188.	* .7	* .3	.0	.0	.0	.0	.0	.0	.0	.0	
5. ES mdbl	* 278.	* .4	* .0	.0	.0	.0	.0	.0	.0	.0	.3	
6. WN mdbl	* 97.	* .4	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
7. WS mdbl	* 84.	* .4	* .0	.0	.0	.0	.0	.0	.2	.0	.0	
8. EN mdbl	* 261.	* .3	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
9. SE mdbl	* 352.	* .5	* .3	.0	.0	.0	.0	.0	.0	.0	.0	
10. NW mdbl	* 173.	* .4	* .0	.0	.0	.2	.0	.0	.0	.0	.0	
11. SW mdbl	* 8.	* .5	* .1	.0	.0	.0	.3	.0	.0	.0	.0	
12. NE mdbl	* 187.	* .6	* .0	.3	.0	.0	.0	.0	.0	.0	.0	
13. ES blk	* 277.	* .4	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
14. WN blk	* 97.	* .3	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
15. WS blk	* 83.	* .3	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
16. EN blk	* 262.	* .4	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
17. SE blk	* 352.	* .5	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
18. NW blk	* 173.	* .4	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
19. SW blk	* 7.	* .5	* .0	.0	.0	.0	.0	.0	.0	.0	.0	
20. NE blk	* 187.	* .5	* .0	.0	.0	.0	.0	.0	.0	.0	.0	

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL  
 JUNE 1989 VERSION  
 PAGE 4

JOB: Forest 2010 NP8  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

## IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM)											
		I	J	K	L	M	N	O	P	Q	R	S	T
1. SE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. NW	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NE	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. ES mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. WN mdbl	*	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. WS mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. EN mdbl	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
9. SE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10. NW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
11. SW mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12. NE mdbl	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13. ES blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0
14. WN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
15. WS blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0
16. EN blk	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
17. SE blk	*	.0	.0	.0	.0	.3	.0	.0	.1	.0	.0	.0	.0
18. NW blk	*	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0
19. SW blk	*	.0	.0	.0	.0	.2	.0	.0	.3	.0	.0	.0	.0
20. NE blk	*	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0

**APPENDIX G  
NOISE DATA**

TABLE 2025-1  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: MARTIN LUTHER KING JR. WY. NORTH OF 18TH ST.  
NOTES: 2025 CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 5460      SPEED (MPH): 45      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.75

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	109.4	231.3

TABLE 2025-2  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: MARTIN LUTHER KING JR. WY. BETWEEN 18TH ST. AND 17TH ST.  
NOTES: 2025 CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 5395      SPEED (MPH): 45      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.70

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	108.6	229.4

TABLE 2025-3  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 9/10/2003  
ROADWAY SEGMENT: SAN PABLO AVE. BETWEEN GRAND AVE. AND 20TH ST.  
NOTES: 2025 CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 14960    SPEED (MPH): 45    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.13

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	100.0	210.4	450.9

TABLE 2025-4  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: SAN PABLO AVE. NORTH OF 20TH ST.  
NOTES: 2025 CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 14750    SPEED (MPH): 45    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.07

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	99.1	208.5	446.7

TABLE 2025-5  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: SAN PABLO AVE. BETWEEN 20TH ST. AND WILLIAMS ST.  
NOTES: 2025 CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 7835      SPEED (MPH): 45      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.32

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	67.5	137.9	293.5

TABLE 2025-6  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: SAN PABLO AVE. BETWEEN WILLIAMS ST. AND 19TH ST.  
NOTES: 2025 CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 9150      SPEED (MPH): 45      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.99

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	73.9	152.5	325.3



TABLE 2025-7  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: SAN PABLO AVE. BETWEEN 19TH ST. AND 18TH ST.  
NOTES: 2025 CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 7230      SPEED (MPH): 45      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.97

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	64.4	131.0	278.3

TABLE 2025-8  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: SAN PABLO AVE. BETWEEN 18TH ST. AND 17TH ST.  
NOTES: 2025 CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 7555      SPEED (MPH): 45      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.16

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	66.1	134.7	286.6

TABLE 2025-9  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: TELEGRAPH AVE. BETWEEN GRAND AVE. AND 20TH ST.  
NOTES: 2025 CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 21125    SPEED (MPH): 45    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.63

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
61.6	124.5	264.1	567.1

TABLE 2025-10  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: TELEGRAPH AVE. BETWEEN 20TH ST. AND WILLIAMS ST.  
NOTES: 2025 CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 18205    SPEED (MPH): 45    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.98

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
56.7	113.2	239.4	513.7



TABLE 2025-13  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: TELEGRAPH AVE. BETWEEN 18TH ST. AND 17TH ST.  
NOTES: 2025 CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 11445    SPEED (MPH): 45    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.97

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	84.7	176.5	377.4

TABLE 2025-14  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: BROADWAY SOUTH OF GRAND AVE.  
NOTES: 2025 CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 21490    SPEED (MPH): 45    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.70

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
62.2	125.8	267.2	573.6

TABLE 2025-15  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: BROADWAY NORTH OF 20TH ST.  
NOTES: 2025 CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 13220    SPEED (MPH): 45    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.59

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	92.5	194.0	415.3

TABLE 2025-16  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: BROADWAY BETWEEN 20TH ST. AND 19TH ST.  
NOTES: 2025 CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 14310    SPEED (MPH): 45    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.94

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	97.2	204.4	437.8

TABLE 2025-17  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: BROADWAY BETWEEN 19TH ST. AND 17TH ST.  
NOTES: 2025 CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 14315    SPEED (MPH): 45    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.94

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	97.2	204.4	437.9

TABLE 2025-18  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: GRAND AVE. BETWEEN SAN PABLO AVE. AND NORTHGATE AVE.  
NOTES: 2025 CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 24715    SPEED (MPH): 45    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.31

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
67.4	137.7	293.1	629.6

TABLE 2025-19  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: GRAND AVE. BETWEEN NORTHGATE AVE. AND TELEGRAPH AVE.  
NOTES: 2025 CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 24340      SPEED (MPH): 45      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.24

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
66.8	136.3	290.1	623.2

TABLE 2025-20  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: GRAND AVE. BETWEEN TELEGRAPH AVE. AND BROADWAY  
NOTES: 2025 CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 21650      SPEED (MPH): 45      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.74

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
62.4	126.4	268.5	576.5

TABLE 2025-21  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: 20TH AVE. BETWEEN SAN PABLO AVE. AND TELEGRAPH AVE.  
NOTES: 2025 CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 5015    SPEED (MPH): 45    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.38

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	103.7	218.7

TABLE 2025-22  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: 20TH AVE. BETWEEN TELEGRAPH AVE AND BROADWAY  
NOTES: 2025 CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 6725    SPEED (MPH): 45    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.66

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	61.8	125.0	265.3



TABLE 2025-23  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: WILLIAMS ST. BETWEEN SAN PABLO AVE. AND TELEGRAPH AVE.  
NOTES: 2025 CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 3575    SPEED (MPH): 35    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.73

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	53.7	115.1

TABLE 2025-24  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: 19TH ST. BETWEEN SAN PABLO AVE. AND TELEGRAPH AVE.  
NOTES: 2025 CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 10925    SPEED (MPH): 35    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.58

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	52.5	112.5	242.1

TABLE 2025-25  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: 19TH ST. BETWEEN TELEGRAPH AVE. AND BROADWAY  
NOTES: 2025 CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 14230      SPEED (MPH): 35      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.73

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	62.5	134.2	288.7

TABLE 2025-26  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: 18TH ST. BETWEEN MARTIN LUTHER KING JR. WY. AND SAN PABLO AVE.  
NOTES: 2025 CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 6220      SPEED (MPH): 35      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.13

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	77.4	166.4

**APPENDIX H**  
**HAZARDOUS MATERIALS REGULATORY AGENCIES**

## **Regulatory Agency Framework for Hazardous Materials Uptown Mixed-Use Project EIR**

As noted in Section IV.G., Hazards and Hazardous Materials, Federal, State, regional, and local agencies are involved in the regulation of hazardous materials. A description of agency jurisdiction is summarized below. Because the regulatory framework for hazardous materials developed incrementally over time, some overlap exists in agency jurisdiction and responsibilities listed below.

**(a) Environmental Protection Agency (USEPA).** The United States Environmental Protection Agency (USEPA) is responsible for enforcement and implementation of federal laws and regulations pertaining to hazardous materials. The federal regulations are primarily codified in Title 40 of the Federal Code of Regulations (40 CFR). The legislation is outlined in the Resource Conservation and Recovery Act of 1976 (RCRA); the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA); and the Superfund Amendments and Reauthorization Act (SARA). These laws and associated regulations include specific requirements for facilities that generate, use, store, treat, and/or dispose of hazardous materials. The USEPA provides oversight and supervision for federal Superfund investigation/remediation projects, evaluates remediation technologies, and develops hazardous materials disposal restrictions and treatment standards.

**(b) State Agencies.** The roles of five State agencies are described below.

*Department of Toxic Substances Control (DTSC).* In California, the California EPA (CalEPA), Department of Toxic Substances Control (DTSC) is authorized by the USEPA to enforce and implement federal hazardous materials laws and regulations. Most State hazardous materials regulations are contained in Title 22 of the California Code of Regulations (CCR). DTSC provides cleanup and action levels for subsurface contamination; these levels are equal to or more restrictive than federal levels. DTSC acts as the lead agency for some soil and groundwater cleanup projects, although in Oakland most authority for contaminated sites has been ceded to local agencies. DTSC has also developed land disposal restrictions and treatment standards for hazardous waste disposal in California.

*Air Resources Board (ARB).* The California Toxic "Hot Spots" Information and Assessment Act of 1987 requires that industry provide information to the public on emissions of toxic air contaminants and their impact on public health. The Act requires that the ARB and local air quality districts inventory sources of over 200 toxic air contaminants, identify high priority emission sources, and prepare a health risk assessment for each of these priority sources. Industry-wide health risk assessments are in the process of being prepared for three common priority sources: auto body shops, dry cleaners, and gasoline service stations.

*State Water Resources Control Board (SWRCB).* The SWRCB issues regulations on how to implement Underground Storage Tank (UST) programs. It also allocates monies to eligible parties who request reimbursement of funds to clean up soil and groundwater pollution from UST leaks.

*California Office of Emergency Services (OES).* The OES State Warning Point compiles statistics on hazardous materials spills and releases, and acts as the Governor's 911 Dispatch Center, dispatching other regional, State, and federal agencies to the scene, if necessary, for spills and releases. The State Warning Point, under federal SARA Title III requirements must be notified as soon as possible after a spill or release.

(c) **Regional Agencies.** Two regional agencies oversee hazardous materials and are described below.

*Regional Water Quality Control Board (RWQCB).* The City of Oakland is located within the jurisdiction of the San Francisco Bay RWQCB. The RWQCB is authorized by the Porter-Cologne Water Quality Act of 1969 to protect the waters of the State. RWQCB can act as lead agency to provide oversight for sites where the quality of groundwater or surface waters are threatened and can approve site closure. The RWQCB also responds if, in an emergency, surface and groundwater is impacted.

*Bay Area Air Quality Management District (BAAQMD).* The BAAQMD is the regional enforcement agency for ARB regulations. This regional agency regulates point source air pollutants, including businesses such as metal platers and auto body shops, as well as mobile sources (e.g., automobiles). BAAQMD staff also respond to odor and asbestos complaints from City staff or the general public.

(d) **Local Agencies.** Three local agencies play a role in planning for and regulating hazardous materials.

*Oakland Fire Services Agency (OFSA).* As a Certified Unified Program Agency (CUPA), the Hazardous Materials Unit is responsible for enforcing most of the hazardous materials regulations within the City of Oakland, including regulations related to underground and aboveground storage tanks, hazardous waste generation, and Hazardous Materials Business Plans. OFSA is also responsible for inspections of businesses in the CUPA program, and acts as first responder to hazardous materials incidents in the City of Oakland.

*Alameda County Health Care Services (ACHCS).* ACHCS provides assistance to OFSA and other first-responders by providing a emergency vehicle for identification and advice to first responders regarding the hazardous materials present in the event of a fire or an accidental spill. Through its Local Oversight Program, ACHCS also acts as an oversight agency for remediation of some sites, including sites where releases from underground storage tanks have occurred.

*City of Oakland Public Works Agency (OPWA).* Although not directly responsible for the enforcement of hazardous materials regulations, OPWA's Environmental Services Division is responsible for several programs related to hazardous materials and public safety. This division is responsible for managing and implementing recycling programs as mandated by the County and the State, and for monitoring the Franchise Agreement for Solid Waste and Yard Waste Collection and Disposal Services. The division is also responsible for environmental site assessments for City-owned property, the Clean Water Program, the Watershed Improvement Program, and the Clean Creek Campaign including restoration projects on public property and adopt-a-creek volunteer programs. The Environmental Services Division also works on a wide range of environmental policy issues including air quality, water quality, and dioxin elimination.

**APPENDIX A-2**  
**RESOLUTIONS AUTHORIZING AB 436 (PUBLIC RESOURCES CODE**  
**SECTION 21159.25)**

## OAKLAND CITY COUNCIL

RESOLUTION No. 76096 C.M.S.

INTRODUCED BY COUNCILMEMBER \_\_\_\_\_

*MPCU*

**RESOLUTION AUTHORIZING IMPLEMENTATION OF  
AB 436 (ENCOURAGING IN-FILL DEVELOPMENT  
WITHIN FOUR AREAS OF DOWNTOWN OAKLAND  
THROUGH STREAMLINED ENVIRONMENTAL REVIEW)  
AND FINDING THAT CITY OF OAKLAND POLICIES  
ARE CONSISTENT WITH COMPACT DEVELOPMENT  
PRINCIPALS**

**WHEREAS**, the California State Legislature approved Assembly Bill 436 ("AB 436") in September, 2001 and the Governor approved the legislation on October 10, 2001; and

**WHEREAS**, AB 436 expressly authorizes the City of Oakland to use a focused environmental impact report ("Focused EIR") under the provisions of the California Environmental Quality Act ("CEQA") for projects within four geographic districts located in the central downtown that consist of multiple-family residential development or for residential and commercial mixed use projects with not more than twenty-five percent of the total floor area of the project used for retail space, if certain conditions are met; and

**WHEREAS**, pursuant to AB 436, the Oakland City Council must vote to authorize the implementation of the practice of using Focused EIRs and further determine that the City's General Plan, zoning ordinance and any other related policies and programs are consistent with the compact development principals set forth in the legislation; and

**WHEREAS**, AB 436 sets forth an additional condition requiring the City of Oakland to submit a draft set of findings to the State Office of Planning and Research ("OPR") determining that the Oakland General Plan, zoning ordinance and related policies and programs are consistent with the principals that encourage compact development; and

**WHEREAS**, on October 26, 2001, City staff submitted a proposed set of findings to the OPR for their review and consideration; and

**WHEREAS**, this item came before the Oakland City Council Community and Economic Development Committee on December 4, 2001 and before the full City Council on December 11, 2001 and the City Council heard public testimony about implementing AB 436.  
**Now, Therefore, Be It**

**RESOLVED:** That, the City Council, as the final decision-making body of the lead agency, finds and determines, prior to taking action on the implementation of AB 436, that the legislation expressly excludes the City Council's affirmative vote on this resolution and related determination by the Council from the definition of "project" for the purposes of CEQA.

**FURTHER RESOLVED:** That, the City Council, having heard, considered and weighed all the evidence in the record presented about AB 436 and being fully informed of the provisions of the legislation, hereby authorizes the implementation of AB 436.

**FURTHER RESOLVED:** That, as a part of the City Council's authorization to implement the use of Focused EIRs for the four housing target areas within central downtown Oakland, the City Council finds and determines that the Oakland General Plan, zoning ordinance and related policies and programs are consistent with the compact development principals set forth in AB 436, as detailed in Exhibit A, attached hereto and incorporated herein by reference.

**FURTHER RESOLVED:** That, the City Council further authorizes the Planning Commission, in its sole discretion, to conduct a public hearing on its intent to use AB 436 for a specific project. If the Planning Commission provides such a hearing and thereafter adopts a Notice of Intent to Use AB 436 for a specific project, the Planning Commission's decision to use AB 436 shall be deemed to be administratively final.

**FURTHER RESOLVED:** That, the City Council finds and determines that this Resolution is exempt from CEQA and the Environmental Review Officer is directed to cause to be filed a Notice of Exemption with the Alameda County Clerk and the State OPR on the basis that this Resolution is not considered a "project" under CEQA.

**FURTHER RESOLVED:** That, the custodians and locations of the documents or other materials which constitute the record of proceedings upon which the City Council's decision is based are respectively: (a) Community & Economic Development Agency, Planning & Zoning Division, 250 Frank H. Ogawa Plaza, 3rd floor, Oakland CA.; and (b) Office of the City Clerk, 1 Frank H. Ogawa Plaza, 1<sup>st</sup> floor, Oakland, CA.

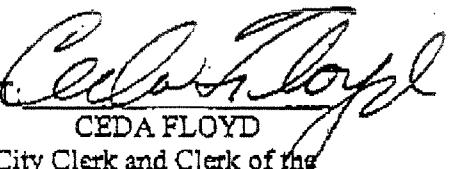


**FURTHER RESOLVED:** That, the recitals contained in this resolution are true and correct and are an integral part of the City Council's decision.

In Council, Oakland, California, DEC 18 2001, 2001

**PASSED BY THE FOLLOWING VOTE:**

AYES- 6 Chang, Mayne, Reid, Spees, WAN and De la Fuente  
NOES- 2 (Brunner, Nadel)  
ABSENT- 0  
ABSTENTION- 0

ATTEST:   
CEDA FLOYD  
City Clerk and Clerk of the  
Council of the City of  
Oakland, California

## EXHIBIT A

### City Council Findings Determining that the Oakland General Plan, Zoning Ordinance and Related Policies are Consistent with the Principals that Encourage Compact Development Pursuant to AB 436

#### I. Promotes efficient transportation systems:

- *Transit-oriented development should be encouraged at existing or proposed transit nodes, defined by the convergence of two or more modes of public transit such as BART, bus, shuttle service, light rail or electric trolley, ferry, and inter-city or commuter rail (Land Use and Transportation Element (LUTE) Transportation Policy T2.1). (Neighborhood Policy N8.1)* The implementation of AB436 would help to implement this policy, particularly for those developments which are within a quarter mile from key downtown public transit nodes (12<sup>th</sup> Street, 19<sup>th</sup> Street, Lake Merritt BART stations, AC Transit main trunk lines along San Pablo, Telegraph and Broadway and the Oakland AMTRAK Station).
- *Transit-oriented developments should be pedestrian oriented, encourage night and day time use, provide the neighborhood with needed goods and services, contain a mix of land uses, and be designed to be compatible with the character of surrounding neighborhoods (LUTE Transportation Policy T2.2)* The City has strongly encouraged mixed use development and ground floor retail and services uses in an effort to create more pedestrian activity and to serve both existing and new residents.
- *Promote neighborhood-serving commercial development within one-quarter to one-half mile of established transit routes and nodes. (LUTE Transportation Policy T2.3).* AB 436 would directly encourage this policy by providing a more streamlined development review process within this transit radius.
- *The City should encourage and promote use of public transit in Oakland by expediting the movement of and access to transit vehicles on designated "transit streets" as shown on the Transportation Plan (LUTE Transportation Policy T3.6).* The City has worked with AC Transit to assure that San Pablo Avenue is a main transit thoroughfare for buses; has actively pursued redevelopment and more intensive development around BART stations; and has required shuttle service from major office developments to downtown BART stations and has actively promoted appropriate transit stops and other facilities along major transit corridors.
- *Housing in the downtown should be encouraged in identifiable districts, within walking distance of the 12<sup>th</sup> Street, 19<sup>th</sup> Street, City Center, and Lake Merritt BART stations to encourage transit use, and in other locations where compatible with surrounding uses (LUTE Downtown Policy D10.2).* The four areas where AB436 would apply are within close proximity of the 12<sup>th</sup> Street and 19<sup>th</sup> Street and Lake Merritt BART stations.
- *Pedestrian-friendly commercial areas should be promoted (Downtown Policy D3.1).* Adding housing in the four target areas identified in AB436 will help enhance the existing and growing commercial areas in the Central Business District by creating and increasing a residential population within walking distance of downtown's retail and commercial businesses.

## II. Promotes economic growth:

- *Activities and amenities that encourage pedestrian traffic during the work week, as well as evenings and weekends should be promoted (LUTE Downtown Policy D5.1).* The creation of additional housing in the four target areas will add a residential population that will increase pedestrian traffic
- *in the downtown both during the work week, as these residents are travelling to and from BART stations or places of employment, and during the weekends and evenings.*
- *Construction on vacant land or to replace surface parking lots should be encouraged throughout the downtown, where possible (LUTE Downtown Policy D6.1).* Many of the potential infill development sites within the four clusters are presently surface parking lots.
- *Downtown residents should have access to goods and services to meet their daily and long-term needs within the downtown area (LUTE Downtown Policy D9.2)* Mixed use developments will encourage goods and services in close proximity to the new housing projects.
- *Housing in the downtown should be encouraged as a vital component of a 24-hour community presence (LUTE Downtown Policy D10.1).* The incorporation of housing within the downtown will further this policy of a 24 hour community.
- *Retail uses should be focused on "nodes" of activity, characterized by geographic clusters of concentrated commercial activity, along corridors that can be accessed through many modes of transportation. (LUTE Industry and Commerce Policy C3.3).* This policy will be attained by encouraging groundfloor retail and services uses within mixed use or housing developments.
- *Mixed use developments should be encouraged in the downtown for such purposes as to promote its diverse character, provide for needed goods and services, support local art and culture and give incentive to reuse existing vacant or underutilized structures. (LUTE Downtown Policy D11.1)*
- *Mixed use development should be allowed in commercial areas, where the residential component is compatible with the desired function of the area. (LUTE Downtown Policy D11.2)*

## III. Promotes affordable housing:

- *Housing in the downtown should not be geared toward any one housing market, but rather should be promoted for a range of incomes, ownership options, household types, household sizes, and needs. (LUTE Downtown Policy D10.4)*
- *The City encourages local non-profit organizations, affordable housing proponents, the business community, the real estate industry, and other local policy makers to join efforts to advocate for the provision of affordable housing in communities throughout the Bay Area region (LUTE Neighborhood Policy N4.2).*
- *The Oakland Redevelopment Agency has adopted a policy of using twenty five percent of increment funds received for affordable housing developments.*

## IV. Promotes energy efficiency:

- *The City Council has established a Sustainable Development Initiative Program (December, 1998), that calls for a range of strategies focusing on the "3 E's): environment, economy and equity. Among the specific objectives of this program is the implementation of Sustainable Design Guidelines for new construction. Energy efficiency and renewable energy are cornerstones of these guidelines. These guidelines apply throughout the entire lifecycle of a building from pre-design through operation.*

V. Promotes an appropriate balance of jobs and housing:

- *The Oakland Sustainable Initiative Program, described above, also includes the objective of attracting higher density, mixed use developments near transit and jobs.*

VI. Protects the environment:

- *Downtown development should be visually interesting, harmonize with its surroundings, respect and enhance important views in and of the downtown, respect the character, history, and pedestrian-orientation of the downtown, and contribute to an attractive skyline (LUTE Downtown Policy D2.1)*
- *Infill housing that protects surrounding development and the streetscape should be encouraged in the downtown to strengthen and or create distinct districts. (LUTE Downtown Policy D10.6)*
- *The City has adopted local guidelines and procedures pursuant to the California Environmental Quality Act (CEQA), has specific tree protection requirements and creek protection requirements.*

VII. Protects open space:

- *The City has established criteria for urban park acquisition, including land in areas with dense concentrations of people, especially children, and land in areas with large concentrations of workers and pedestrians (General Plan Open Space and Recreation (OSCAR) Element, Open Space Policy 2.5)*
- *Allow street closures as a way of creating new parks, plazas, and garden sites in urban neighborhoods. (OSCAR Open Space Policy 2.6)*
- *Continue to require new multi-family development to provide useable open space for its residents (OSCAR Open Space Policy 4.1)*
- *Adoption of new urban open space standards for the central downtown area (S-17 zone) in order to provide certainty and incentives for the provision of quality useable open space most appropriate to high density, downtown housing (Oakland City Ordinance No. 12343).*

VIII. Protects agricultural use:

- *Although agricultural uses are not activities that currently operate within the central downtown area of Oakland, there are specific policies pertaining to community gardens (Open Space Policy OS 2.3) and a city-wide Community Garden Program through the Department of Parks and Recreation. In addition, as has been advocated by many environmental and open space organizations throughout the Bay Area region during the past decade, accommodating higher densities within existing developed areas and encouraging infill development may serve to preserve and protect agricultural uses in the outlying areas of urban areas.*

**APPENDIX A-3**  
**NOTICE OF PREPARATION**

**Notice of Preparation**  
of an  
**Environmental Impact Report**  
for the **Uptown Mixed-Use Project** and  
**Notice of Intent to use Assembly Bill AB 436<sup>1</sup> for this EIR**

The Oakland Community and Economic Development Agency, Planning and Zoning Division, is preparing an Environmental Impact Report (EIR) for the Uptown Mixed-Use project described below. We are requesting comments on the scope and content of this EIR. We have prepared an environmental Initial Study that identifies areas of probable environmental effects. These probable environmental effects are summarized below. The Initial Study is available at the City of Oakland Planning Division, 250 Frank Ogawa Plaza, Suite 3330, Oakland, CA or by contacting Patricia McGowan at 510-238-3063, or pmcgowan@oaklandnet.com.

A Notice of Preparation was issued in the fall of 2000 for a different project on this site. That project is no longer under consideration; it was withdrawn and an EIR was not prepared. This current Notice of Preparation is announcing the preparation of an EIR for a new project on the Uptown site.

The EIR to be prepared for this project may be a Focused EIR as authorized by State of California Public Resources Code Section 21159.25 (formerly referred to as Assembly Bill 436) and authorized by the Oakland City Council. Pursuant to Section 21159.25, focused EIR's may be prepared for projects located in specified areas of downtown Oakland (including the Uptown area) and where the proposed project consists of multiple-family residential development, or residential and retail mixed-use development where less than 25% of the total floor area of the project will be used for retail. In such an EIR, no discussion is required for alternatives to the project, cumulative impacts of the project or the growth inducing impacts of the project. The EIR which was prepared and certified for the Land Use and Transportation Element of the Oakland General Plan will be used as one of the bases for environmental documentation. The City finds that all the applicable criteria of Section 21159.25 of the State of California Public Resources Code apply to the use of a focused EIR for this project. CEQA provides a 30-day comment period related to the scope and content of the EIR. Such comments are requested by March 28, 2003.

**A Scoping Session Public Hearing with the Oakland Planning Commission is scheduled for March 19, 2003 at 6:30 pm, in Hearing Room 1 of Oakland City Hall, 1 Frank Ogawa Plaza, Oakland, CA.** The Scoping Session with the Planning Commission will be not only to receive comments about the content of the EIR for the project but also will be a public hearing on the intent to use Public Resources Code Section 21159.25 (formerly referred to as AB 436) for the preparation of an EIR for this project. The Planning Commission may make a determination on the intent to use Public Resources Code Section 21159.25 for this EIR.

**Please provide comments at the Scoping Session described above, or send your comments on the scope of the Focused EIR by March 28, 2003.** Your comments or questions should be directed to Patricia McGowan, City of Oakland Planning Division, 250 Frank H. Ogawa Plaza, Suite 3330, Oakland, CA 94612, phone (510) 238-3063, fax (510) 238-6538, e-mail pmcgowan@oaklandnet.com. Please reference case number ER 03-0007 in your response.

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<sup>1</sup> Assembly Bill 436 was incorporated into the State of California Public Resources Code in Section 21159.25.

# City of Oakland Notice on Preparation of an Environmental Impact Report for the Uptown Mixed-Use Project and Notice of Intent to Use Assembly Bill 436 for this EIR

February 26, 2003

Page 2

The City of Oakland is the Lead Agency for the project, which means that the City is the public agency with the greatest responsibility for approving the project. The City is sending this notice to Responsible Agencies and other interested parties. Responsible Agencies are those public agencies besides the City of Oakland that may also have a role in approving or carrying out the project. Responsible Agencies will need to use the EIR that the City is preparing when considering approvals related to the project.

When the Draft EIR is published, it will be sent to all Responsible Agencies and to others who respond to this Notice of Preparation or who otherwise indicate that they would like to receive a copy.

**PROJECT TITLE:** Uptown Mixed Use Project

**PROJECT LOCATION:** The project is proposed on a nine-block 15-acre site located in the Uptown area of downtown Oakland, CA. Blocks 1 through 6 are generally bounded by Thomas L. Berkley Way (20<sup>th</sup> Street) on the north, Telegraph Avenue on the east, 18<sup>th</sup> Street on the south, and San Pablo Avenue on the west. (The Fox Theater, which is located on the east side of Block 6, is not a part of the proposed project.) Blocks 7 and 8 are located on the north side of Thomas L. Berkley Way (20<sup>th</sup> Street), east and west of Telegraph Avenue. Block 9 is located on the southeastern corner of Telegraph Avenue and 22<sup>nd</sup> Street, approximately two blocks north of the other eight blocks. The project site contains numerous parcels, containing a mixture of buildings, surface parking lots and a parking structure available for public parking.

Figure 1 shows the location of the proposed project. Figure 2 shows the project site on an aerial photograph.

**PROJECT SPONSOR:** Forest City Residential West, Inc.

**PROJECT DESCRIPTION:** The preliminary project description, submitted in February, 2003, proposes to redevelop a nine-block area in Downtown Oakland with the following mix of uses:

- approximately 1,500 to 1,700 residential units (including apartments, condominiums, student and faculty housing). Twenty percent (20%) of the rental apartments, excluding the condominiums, student and faculty housing, will be affordable to households earning 50% or less of the area's median income (AMI). An additional 5% of the rental housing will be affordable to households earning 120% or less of the AMI.
- approximately 40,000 to 50,000 square feet of commercial, retail, and service uses;
- a 25,000 square-foot new public park; and
- approximately 1,700 to 2,000 parking spaces (located predominantly in parking structures).

A description of the project's preliminary development concept for each block is provided below. This scenario could change slightly as the project is refined. Refer to Figures 1 and 2 for the location of the subject blocks.

On Blocks 1-6, approximately 1,100 residential units are proposed in six multi-story buildings, with associated residential parking and a 25,000 square foot public park. The residential units are proposed in five-story buildings atop a parking podium along with one 19-story high rise located in Block 5 along San Pablo Avenue. The project also proposes approximately 22,000 square feet of pedestrian-oriented retail, commercial, or service uses on the ground floor of the proposed buildings fronting onto

City of Oakland Notice on Preparation of an Environmental Impact Report for the  
Uptown Mixed-Use Project and Notice of Intent to Use Assembly Bill 436 for this EIR

February 26, 2003

Page 3

Telegraph Avenue. Parking is proposed within and below the project buildings providing approximately 1,200 parking spaces for use primarily by the residential tenants of the project and retail customers. The proposed project also includes the construction of two new streets within Blocks 1-6, in a north-south direction between 18<sup>th</sup> St. and Thomas L. Berkley Way (20<sup>th</sup> Street), as shown on Figure 1.

On Block 7, a high rise building approximately 19 to 22-stories, containing student housing is proposed along with low-rise buildings, likely 3-stories, containing faculty housing. The student housing will contain approximately 1,000 beds (which equates to approximately 365 residential units<sup>2</sup>) plus approximately 50 residential units of faculty housing. Also proposed on Block 7 is approximately 11,000 sf retail space, and 550 parking spaces (for residents and retail customers) to be located in a parking garage, contained either within or adjacent to the residential buildings proposed on this block.

Block 8 is an alternate site for relocation of the Sears Auto Center. (See description below.)

Block 9 is proposed as the relocation site for the Sears Auto Center that is currently located at 1901 Telegraph Avenue, on Block 4. Currently, a fast-food hamburger restaurant ("Giant Burger") occupies the site. Block 9 would contain approximately 10,000sf of retail space auto center and approximately 50 parking spaces.

In addition to the project features described above, enhanced lighting and streetscape improvements are proposed along the street frontages of the project area. The City of Oakland will be undertaking streetscape improvements along Telegraph Avenue within the project site.

A Variant of the project that will be analyzed in the EIR is the construction of 10-story buildings on Blocks 3 and 4 instead of 5-story buildings. The building on Block 3 would be approximately 130 feet in height and contain approximately 200 residential units and approximately 7,500 square feet of commercial retail space on the ground floor. The building on Block 4 would be approximately 130 feet in height and contain approximately 200 residential units and up to 20,000 square feet of commercial retail space on the ground floor. Each building would also have a two-level subterranean parking structure of approximately 250 and 270 spaces, respectively.

The proposed project will require discretionary permits which may include, but are not limited to, a Major Conditional Use Permit, Design Review, Planned Unit Development, Subdivision Maps to combine parcels, subdivide parcels or create condominiums, if such are proposed, and actions by the Redevelopment Agency such as Disposition and Development Agreements. Such permits will be considered by the Planning Commission, City Council and Board of the Oakland Redevelopment Agency, as appropriate.

The project sponsor proposes to start construction immediately upon receiving project approval on Blocks 1 and 2 for occupancy by 2006. The project sponsor anticipates that the rest of the project will follow immediately in phases with completion by 2010.

The project site may contain hazardous waste sites listed under Government Code Section 65962.5.

**PROBABLE ENVIRONMENTAL EFFECTS:** It is anticipated that the proposed project may have environmental effects in the following areas: transportation/traffic, air quality, noise, visual/aesthetic impacts, cultural resources, hazardous materials, hydrology/water quality, land use and planning, population and housing, utilities and service systems, and mandatory findings of significance.

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<sup>2</sup> 2.75 beds equates to one residential unit.



City of Oakland Notice on Preparation of an Environmental Impact Report for the  
Uptown Mixed-Use Project and Notice of Intent to Use Assembly Bill 436 for this EIR

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February 26, 2003

Page 4

**ENVIRONMENTAL EFFECTS NOT LIKELY TO REQUIRE FURTHER ANALYSIS:** An environmental Initial Study was prepared and it was determined that the following potential environmental effects of the proposed project would be less than significant or have not impact and will not be further studied in the EIR: agricultural resources, biological resources, geology and soils, mineral resources, public services, recreation and energy.

**DATE AND LOCATION FOR SUBMITTING COMMENTS ON THE SCOPE OF THE EIR:** Please send your comments on the scope of the Focused EIR by **March 28, 2003**. Your comments or questions should be directed to Patricia McGowan, City of Oakland Planning Division, 250 Frank H. Ogawa Plaza, Suite 3330, Oakland, CA 94612, phone (510) 238-3063, fax (510) 238-6538, e-mail pmcgowan@oaklandnet.com. Please reference case number ER 03-0007 in your response.

**Date:** February 26, 2003  
**File No.** ER 03-0007

LESLIE GOULD  
Environmental Review Officer

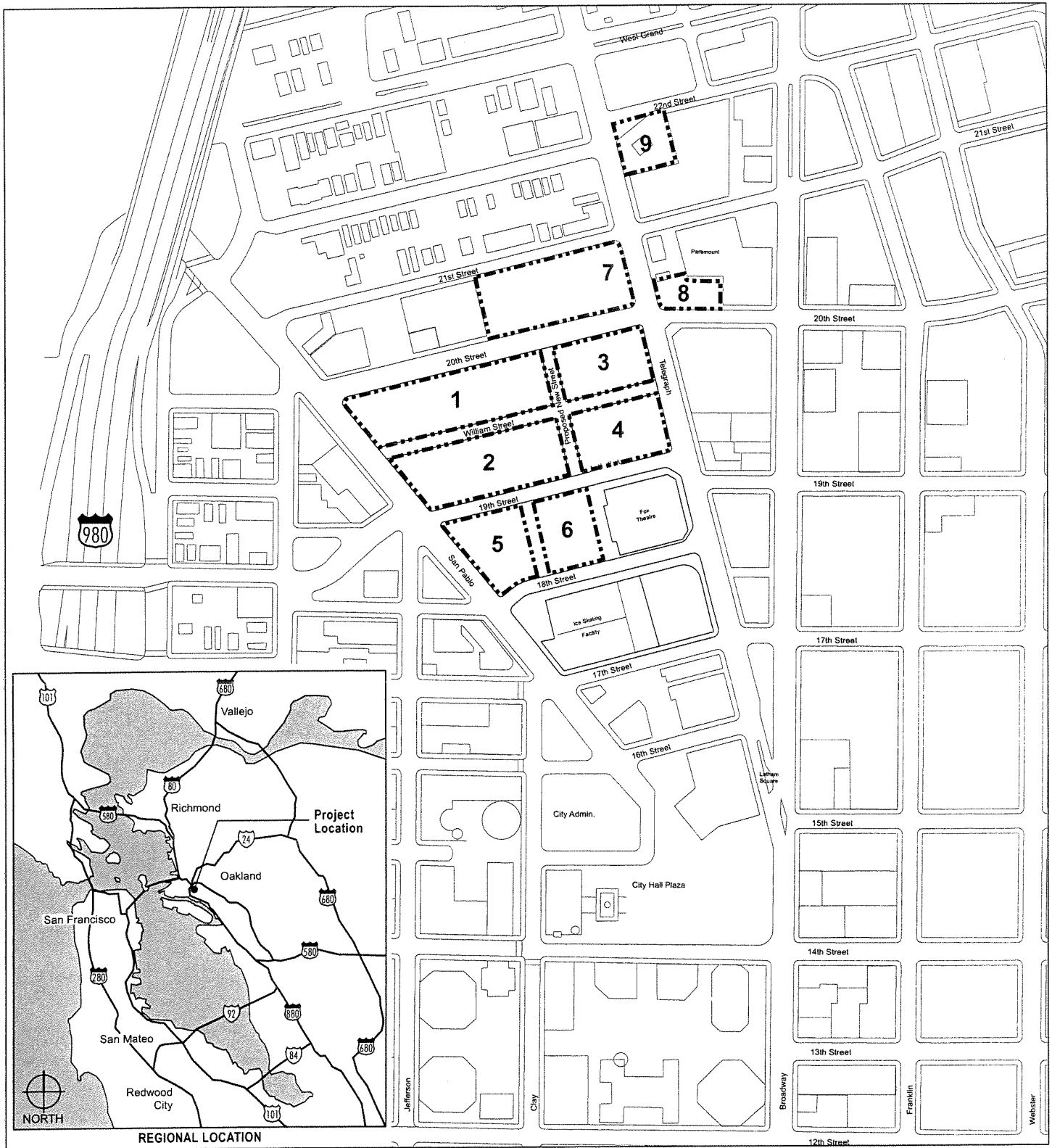
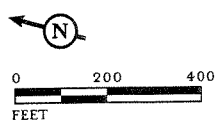


FIGURE 1

LSA

*Uptown Residential Project EIR*  
 Project Location and  
 Regional Location



LEGEND  
 [Dashed line symbol] PROJECT PARCELS

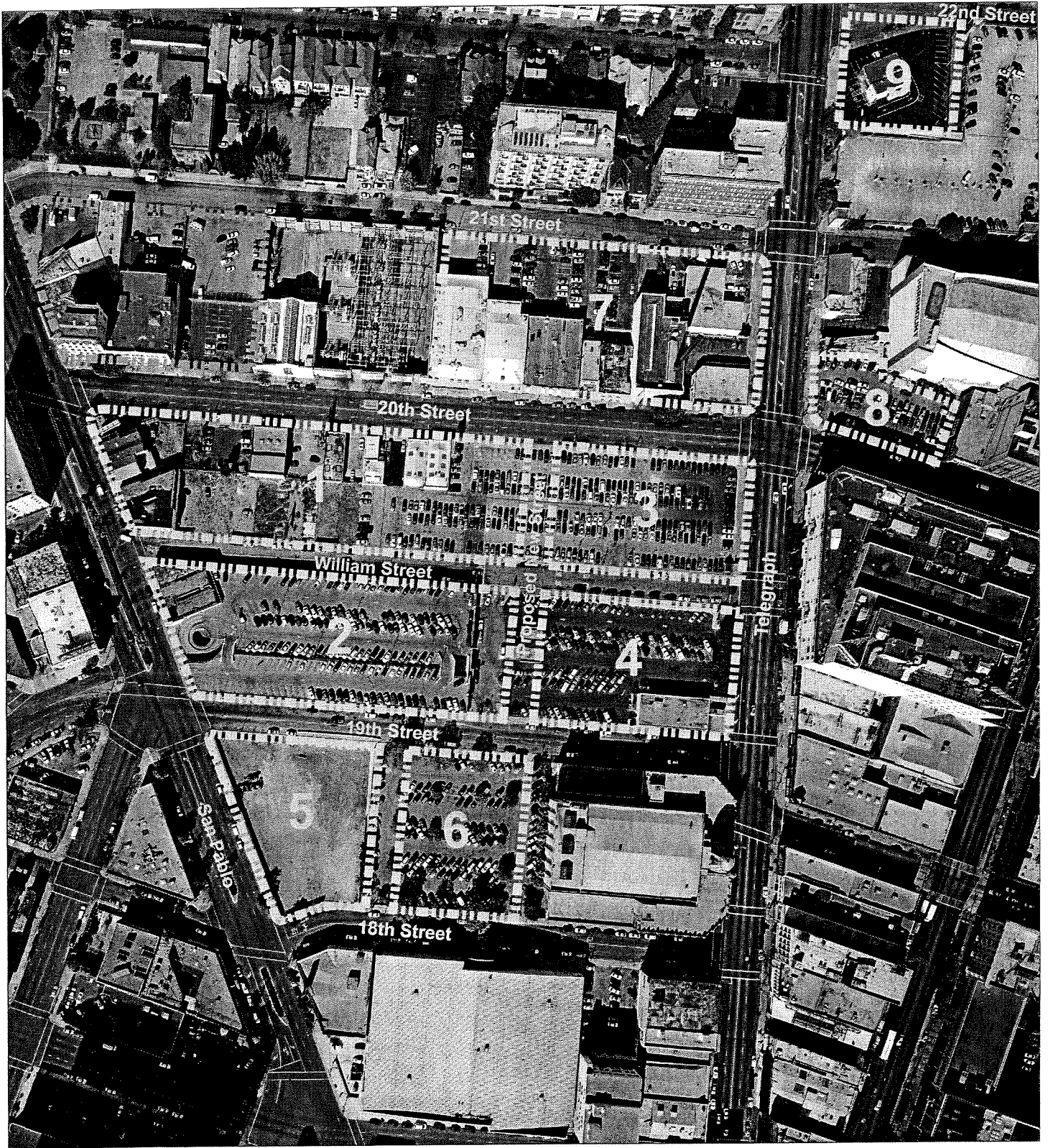
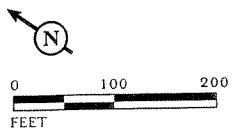


FIGURE 2

*Uptown Residential Project EIR  
Project Parcels*

LSA



LEGEND	
	UPTOWN PROJECT PARCELS
	TLBS PROJECT PARCELS

SOURCE: LSA ASSOCIATES, INC., 2002.

I:\IMAGES\GRAPHICS\JOBS\FCR230 UPTOWN\FIGURES\FIG\_2.A1 (05/02/03)

**APPENDIX A-4  
COMMENT LETTERS**



Post-It® Fax Note	7671	Date	3/28/03	* of pages	4
To	Patricia McGowan	From	BRIMN WINES		
Co./Dept.	Oakland/Economic	Co.	SF RIVERB		
Phone #	510-238-3063	Phone #	510 622-9680		
Fax #	510-238-6538	Fax #	510-622-2460		

## Quality Control Board Region

b.ca.gov  
alifornia 94612  
622-2460



Gray Davis  
Governor

Date: March 28, 2003  
File No. 2198.09 (BEW)

LSA ASSOCIATES, INC.

APR 08 2003

Berkeley

Patricia McGowan  
City of Oakland, Community and Economic Development Agency  
250 Frank Ogawa Plaza, Suite 3330  
Oakland, CA 94612-2032

Re: Notice of Preparation for the Uptown Mixed Use Development Project draft  
Environmental Impact Report  
SCH Number 2000052070

Dear Ms. McGowan:

Regional Water Quality Control Board (Regional Board) staff have reviewed the Notice of Preparation (NOP) for the Uptown Redevelopment Project draft *Draft Environmental Impact Report* (DEIR). The DEIR will evaluate the potential environmental impacts that might reasonably be anticipated to result from the proposed action, which includes the redevelopment of a nine block area in Downtown Oakland with a mixture of housing, commercial uses, retail uses, service uses, and a new public park. Regional Board staff have the following comment on the NOP for the DEIR.

### Comment 1

*Initial Study and Environmental Review Checklist, Section VIII, Hydrology and Water Quality, page 23.*

The discussion of stormwater impacts in this section is incomplete. Most of the discussion on page 23 is related to minimizing stormwater impacts related to construction of the projects. The discussion of potential water quality impacts in the DEIR should be expanded to include a discussion of Alameda County's National Pollutant Discharge Elimination System (NPDES) permit for stormwater discharges. Under the terms of the NPDES permit, post-construction best management practices (BMPs) at new development and significant redevelopment projects are to meet the maximum extant practicable (MEP) definition of treatment specified in the Clean Water Act (CWA). Alameda County is implementing the current NPDES permit for discharges of stormwater under the *Alameda Countywide Clean Water Program, Stormwater Management Plan* (SMP) (EOA, Inc., February 1997). New Development and Construction Goals are discussed in Section 7 of the SMP. These goals include the following:

- Incorporate stormwater quality controls into the planning and permitting of new development/significant redevelopment projects;
- Continue to promote implementation of the *Regional Board Staff Recommendations for New and Redevelopment Controls for Stormwater Programs*.

Ms. McGowan

- 2 -

NOP for Uptown Mixed Use Development

Tables 2 and 4 of the *Regional Board Staff Recommendations for New and Redevelopment Controls for Stormwater Programs* states that residential and commercial projects with greater than five acres of directly coupled impervious area are to implement Tier 3 post-construction stormwater best management practices (BMPs). Tier 3 BMPs are to be treatment controls that are based on performance goals, including a reduction by 80 percent of the annual total suspended solid loadings expected from the site in its developed condition. Appropriate Tier 3 controls are specified as: wet ponds; constructed wetlands; swales and vegetated filter strips; extended detention basins; and sand filters.

The Alameda County NDPES permit was re-issued on February 19, 2003. New development and significant redevelopment Projects that are constructed after February of 2005 will be required to comply with the numeric standards for post-construction stormwater BMPs in the re-issued permit. Treatment BMPs are to be constructed that incorporate, at a minimum, the following hydraulic sizing design criteria to treat stormwater runoff. As appropriate for each criterion, local rainfall data are to be used or appropriately analyzed for the design of the BMPs.

**Volume Hydraulic Design Basis:** Treatment BMPs whose primary mode of action depends on volume capacity, such as detention/retention units or infiltration structures, shall be designed to treat stormwater runoff equal to:

1. the maximized stormwater quality capture volume for the area, based on historical rainfall records, determined using the formula and volume capture coefficients set forth in *Urban Runoff Quality Management, WEF Manual of Practice No. 23/ ASCE Manual of Practice No. 87, (1998)*, pages 175-178 (e.g., approximately the 85<sup>th</sup> percentile 24-hour storm runoff event); or
2. the volume of annual runoff required to achieve 80 percent or more capture, determined in accordance with the methodology set forth in Appendix D of the *California Stormwater Best Management Practices Handbook, (1993)*, using local rainfall data.

**Flow Hydraulic Design Basis:** Treatment BMPs whose primary mode of action depends on flow capacity, such as swales, sand filters, or wetlands, shall be sized to treat:

Ms. McGowan

- 3 - NOP for Uptown Mixed Use Development

1. 10% of the 50-year peak flow rate; or
2. the flow of runoff produced by a rain event equal to at least two times the 85th percentile hourly rainfall intensity for the applicable area, based on historical records of hourly rainfall depths; or
3. the flow of runoff resulting from a rain event equal to at least 0.2 inches per hour intensity.

Regional Board staff strongly encourage the use of landscape-based stormwater treatment measures, such as biofilters and vegetated swales, to manage runoff from the project sites. Since landscape-based stormwater treatment measures require that some of the site surface area be set aside for their construction, the proper sizing and placement of these features should be evaluated early in the design process to facilitate incorporation of the features into the site landscaping. Regional Board staff discourage the use of inlet filter devices for stormwater management. Filtration systems require a maintenance program that is adequate to maintain the functional integrity of the systems and to ensure that improperly maintained filtration devices do not themselves become sources of stormwater contaminants or fail to function. Regional Board staff have observed problems with the use of inlet filter inserts, since these devices require high levels of maintenance and are easily clogged by leaves or other commonly occurring debris, rendering them ineffective. Research conducted by the California Department of Transportation has demonstrated that inlet filters can be clogged by a single storm event. The study found that these devices required maintenance before and after storm events as small as 0.1 inch of rain. In addition, trash, debris, and sediment in the catchment had a significant impact on the frequency of maintenance. Therefore, adequate maintenance of inlet filters to provide MEP water quality treatment would be prohibitively expensive and impractically time consuming.

Regional Board staff recommend that the City refer to *Start at the Source*, a design guidance manual for storm water quality protection, for a fuller discussion of the selection of stormwater management practices. This manual provides innovative procedures for designing structures, parking lots, drainage systems, and landscaping to mitigate the impacts of stormwater runoff on receiving waters. This manual may be obtained from most cities' planning departments, or by contacting the San Francisco Estuary Project (510-622-2465).

Ms. McGowan

- 4 - NOP for Uptown Mixed Use Development

If you have any questions, please contact me at (510) 622-5680 or by e-mail at [bkw@rb2.swrcb.ca.gov](mailto:bkw@rb2.swrcb.ca.gov).

Sincerely,



Brian Wines  
Water Resources Control Engineer  
South/East Bay Section

cc State Clearinghouse, Attn: Katie Shulte Joung, P.O. Box 3044, Sacramento, CA  
95812-3044

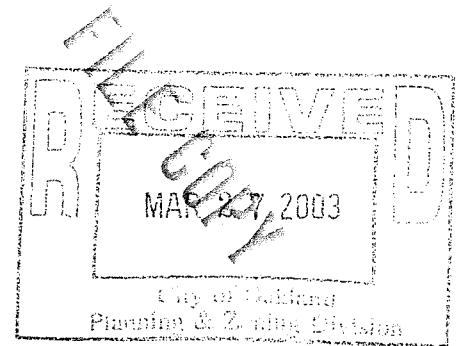




City of Alameda • California

March 25, 2003

Ms. Patricia McGowan  
City of Oakland  
Community and Economic Development Agency  
Planning and Zoning Services Division  
250 Frank H. Ogawa Plaza  
Suite 3330  
Oakland, CA 94612



Re: Notice of Preparation – Uptown Mixed-Use Project  
Case Number ER 03-0007

Dear Ms. McGowan:

Thank you for the opportunity to comment regarding the Notice of Preparation for the Uptown Mixed-Use Project. The City of Alameda is pleased that the City of Oakland is continuing to enjoy economic growth and vitality. Below are listed some specific information that the City of Alameda would like addressed in the Draft Environmental Impact Report:

- A. Vehicular Traffic. As we have noted in other recent Environmental Impact Reports, Oakland and Alameda share a common interest regarding the potential impacts of new projects on the existing street network connecting both the two cities and the interstate highway system. Please include the intersections and crossings included in Attachment A. Many of these intersections were identified as important to inter-city traffic flow by both the City of Oakland and the City of Alameda staff in a series of joint meetings.
- B. Transit and Non-Motorized Transportation. In addition to the consideration of the impact of this project on vehicular traffic, please include a detailed discussion of existing and planned conditions for the following list:
  1. Public Transit: BART, AC Transit are regional mass transit programs that Oakland shares with Alameda and the rest of the Bay Area. Please give a detailed analysis on the existing and planned conditions on these services.
  2. Bicycle Facilities. The size and scale of the proposed project could have direct impacts on bicycle facilities in both Oakland and Alameda. Please give a detailed analysis on the existing and planned conditions of this resource by this project.
  3. Pedestrian Facilities. As stated in correspondence from your office dated January 30, 2003; we understand that the City of Oakland will be utilizing a thorough and meaningful analysis of the potential impacts and possible mitigation measures of this project on Oakland's pedestrian-orientated areas, including Chinatown, a densely populated, pedestrian-centered neighborhood directly linked to Alameda by the Webster/Posey Tubes.

Planning and Building Department


2263 Santa Clara Avenue, Room 190  
Alameda, CA 94501

510 748.4530 • Fax 510 748.4593 • TDD 510 522.7538

neighborhood directly linked to Alameda by the Webster/Posey Tubes.  
We support your efforts for the continued safety and vitality of this  
community.

Thank you for the opportunity to comment on the scope of the environmental analysis to  
be undertaken for this project. We look forward to reviewing the completed Draft  
Environmental Impact Report.

Sincerely,

  
Margaret Kavanaugh-Lynch  
Planner III

Attachment: List of intersections and crossings

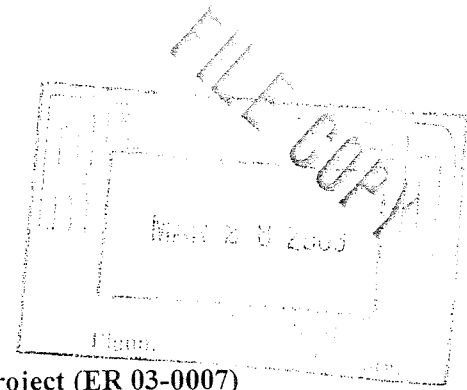
**List of Intersections and crossings to be included in the Uptown Mixed-Use Project**

<b>City of Alameda</b>	Jackson St/6th St	Clay St/7th St
Atlantic Ave/Main St	Jackson St/5th St	Broadway/6th St
Atlantic Ave/Webster St	Harrison St/8th St	Broadway/7th St
Atlantic Ave/ Constitution	Harrison St/7th St	Franklin St/8th St
Lincoln Ave/Webster St	Webster St/8th St	King Way/5th St
Lincoln Ave/Constitution	Webster St/7th St	King Way/7th St
Central Ave/Webster St	Broadway/5th St	Webster St /11St
Clement Ave/Park St	Brush St/12th St	Webster St /12th St
Tinker Ave/Webster St	Brush St/11th St	Harrison St /11th St
Mariner Square Drive/Constitution Way	Brush St/5th St	Harrison St /12th St
<b>City of Oakland</b>	Madison St/5th St	<b>Crossings into Alameda</b>
Oak Street/5th I-80 on- ramp	Madison St/6th St	Posey Tube
Oak St/6th I-80 off- ramp	Madison St/7th St	Webster Tube
Jackson St/7th St	Brush St/7th St	Park Street Bridge
	Castro St/12th St	M. Sweeney Bridge



28 March 2003

Patricia McGowan  
City of Oakland Planning Division  
250 Frank H. Ogawa Plaza, Suite 3330  
Oakland, CA 94612



RE: Scope of EIR for Uptown Mixed-Use Project (ER 03-0007)

Dear Ms. McGowan:

Friends of the Oakland Fox, Inc. is a public benefit non-profit corporation that advocates and supports the historic preservation of the Fox Oakland Theater and its use as a live entertainment venue. Our primary concerns are the potential impacts of the proposed Uptown Mixed-Use Project on the long term viability of the Fox Oakland Theater Building. These potential impacts need to be thoroughly analyzed in several different ways. Therefore, we offer the following comments concerning the content of the EIR that will be prepared for the proposed project:

**Ownership and development of the Fox Oakland.** Although the City currently owns the property, no decision has been made as to its eventual disposition. Frequently the City has indicated a desire to find a private developer to take on development of the property. Currently it is considering plans that would reopen the theater on an interim basis with limited use and continued City ownership; however this is considered to be a step – a very important step – in what will be a multi-year effort to restore and reuse the entire facility and determine its ultimate disposition. Therefore, the EIR must look at the long term viability of the entire facility, NOT as a city-owned project, NOT as a private development, but as a functioning performing arts facility that can accommodate an audience of up to 3,000 plus office and commercial spaces that will have a variety of uses.

**Space behind the Fox Oakland.** The Master Plan Report prepared for the City in 2000 by HHPA looked at five alternatives for reusing the Fox Oakland Theater Building. Each included reserving space for a loading area at the rear of the stage and constructing additional facilities, possibly including commercial space. The HHPA report suggested about 40' for the loading area/additional facilities, 6' for a sidewalk, and 15' to 20' for a pedestrian walkway. While FOOF has no reason to dispute any of these dimensions, we believe all three were meant to be illustrative rather than based on specific programming needs. Therefore, FOOF believes the EIR should carefully analyze the impact of any part of the Uptown Mixed-Use Project that comes within about 75' of the back wall of the Fox Oakland Theater and determine whether its construction and/or operation could have an adverse effect on the long term viability of the Fox Oakland. If, as has been shown on various site plans, the proposed project will be built to about 40' behind the theater, FOOF requests that specific plans and programming for the theater's addition be completed in order to justify that specific distance. Any other distances, less than about 75' should also be carefully and clearly justified in the EIR.

**New uses behind the Fox Oakland.** The proposed project refers to the 0.90 acre parcel behind the Fox Oakland as "Block 6." Currently Block 6 is used as a surface parking lot. Its proposed use is 140 residential units and parking spaces in a 5-story building. Compatibility between the proposed new use on Block 6 and the loading activity and/or commercial activity at the rear of the Fox Oakland must be considered in the EIR. It must be assumed that loading activities could occur at all hours of the night, especially after the

close of a show at the Fox Oakland. It should also be assumed that the new commercial space could house a night club or similar late night activity. And it must be acknowledged that the Oakland Ice Center has late night and early morning activities. All of these activities could be severely impacted by the adjacent residential uses proposed for Block 6 unless adequate mitigations can be incorporated into the proposed project. The design of the wall that faces the Fox Oakland must also be considered. Will there be any openings? Will it be a monolithic 5-story tall wall? What will it be made of? The importance of careful analysis of each of these questions in the EIR is underscored by the fact that Block 6 is shown as part of the first phase of construction.

**Parking.** The Initial Study indicates that the project will cause a loss of approximately 1,700 parking spaces that are currently available to the public. This sounds like a very significant impact. The EIR must include an analysis of what impact this will have on the long-term viability of the 3,000-seat Fox Oakland Theater as well as the existing Paramount Theatre of the Arts, Black Box Theater, Sweet's Ballroom, Oakland Ice Center and the proposed Arts & Entertainment District. Proposed mitigations should be dramatic, innovative, and effective or it is highly unlikely they will work.

**Alternative uses for Block 6.** Although AB 436 does not require study of alternatives to the entire project, FOOF believes that the EIR must study alternate uses on Block 6. To mitigate compatibility problems noted above, the EIR should study relocating to Block 6 the public park currently proposed on Block 1 or the parking structure currently proposed for Block 7. It appears 140 units of residential could be constructed on either of those blocks. To leave 75' clear behind the theater, the EIR look at relocating the street currently proposed between Blocks 5 and 6, and moving everything on Block 6 to the west (toward Block 5). To mitigate some of the public parking shortage created by the proposed project the EIR should study construction of a public parking structure on Block 6 in place of the 140 units of proposed housing.

Thank you very much for allowing us this opportunity to comment on the scope of the EIR for the proposed Uptown Mixed-Use Project.

Sincerely,



Patricia Dedekian  
President

STATE OF CALIFORNIA — BUSINESS, TRANSPORTATION AND HOUSING AGENCY

GRAY DAVIS, Governor

## DEPARTMENT OF TRANSPORTATION

111 GRAND AVENUE  
 P. O. BOX 23660  
 OAKLAND, CA 94623-0660  
 PHONE (510) 286-5505  
 FAX (510) 286-5513  
 TTY (800) 735-2929



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March 11, 2003

ALA880595  
 AIA-880-31.42  
 SCH 2000052070

Ms. Patricia McGowan  
 City of Oakland  
 Community and Economic Development Agency  
 250 Frank Ogawa Plaza, Suite 3330  
 Oakland, CA 94612

Dear Ms. McGowan:

## UPTOWN MIXED USE PROJECT — NOTICE OF PREPARATION

Thank you for including the California Department of Transportation (Department) in the early stages of the environmental review process for the Uptown Mixed Use project. The following comments are based on the Notice of Preparation.

**Traffic Analysis**

Please ensure that the information detailed below is provided in the Traffic Study to ensure a thorough assessment of project-related impacts to State roadway facilities. We encourage the City of Oakland to coordinate preparation of the study with our office, and we would appreciate the opportunity to review the scope of work. Please see the Department's "Guide for the Preparation of Traffic Impact Studies" at the following website for more information:

<http://www.dot.ca.gov/hq/traffops/developserv/operationalsystems/reports/tisguidc.pdf>

1. Project-related trip generation, distribution, and assignment; the assumptions and methodologies used to develop this information should be detailed in the study.
2. Average Daily Traffic, AM and PM peak hour volumes and level of service (LOS) on all significantly affected streets and highways, including crossroads and controlled intersections for existing, existing plus project, cumulative and cumulative plus project scenarios. Calculation of cumulative traffic volumes should consider all traffic-generating developments, both existing and future, that would affect study area roadways and intersections. The analysis should clearly identify the project's contribution to area traffic and degradation of existing and cumulative levels of service.
3. Schematic illustration of traffic conditions including the project site and study area roadways, trip distribution percentages and volumes as well as intersection geometrics, i.e., lane configurations, for the scenarios described above.
4. Mitigation should be identified for any roadway mainline section or intersection with insufficient capacity to maintain an acceptable LOS with the addition of project-related and/or cumulative traffic.

Ms. Patricia McGowan  
March 11, 2003  
Page 2

The project's fair share contribution, and financing, scheduling, implementation responsibilities and lead agency monitoring should also be fully discussed for all proposed mitigation measures.

5. Special attention should be given to the following trip-reducing measures:
- Providing transit information to all future residents, employees and patrons of the proposed project,
  - Coordinating with AC transit to increase transit services by expanding routes and emphasizing express service to regional rail stations, and by providing bus shelters with seating at any future bus pullouts, and
  - Encouraging bicycle- and pedestrian-friendly project design.
6. While the 2000 Highway Capacity Manual (HCM) may not be the preferred level of service methodology, it should still be used for analyzing impacts to state facilities where previous analysis employing alternative methodologies has identified impacts. The residual level of service, assuming mitigation has been implemented, should also be analyzed with HCM 2000.

Please send two copies each of the Traffic Study, including Technical Appendices, and the environmental document, to the address below as soon as they are available.

Patricia Maurice, Associate Transportation Planner  
Office of Transit and Community Planning, Mail Station 6E  
California DOT, District 4  
111 Grand Avenue  
Oakland, CA 94612-3717

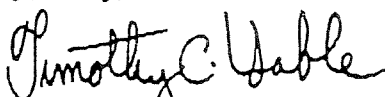
**Right of Way**

Work that encroaches onto the State right-of-way (ROW) requires an encroachment permit that is issued by the Department. To apply, a completed encroachment permit application, environmental documentation, and five (5) sets of plans, clearly indicating State ROW, must be submitted to the address below. Traffic-related mitigation measures will be incorporated into the construction plans during the encroachment permit process.

Sean Nozzari, District Office Chief  
Office of Permits  
California DOT, District 4  
P.O. Box 23660  
Oakland, CA 94623-0660

Please feel free to call or email Patricia Maurice of my staff at (510) 622-1644 or [patricia\\_maurice@dot.ca.gov](mailto:patricia_maurice@dot.ca.gov) with any questions regarding this letter.

Sincerely,



TIMOTHY C. SABLE  
District Branch Chief  
IGR/CEQA

c: Philip Crimmins, State Clearinghouse

03/11/03 15:30 FAX 5102865513

TRANS PLANNING B

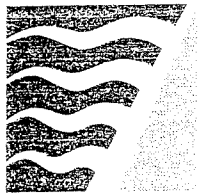
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Ms. Patricia McGowan  
March 11, 2003  
Page 3

bc: T Sable/P Maurice  
J Finney/Chron File

PHAM





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AIR QUALITY  
MANAGEMENT  
DISTRICT

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William C. Norton  
EXECUTIVE OFFICER/APCO

Patricia McGowan  
Planning Division  
City of Oakland  
250 Frank H. Ogawa Plaza, Suite 3330  
Oakland, CA 94612

Subject: Uptown Mixed Use Project

Dear Ms. McGowan:

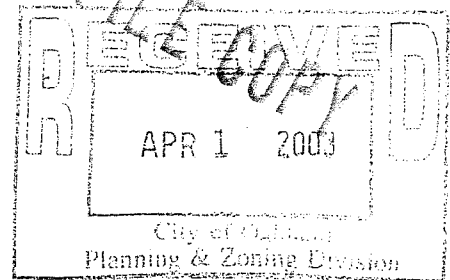
The Bay Area Air Quality Management District (District) has received your agency's Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the Uptown Mixed Use Project. The project proposes the development of residential and commercial uses within a nine-block area of Downtown Oakland. Buildout of the proposed project would include the development of up to 1,700 residential units, 50,000 square feet of commercial space, 2,000 parking spaces and a 25,000 square foot public park.

District staff agree with the NOP's conclusion that the DEIR should analyze the project's potential impacts upon air quality. The Bay Area is currently a non-attainment area for federal and state ambient air quality standards for ground level ozone and state standards for particulate matter. The air quality standards are set at levels to protect public health and welfare. Toxic air contaminants are also an area of serious concern in the Bay Area. Any project which exposes sensitive receptors or the general public to substantial levels of criteria air pollutants or toxic air contaminants would be deemed to have a significant impact and would need to be properly mitigated. As general background for readers, the DEIR should discuss the health effects of air pollution, and it should provide quantitative summaries of the region's attainment status with regard to ambient air quality standards and the contribution of mobile and stationary sources to air pollution emissions.

As part of the Regional Agencies Smart Growth Strategy/Regional Livability Footprint Project, Alameda County residents recently expressed a strong preference for more infill and mixed use development that provides a range of travel options. We believe that through land use decisions that support transit, walking and cycling, Bay Area cities can help to reduce the rate of increase in vehicle miles traveled and improve local and regional air quality. In many ways, this project fulfills these goals by redeveloping a variety of land uses on urban infill sites near transit, and we commend the City for these efforts.

District staff support the smart growth approach the City has taken with this project. As with all major projects, the DEIR should analyze the potential impacts on air quality from project construction and project operation at buildout. If significant air quality impacts are identified, the DEIR must include all feasible

March 26, 2003



mitigation measures to reduce the air quality impacts. We suggest that the City do as much as possible to reduce vehicle trips associated with the project. Motor vehicles constitute the largest source of air pollution in the Bay Area; therefore, we have a strong interest in promoting alternative modes of transportation. The project site is located in a transit-rich part of Oakland within walking distance of a number of AC Transit lines, BART, and the Oakland Greyhound bus depot. The DEIR should identify strategies to strengthen linkages between the project site and these mass transit nodes. In addition, the City can maximize the benefits of the project's location by incorporating as many appropriate transportation demand management (TDM) measures as possible, including: reduced or shared parking; transit subsidies such as the Commuter Check program for employees; and bicycle/pedestrian facilities and access. These measures promote transportation alternatives to the single-occupant vehicle which help to mitigate air quality impacts.


The DEIR should also evaluate potential nuisance impacts, such as odors and dust that could result from project implementation. Odors and dust may not necessarily cause physical harm, but can still be unpleasant and can motivate citizen complaints. While the Initial Study states that the project will not create objectionable odors affecting a substantial number of people, the DEIR should consider the potential nuisance impacts that adjacent land uses might have on future residents and other new sensitive receptors in the project area. Air quality problems arise when sources of air pollution and sensitive receptors are located near one another. Particulate matter (PM) is a pollutant of concern for both nuisance and health-related reasons. PM larger than ten microns is more likely to be a public nuisance than a serious health hazard. On the other hand, research has demonstrated a correlation between high levels of fine PM and increased mortality rates and high incidences of chronic respiratory illness. The DEIR should evaluate potential impacts and propose appropriate mitigation measures.

The Initial Study indicates that parking lots, auto repair facilities and other commercial operations currently exist at the site and may have the potential to release hazardous materials or contaminated soil during the demolition and excavation phase of project construction. The remediation of petroleum-contaminated soil can have air quality ramifications and may be subject to District regulations. Such activities require careful mitigation planning and may require prior approval from the District. For more information on District regulations regarding demolition and soil remediation, please contact our Compliance and Enforcement Division at (415) 749-4762.

For more details on our agency's guidance regarding environmental review, we recommend that the City refer to the *BAAQMD CEQA Guidelines: Assessing the Air Quality Impacts of Projects and Plans (1999)*. The document provides information on best practices for assessing and mitigating air quality impacts related to projects and plans, including construction emissions, land use/design measures, project operations, motor vehicles, nuisance impacts and more. If you do not already have a copy of our guidelines, we recommend that you obtain a copy by calling our Public Information Division at (415) 749-4900 or downloading the online version from the District's web site at <http://www.baaqmd.gov/planning/plntrns/ceqaguid.htm>.

If you have any questions regarding these comments, please contact Suzanne Bourguignon, Environmental Planner, at (415) 749-5093.

Sincerely,

  
William C. Norton  
Executive Officer/APCO

WN:SB

cc: BAAQMD Director Roberta Cooper  
BAAQMD Director Scott Haggerty  
BAAQMD Director Nate Miley  
BAAQMD Director Shelia Young



Received 3-27-03  
FILE COPY

28 March 2003

Patricia McGowan  
City of Oakland Planning Division  
250 Frank H. Ogawa Plaza, Suite 3330  
Oakland, CA 94612

RE: **Scope of EIR for Uptown Mixed-Use Project (ER 03-0007)**

Dear Ms. McGowan:

Oakland Heritage Alliance appreciates the opportunity to address the scope of environmental reviews for the Uptown Project

We believe that the project will have major impacts upon historic or culturally valuable buildings and uses. We believe it is important as well as legally required that the City study the project's impact upon the buildings and areas listed below, and any other adjoining areas that are recognized or potential historic or cultural resources.

In some cases, we urge that alternate schemes be studied. Although full alternatives for the entire project may not be required under the provisions of the focused EIR called for in AB 436, some partial alternatives should be considered in order to have less negative impact upon the historic and cultural resources. Impacts upon historic or cultural resources are not exempt from study under the focused EIR structure, as you know. Parcel indications are from a map entitled *Uptown Residential Project EIR project location and regional location*, LSA/Mclarand, Vasquez & Partners, Inc., 2002. This map shows somewhat different areas than a March 1, 2003 map recently acquired, called *Uptown Program Area Concept Plan/MVE & Partners*, KenKay Associates, Calthorpe Associates.

- 1. Fox Oakland Theater, adjoining parcels 6 and 4:** please consider alternative treatments to allow greater space behind the building and review relative impacts of uses adjoining it. a) There is some question as to whether 40 feet is sufficient, or whether 65 feet or more should be allowed for. Please review the master plan commissioned by the city. b) Is there enough public access parking allowed for theater users of the future? Please study alternate parking schemes. c) Will there be any conflict of use with housing nearby? Please study ways to reduce such conflicts of use. d) Will truck access be unimpeded should the theater come back into use as a live venue? Please provide information on the implications of different width allowances behind the Fox. e) Does planned open space support the entertainment use of the building? Please consider alternate locations for public open spaces.
- 2. Nineteenth-century buildings on San Pablo between William and Thomas Berkley Way, in parcel 1.** Please study alternatives that retain these buildings and the adjoining barbecue restaurant at the corner. These small but interesting buildings can provide visual transi-

tion into the project, integrate it better into existing streetscapes and encourage the creative reuse of historic buildings just outside the project area. New residents will appreciate these remnants of their neighborhood's past, and because of their relatively small footprint, it should be possible to include them in the site plan.

3. **Early twentieth-century auto repair garages on Thomas Berkley Way, parcel 1.** Please consider an alternative scheme that reuses one or more of these buildings to provide architectural interest and variety on the street. Review the historic records on these buildings and interview owners to find out whether there are historic elements or cultural resources that should be studied. (We believe that the Revelli building has been in that family since the 1930s.)
4. **Navlet's building and the adjoining buildings to the west of it, parcel 7.** Please study an alternative or several alternatives to retain the buildings on the north side of Thomas Berkley Way. In particular, study alternative locations for parking, and review impacts on the northern edge of the block upon the adjoining partly residential neighborhoods at 21st Street and north. Consider avoiding the isolation of Navlet's as a last remnant specimen building squeezed between two large new buildings. The relationship between the Navlet's building and its proposed new neighbors has the potential for great awkwardness. Study the possibility of retaining buildings to the west.
5. **Former California Art Supply building.** This building, just across from parcel 5, could be an interesting visual resource and provide some food and beverage, entertainment, or other retail services to patrons of the ice skating rink. Review historic records on the building.
6. **Impacts on buildings across Telegraph from parcels 3 and 4:** This is the building group formerly known as Newberry's and the Oakland Floral Depot, currently home to a small theater and some arts businesses. Streetscape changes and the design of buildings or open areas in parcels 3 and 4 may have visual impacts upon this valuable historic resource and upon public access for its tenants. Please address these issues in the review. A lot of street trees, bulb-outs and other street changes seem to be indicated; the study should address their potential to obscure views of these nationally known art deco terra cotta buildings. Perhaps this block should be treated differently to make best use of the distinctive architecture.
7. **Impacts on buildings across San Pablo from parcels 1 and 2:** Italianate Victorian buildings including the former Friedman's Appliances and adjoining building to its south are valuable historic buildings. How the proposed project relates to this historic streetscape may make a difference in whether San Pablo becomes a viable neighborhood street or remains a dividing thoroughfare. Again, review an alternative that retains extant buildings at the corner of parcel 1, and review the height and bulk and articulation of street facades of proposed new buildings on parcels 1 and 2.
8. **Giant Burger, former Kwik Way, parcel 9.** This example of "googie" architecture is a small and perhaps frivolous-looking building, but it represents a characteristic California style and enriches the area with its drive-in style. Sometimes it seems to be associated with the uptown project as a location for elements jettisoned from the proposed project area. Include a

variant, which retains it. It lends character and is a remnant of the pre-freeway era when Telegraph and San Pablo were the main arteries leading north.

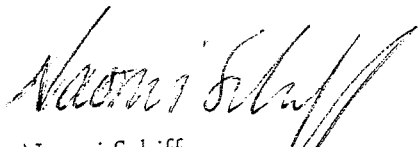
9. **Potential demolition of contributors to potential uptown historic district, at 19th between Telegraph and Broadway, across from the Fox Theater and diagonally across from parcel 4.** Please show site plans without this demolition. This is not within the project area itself; but is across the 19<sup>th</sup> St. intersection from it. Demolition is likely to endanger the possibility of designating an uptown district of historic buildings and contributors, by interrupting the historic building area and rendering it discontinuous. (It would also remove at least seven extant businesses that contribute property tax and business tax and sales tax to the city.) We oppose promoting such a destructive plan.
10. **Impacts upon the long-established Broadway retail frontage.** Study the possibility of reopening the BART access through Sears, as this would help to maintain the connection with this former Capwell's building's main entryways on Broadway. Study how the added retail on Telegraph can be structured to avoid killing businesses on Broadway.
11. **Entertainment district.** Include a section on fostering the uptown entertainment district. Study the relationships between the project and the surrounding venues such as: Oakland Ice Center, Black Box Theater, Sweet's Ballroom, Fox and Paramount Theaters, local nightclubs present and future. Study variants to the project that will enhance this long-planned reawakened entertainment district. Investigate ways to foster connections between the venues and related service businesses. Discuss how to avoid conflicts of use such as have arisen in the south of Market area in San Francisco, and how the parking shortages might be addressed.

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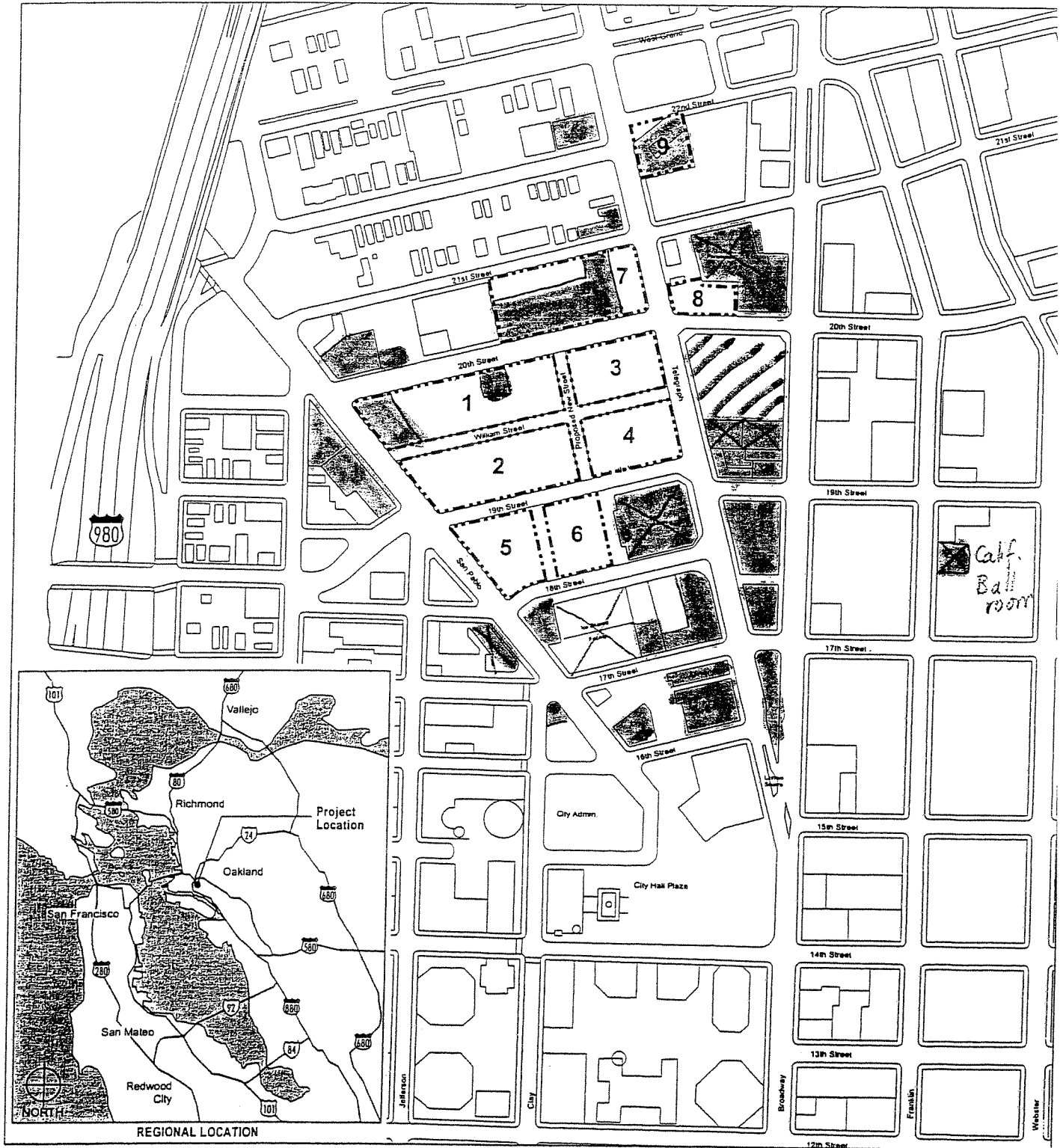
We also have a general question—please explain what the EIR does and does not cover. Maps furnished have shown several different areas and parcels. We assume and request confirmation that for areas within the "Concept Plan" or "Project Location" maps referenced above, any project not specifically studied in this EIR will be further studied on a project-by-project basis as later phases are proposed. Several large buildings are indicated, some of which would displace existing buildings. These must be individually reviewed in later studies, unless fully studied under this EIR.

We appreciate the opportunity to comment and look forward to seeing an informative report.

Sincerely,



Naomi Schiff,  
Vice-President, Preservation Action  
Oakland Heritage Alliance



LSA


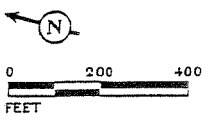

 Approximate locations of some potential or recognized historic or cultural resources in vicinity or on site of project.

FIGURE 1


Uptown Residential Project EIR  
Project Location and Regional Location



LEGEND  
 PROJECT PARCELS

 Existing entertainment venues + ice rink

SOURCE: MCLARAND, VASQUEZ & PARTNERS, INC., 2002.  
I:\IMAGES\GRAPHICS\JOBS\FCR230 UPTOWN\FIGURES\FIG\_1.A1 (02/25/03)

 Historic building/remodeling has damaged value of exterior features

## Community Meeting Announcement

You are invited to learn more about  
the **Oakland Uptown Project**

Forest City Residential West invites you to attend a meeting to hear a presentation about the **Oakland Uptown Project** and participate in a design workshop. The Meeting will be held on:

**Wednesday, March 12, 2003**

**6:30 – 9:00 p.m.**

**Preservation Park – Nile Hall**

**668- 13<sup>th</sup> Street**

**Oakland, CA**

**(Enter from Martin Luther King, Jr. Way- Nile Hall is on your right)**

**Project Location:** Generally between 18<sup>th</sup> and 20<sup>th</sup> Streets and Telegraph and San Pablo Avenues (see map on reverse side).

**Project Description:** The proposed project consists of residential and retail space. It will include approximately 770 apartments, 270 condos, 1000 beds of student housing, and 30,000 s.f. of neighborhood serving retail. The development of the apartments, condos and retail space will proceed concurrently with the development of student housing and the streetscape improvements on Telegraph Avenue. Forest City Residential West will also be working with the City Staff to focus the efforts of the Façade Improvement Program on the businesses in the immediate vicinity of the Project.

**Brownfield Grant:** City Staff will give a report on the status of the Oakland Redevelopment Agency's Application to the U.S. EPA for an Assessment and Clean-Up Grant for the Uptown Project. The Agency's Proposal is available for review at: 250 Frank Ogawa Plaza, Suite 5313, Oakland, CA 94612. For information about the Grant contact: Jens Hillmer, City of Oakland Community and Economic Development Agency, phone (510) 238-3317, e-mail: [jhillmer@oaklandnet.com](mailto:jhillmer@oaklandnet.com).

The City has initiated work to prepare an Environmental Impact Report on this Project. If you have questions about the environmental review process or project status, contact: Patricia McGowan, City of Oakland Planning Division, 250 Frank H. Ogawa Plaza, Suite 3330, Oakland, CA 94612, phone (510) 238-3063, fax (510) 238-6538, e-mail: [pmcgowan@oaklandnet.com](mailto:pmcgowan@oaklandnet.com). Please reference case ER 03-0007 in your response.

**For more information about this project, please contact Susan Smartt at Forest City Residential West by phone at (415)836-5980, e-mail: [ssmartt@forestcity-sf.com](mailto:ssmartt@forestcity-sf.com).**

### SAN FRANCISCO

785 Market Street, 14th Floor  
San Francisco, CA 94103-2003

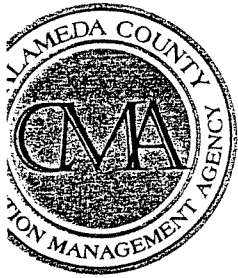
phone (415) 836-5980 • fax (415) 836-5988

### LOS ANGELES

949 South Hope Street, Suite 200  
Los Angeles, CA 90015-1455

phone (213) 488-0010 • fax (213) 488-9308

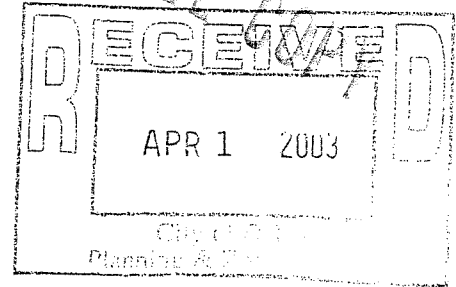




ALAMEDA COUNTY  
CONGESTION MANAGEMENT AGENCY

1333 BROADWAY, SUITE 220 • OAKLAND, CA 94612 • PHONE: (510) 836-2560 • FAX: (510) 836-2185  
E-MAIL: mail@accma.ca.gov • WEB SITE: accma.ca.gov

March 27, 2003



**AC Transit**  
Director  
Patrisa Piras

**Alameda County**  
Supervisors  
Gail Steele  
Scott Haggerty

**City of Alameda**  
Mayor  
Beverly Johnson

**City of Albany**  
Mayor  
Peggy Thomsen

**BART**  
Vice Chairperson  
Director  
Pete Snyder

**City of Berkeley**  
Councilmember  
Kriss Worthington

**City of Dublin**  
Councilmember  
George A. Zika

**City of Emeryville**  
Councilmember  
Nora Davis

**City of Fremont**  
Mayor  
Gus Morrison

**City of Hayward**  
Mayor  
Roberta Cooper

**City of Livermore**  
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Tom Vargas

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Vice Mayor  
Luis Freitas

**City of Oakland**  
Councilmember  
Larry Reid

**City of Piedmont**  
Councilmember  
Jeff Wieler

**City of Pleasanton**  
Chairperson  
Mayor  
Tom Pico

**City of San Leandro**  
Mayor  
Shelia Young

**City of Union City**  
Mayor  
Mark Green

**Executive Director**  
Dennis R. Fay

Ms. Patricia McGowan  
City of Oakland  
Planning Division  
250 Frank Ogawa Plaza, Suite 3330  
Oakland, CA 94612

**SUBJECT:** Comments on the Notice of Preparation for a Environmental Impact Report (EIR) for the Uptown Mixed-Use Project and Notice of Intent to use Assembly Bill 436 for this EIR in the City of Oakland (Case Number ER03-0007)

Dear Ms. McGowan:

Thank you for the opportunity to comment on the Notice of Preparation (NOP) for a Environmental Impact Report (EIR) for the Uptown Mixed-Use Project. The proposed project is located on a nine-block 15-acre site located in the Uptown area of downtown Oakland. Blocks 1 through 6 are bounded by 20<sup>th</sup> Street on the north, Telegraph Avenue on the east, 18<sup>th</sup> Street on the south, and San Pablo Avenue on the west. Blocks 7 and 8 are located on the north side of 20<sup>th</sup> Street, east and west of Telegraph Avenue. Block 9 is located on the southeastern corner of Telegraph Avenue and 22<sup>nd</sup> Street. The project will consist of 1,500 to 1,700 residential units, 40,000 to 50,000 square feet of commercial, retail, and service uses, and a 25,000 square foot park.

The ACCMA respectfully submits the following comments:

- The City of Oakland adopted Resolution No. 69475 on November 19, 1992 establishing guidelines for reviewing the impacts of local land use decisions consistent with the Alameda County Congestion Management Program (CMP). Based on our review of the NOP, the proposed project appears to generate at least 100 p.m. peak hour trips over existing conditions. If this is the case, the CMP Land Use Analysis Program requires the City to conduct a traffic analysis of the project using the Countywide Transportation Demand Model for Year 2005 conditions. Please note the following paragraph as it discusses the responsibility for modeling.
- The Countywide Model is currently updated to Projections 2000 for base years 2005 and 2025. The updated model with Projections 2002 and analysis years 2010 and 2025 will be available on April 9, 2003. It is recommended that this version of the model be used. The CMA Board amended the CMP on March 26<sup>th</sup>, 1998 so that local jurisdictions are now responsible for conducting the model runs themselves or through a consultant. The Countywide model is available to the local jurisdictions for this purpose. The City of Oakland and the ACCMA have signed a Countywide Model Agreement on March 22, 1999. The City would be required to submit a letter agreement to use the model for this project.

Ms. Patricia McGowan

March 27, 2003

Page 2

- Potential impacts of the project on the Metropolitan Transportation System (MTS) need to be addressed. (See 2001 CMP Figures E-2 and E-3 and Figure 2). The DEIR should address all potential impacts of the project on the MTS roadway and transit systems. These include I-880, I-980, SR 24, I-580, Broadway, Brush Street, Castro Street, Grand Avenue, Martin Luther King Jr. Way, San Pablo Avenue, and Telegraph Avenue as well as BART and AC Transit. Potential impacts of the project must be addressed for 2005 (or 2010 depending on which version of the model is used) and 2025 conditions. Please note that the ACCMA does not have a policy for determining a threshold of significance. Rather, it is expected that professional judgment will be applied to determine project level impacts.
- The CMA requests that there be a discussion on the proposed funding sources of the transportation mitigation measures identified in the environmental documentation. The CMP establishes a Capital Improvement Program (See 2001 CMP, Chapter 7) that assigns priorities for funding roadway and transit projects throughout Alameda County. The improvements called for in the DEIR should be consistent with the CMP CIP. Given the limited resources at the state and federal levels, it would be speculative to assume funding of an improvement unless it is consistent with the project funding priorities established in the Capital Improvement Program (CIP) of the CMP, the federal Transportation Improvement Program (TIP), or the adopted Regional Transportation Plan (RTP). Therefore, we are requesting that the environmental documentation include a financial program for all roadway and transit improvements.
- The adequacy of any project mitigation measures should be discussed. On February 25, 1993 the CMA Board adopted three criteria for evaluating the adequacy of DEIR project mitigation measures:
  - Project mitigation measures must be adequate to sustain CMP service standards for roadways and transit;
  - Project mitigation measures must be fully funded to be considered adequate;
  - Project mitigation measures that rely on state or federal funds directed by or influenced by the CMA must be consistent with the project funding priorities established in the Capital Improvement Program (CIP) section of the CMP or the Regional Transportation Plan (RTP).

It would be helpful to indicate in the DEIR the adequacy of proposed mitigation measures relative to these criteria. In particular, the DEIR should detail when proposed roadway or transit route improvements are expected to be completed, how they will be funded, and what would be the effect on LOS if only the funded portions of these projects were assumed to be built prior to project completion.

- Potential impacts of the project on CMP transit levels of service must be analyzed. (See 2001 CMP, Chapter 4). Transit service standards are 15-30 minute headways for bus service and 3.75-15 minute headways for BART during peak hours. The DEIR should address the issue of transit funding as a mitigation measure in the context of the CMA's policies as discussed above.

Ms. Patricia McGowan  
March 27, 2003  
Page 3

- The DEIR should consider demand-related strategies that are designed to reduce the need for new roadway facilities over the long term and to make the most efficient use of existing facilities (see 2001 CMP, Chapter 5). The DEIR could consider the use of TDM measures, in conjunction with roadway and transit improvements, as a means of attaining acceptable levels of service. Whenever possible, mechanisms that encourage ridesharing, flextime, transit, bicycling, telecommuting and other means of reducing peak hour traffic trips should be considered. Street layout and design strategies would foster pedestrian and bicycle connections and transit-friendly site design should also be considered. The Site Design Guidelines Checklist may be useful during the review of the development proposal. A copy of the checklist is enclosed.
- The Alameda Countywide Bicycle Plan was approved by the ACCMA Board on June 28, 2001. The DEIR should consider opportunities to promote countywide bicycle routes identified in the Plan through the project development review process.
- For projects adjacent to state roadway facilities, the analysis should address noise impacts of the project. If the analysis finds an impact, then mitigation measures (i.e., soundwalls) should be incorporated as part of the conditions of approval of the proposed project. It should not be assumed that federal or state funding is available.

Thank you for the opportunity to comment on this Notice of Preparation. Please do not hesitate to contact me at 510/836-2560 ext. 13 if you require additional information.

Sincerely,



Beth Walukas  
Senior Transportation Planner

cc: file: CMP - Environmental Review Opinions - Responses - 2003

Design Strategies Checklist  
for the  
Transportation Demand Management Element  
of the  
Alameda County CMP

The Transportation Demand Management Element included in the 1995 Congestion Management Program requires each jurisdiction to comply with the "Required Program". This requirement can be satisfied in three ways: 1) adoption of "Design Strategies for encouraging alternatives to auto use through local development review" prepared by ABAG and the Bay Area Quality Management District; 2) adoption of new design guidelines that meet the individual needs of the local jurisdictions and the intent of the goals of the TDM Element or 3) evidence that existing policies and programs meet the intent of the goals of the TDM Element.

For those jurisdictions that have chosen to satisfy this requirement by Option 2 or 3 the following checklist has been prepared. In order to insure consistency and equity throughout the County, this checklist identifies the components of a design strategy that should be included in a local program to meet the minimum CMP conformity requirements. The required components are highlighted in bold type and are shown at the beginning of each section. A jurisdiction must answer Yes to each of the required components to be considered consistent with the CMP. Each jurisdiction will be asked to annually certify that it is complying with the TDM Element. Local jurisdictions will not be asked to submit the back-up information to the CMA justifying its response; however it should be available at the request of the public or neighboring jurisdictions.

Questions regarding optional program components are also included. You are encouraged but not required to answer these questions. ACTAC and the TDM Task Force felt that it might be useful to include additional strategies that could be considered for implementation by each jurisdiction.

## CHECKLIST

### **Bicycle Facilities**

**Goal:** To develop and implement design strategies that foster the development of a countywide bicycle program that incorporates a wide range of bicycle facilities to reduce vehicle trips and promote bicycle use for commuting, shopping and school activities. (Note: examples of facilities are bike paths, lanes or racks.)

Local Responsibilities:

→ 1a. In order to achieve the above goal, does your jurisdiction have design strategies or adopted policies that include the following:

→ 1a.1 that provide a system of bicycle facilities that connect residential and/or non-residential development to other major activity centers?

Yes No

1a.2 bicycle facilities that provide access to transit?

Yes No

1a.3 that provide for construction of bicycle facilities needed to fill gaps, (i.e. gap closure), not provided through the development review process?

Yes No

1a.4 that consider bicycle safety such as safe crossing of busy arterials or along bike trails?

Yes No

1a.5 that provide for bicycle storage and bicycle parking for (A) multi-family residential and/or (B) non-residential developments?

Yes No

→ 1b. How does your jurisdiction implement these strategies? Please identify.

Zoning ordinance

Design Review

Standard Conditions of Approval

Capital Improvement Program

Specific Plan

Other

**Pedestrian Facilities**

Goal: To develop and implement design strategies that reduce vehicle trips and foster walking for commuting, shopping and school activities.

Local Responsibilities

→ 2a. In order to achieve the above goal, does your jurisdiction have design strategies or adopted policies that incorporate the following:

→ 2a.1 that provide reasonably direct, convenient, accessible and safe pedestrian connections to major activity centers, transit stops or hubs parks/open space and other pedestrian facilities?

Yes No

→2a.2 that provide for construction of pedestrian paths needed to fill gaps, ( i.e. gap closure), not provided through the development process?

Yes No

2a.3 that include safety elements such as convenient crossing at arterials?

Yes No

2a.4 that provide for amenities such as lighting, street trees, trash receptacles that promote walking?

Yes No

2a.5 that encourage uses on the first floor that are pedestrian oriented, entrances that are conveniently accessible from the sidewalk or transit stops or other strategies that promote pedestrian activities in commercial areas?

Yes No

→2b. How does your jurisdiction implement these strategies? Please identify.

Zoning ordinance

Design Review, such as ADA Accessibility Design Standards

Standard Conditions of Approval

Capital Improvement Program

Specific Plan

Other

## Transit

Goal: To develop and implement design strategies in cooperation with the appropriate transit agencies that reduce vehicle trips and foster the use of transit for commuting, shopping and school activities.

### Local Responsibilities

3a. In order to achieve the above goal, does your jurisdiction have design strategies or adopted policies that include the following:

→3a.1 provide for the location of transit stops that minimize access time, facilitate intermodal transfers, and promote reasonably direct, accessible, convenient and safe connections to residential uses and major activity centers?

Yes No

→3a.2 provide for transit stops that have shelters or benches, trash receptacles, street trees or other street furniture that promote transit use?

Yes No

→3a.3 that include a process for including transit operators in development review?

Yes No

3a.4 provide for directional signage for transit stations and/or stops?

Yes No

3a.5 that include specifications for pavement width, bus pads or pavement structure, length of bus stops, and turning radii that accommodates bus transit?

Yes No

→3.b How does your jurisdiction implement these strategies? Please identify.

Zoning ordinance

Design Review

Standard Conditions of Approval

Capital Improvement Program

Specific Plan

Other

### Carpools and Vanpools

Goal: To develop and implement design strategies that reduce the overall number of vehicle trips and foster carpool and vanpool use.

Local Responsibilities:

4a. In order to achieve the above goal, does your jurisdiction have design strategies or adopted policies that include the following:

4a.1 For publicly owned parking garages or lots, are there preferential parking spaces and/or charges for carpools or vanpools?

Yes No

4a.2 that provide for convenient or preferential parking for carpools and vanpools in non-residential developments?

Yes No

4.b How does your jurisdiction implement these strategies? Please identify.

- Zoning ordinance
- Design Review
- Standard Conditions of Approval
- Capital Improvement Program
- Specific Plan
- Other

### **Park and Ride**

Goal: To develop design strategies that reduce the overall number of vehicle trips and provide park and ride lots at strategic locations.

Local Responsibilities:

5a. In order to achieve the above goal, does your jurisdiction have design strategies or adopted policies that include the following:

5a.1 promote park and ride lots that are located near freeways or major transit hubs?

Yes No

5a.2 a process that provides input to Caltrans to insure HOV by-pass at metered freeway ramps?

Yes No

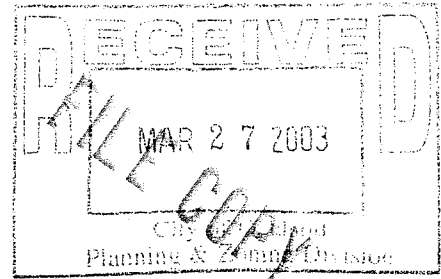
5b. How does your jurisdiction implement these strategies? Please identify.

- Zoning ordinance
- Design Review
- Standard Conditions of Approval
- Capital Improvement Program
- Specific Plan
- Other



Christopher Pederson  
201 Laguna St. #9  
San Francisco, CA 94102

March 25, 2003



Patricia McGowan  
City of Oakland Planning Division  
250 Frank H. Ogawa Plaza, Suite 3330  
Oakland, CA 94612

Re: EIR Scoping Comments on Uptown Mixed-Use Project

Dear Ms. McGowan:

The proposed Uptown Mixed-Use Project has the potential to revitalize downtown Oakland and benefit the environment by providing new housing in a manner that limits sprawl and fosters environmentally beneficial modes of transportation such as walking, bicycling, and riding public transit. It also has the potential to be a tragically wasted opportunity if it fails to take full advantage of the site's proximity to a major employment center and the highest concentration of public transit in the East Bay.

Because the Uptown Project is in one of the best locations in the entire Bay Area for creating a significant amount of new housing close to major employment centers and to a wealth of public transit, the stated purposes of the project should include:

- maximizing the amount of housing created for all income levels,
- maximizing the percentage of trips taken by modes other than the automobile, and
- minimizing the dependence of residents, workers, and shoppers in the area on the automobile.

To minimize the potential adverse effects of the project on energy consumption, air pollution, and greenhouse gas emissions and to maximize ridership on public transit, the EIR should include consideration of an aggressive strategy to minimize automobile ownership and use. Examples of components of such a strategy that the EIR should evaluate include:

- separate the cost of parking from the cost of housing and of leasing commercial space;
- eliminate any minimum parking requirements, especially for types of housing that typically have below average automobile ownership rates, including affordable housing, student housing, and rental housing;
- impose a transit impact fee to help upgrade transit facilities and services in the vicinity of the project;
- car sharing programs;

- provide comprehensive and up-to-date transit information to all residents and workers;
- require shared parking by different uses;
- design building to encourage walking and to create an attractive pedestrian environment; and
- provide attractive bus shelters and prominent, attractive pedestrian routes to City Center and to BART stations.

When evaluating the parking that is proposed to be included in the project, evaluate how the provision of parking affects the bulk of buildings, the pedestrian experience, and the amount of housing, retail or office space that can be provided. Also evaluate how parking supply affects individuals' transportation decisions, including whether abundant parking would tend to encourage residents to work and shop at locations other than downtown Oakland.

The EIR should not characterize any potential parking "shortfall" as in itself an adverse effect on the environment. Although parking supply can have an indirect effect on the environment by affecting people's transportation decisions, parking supply in and of itself is a social effect rather than a direct effect on the physical environment. In this respect, the EIR should take the approach that San Francisco takes. Enclosed is an excerpt from a recent mitigated negative declaration prepared for a large residential project in the Rincon Hill neighborhood close to downtown San Francisco. The "neg dec" points out that parking supply is not a direct effect on the environment and describes how a parking "shortage" can have beneficial effects by reducing the amount of driving that occurs. The Uptown area, because of its proximity to employment and public transit, shares many of the attributes of the Rincon Hill project, so it would be appropriate for Oakland to analyze parking impacts in a similar manner.

Thank you for your consideration of these comments.

Sincerely,

  
Christopher Pederson

*Enclosure*

*Enclosure to letter from Christopher Pederson.*

## **EXHIBIT A**

**APPEAL: Case No. 2002.0446E: 40 - 50 Lansing Street**

Preliminary Mitigated Negative Declaration published on October 19, 2002

## **PLANNING DEPARTMENT RESPONSE TO CONCERNS**

### **INTRODUCTION**

An environmental evaluation application (2002.0446E) was filed on behalf of Lambert Development on April 25, 2002, for a proposal at 40-50 Lansing Street on Assessor's Block 3749, Lot 011. The proposed project involves the construction of a 155,000 gsf, 8-story residential building containing 81 dwelling units with 81 off-street parking spaces on 2 below-grade garage levels and the demolition of the existing 56,250 gsf, 3-story light-industrial building. The site is located at 40-50 Lansing Street, in the Rincon Hill area. The 20,205 sf site fronts on Guy Place and Lansing Street, between First and Second Streets. Two on-street loading spaces are planned; one on Guy Place and one on Lansing Street. The site is within a RC-4 (Residential Commercial Combined, High Density) zoning district, the Rincon Hill Special Use Subdistrict and an 84-X height and bulk district. The project would require variances from the following provisions of the Planning Code: freight loading; dwelling unit exposure; and from the Rincon Hill Special Use District, a Conditional Use authorization for 1) construction of a structure in an R District over 40 feet tall and 2) allowing lot coverage greater than 80 percent on a sloping lot.

A Preliminary Mitigated Negative Declaration (PMND) analyzing the potential environmental effects of the proposed project was published on October 19, 2002. An appeal of the PMND was filed on November 08, 2002, by Clifford Roth, Paula Roth, Patrick M. Malone, Kenneth Morrison, and Denyse Gross. The concerns listed below are summarized or cited from the appeal letter, a copy of which is included within this appeal packet.

### **CONCERNS RAISED AND PLANNING DEPARTMENT RESPONSES**

Concerns raised in the appeal letter are cited below, followed by the Department's responses. Where possible, concerns or similar topics have been combined.

#### **Concern #1 - "Construction Traffic"**

"The Construction itself would have a significant effect on the environment and will result in consistent and regular blocking of the one street that provides the only access to the neighborhood. For at least nine of the 14-months, in which the project will optimistically be completed, this small alley-like street will be subject to heavy truck traffic, which will be queued up and down the alley-like Guy and Lansing Streets. Unlike the assertion in the PNMD, traffic will not be able to "maneuver around queued trucks." There is no room to do so. Further, it is likely that both sides of the "U" will be simultaneously blocked with trucks and construction equipment for a majority of the duration of the project. This will result in a significant effect on neighbors and others; due not only to the impossibility of meaningful ingress and egress to their properties but because of extremely unsafe conditions that will be caused by the construction project.

This problem has already been encountered in conjunction with the construction across the street from the Guy/Lansing neighborhood on First Street and related construction on other nearby streets. Construction crews have in the recent past closed or blocked Guy and Lansing Streets completely and sent traffic dangerously careening around the tight turns of the U-shaped streets in the wrong direction. A project of this size, right in the middle of the "U," can only exacerbate the danger of this situation."

Exhibit A-1

*(See next page)*

The PMND does mention the Sailor's Union Hall in the context of the varied architectural style of the vicinity on p. 13 of the PMND. The PMND also identifies that the proposed project would be taller than the adjacent buildings in the project area, however, it would not have a substantial, demonstrable negative aesthetic effect.

#### **Concern #5 – Parking**

“The narrow U-shaped street is already significantly impacted by traffic and illegal parking. The PNMD does not adequately address these problems. Although numerous attempts by residents have been made, the police powers in this city refuse to adequately enforce illegal parking in the Guy-Lansing neighborhood, by towing illegally parked vehicles. The effect of having so many additional residences and the incumbent significant competition for and reduction of parking spaces will worsen the illegal parking problems.”

“Moreover, the incredible and unacceptable inconvenience for residents of the neighborhood of both increased traffic and illegal parking is significant.”

#### **Response #5**

As discussed in the PMND, the project will be providing 83 off-street parking spaces as a part of the project. The projected unmet demand for parking would be about 26 spaces.

Under California Public Resources Code Section 21060.5, “environment” means “the physical conditions which exist within the area which will be affected by a proposed project, including land, air, water, minerals, flora, fauna, noise, and objects of historic or aesthetic significance.” Parking supply is not considered to be a part of the permanent physical environment in San Francisco. Parking conditions are not a static condition, as parking supply/demand varies from day to night, from day to day, month to month, etc. Hence, the availability of parking spaces (or lack thereof) is not a permanent physical condition, but changes over time as people change their modes and patterns of travel. Therefore, parking deficits are considered to be social effects, rather than impacts on the physical environment as defined by CEQA.

Parking deficits may be associated with secondary physical environmental impacts, such as increased traffic congestion at intersections, air quality, or noise effects caused by congestion. However, as noted above, in the experience of San Francisco transportation planners, the absence of a ready supply of parking spaces combined with available alternatives to auto travel (e.g., transit service, taxis, bicycles or travel by foot) and relatively dense patterns of urban development, may induce drivers to seek and find alternative parking facilities, shift to other modes of travel, or change their overall travel habits. Any such resulting shifts to transit service, in particular, would also be in keeping with the City's “Transit First” policy.

Additionally, regarding potential secondary effects, cars circling and looking for a parking space in areas of limited parking supply is typically a temporary condition, often offset by a reduction in vehicle trips due to others who are aware of constrained parking conditions in a given area. Hence, any secondary environmental impacts which may result from a shortfall in parking in the vicinity of the proposed project would likely be minor.

Thus, a parking shortage is not considered to be a permanent condition and is also not considered to be a physical environmental impact even though it is understood to be an inconvenience to drivers. The creation of, or an increase in, parking demand resulting from a proposed project that cannot be met by existing or proposed parking facilities would not itself be considered a significant environmental effect.

under CEQA. In the absence of such physical environmental impacts, CEQA does not require environmental documents to propose mitigation measures solely because a project is expected to generate parking shortfalls.

Recognizing the potential traffic impedance of illegally double-parked vehicles on Guy Place or Lansing Street, the Improvement Measure below has been incorporated in the amended PMND (page 36):

### **IM-2. Double-Parking**

In order to further avoid illegal double-parking in front of the project, the project sponsor shall notify the tenants and owners in the building that double-parking on Guy Place or Lansing Street, for deliveries to any project tenant, is prohibited. It is the responsibility of the Department of Parking and Traffic (DPT) to enforce parking violations. The project sponsor is not responsible for parking violations. Restriction from double-parking would be added as a written addendum to the tenant leases. The project sponsor will be required to verify that this restriction is communicated to all potential delivery or suppliers, with additional instructions for these suppliers to use the Guy Place on-street loading space in the standard business communications of tenants and owners. The project sponsor shall post a clearly marked sign instructing patrons that double-parking is expressly forbidden on Guy Place or Lansing Street.

### **Concern #6 – Life Safety**

“The most significant effect of illegal parking is the impossibility for large or small emergency vehicles to get full access to the Guy-Lansing neighborhood, with extremely dangerous and potentially deadly consequences. Thus, the proposed project could significantly interfere with emergency response plans and produces a significant fire hazard. It is incumbent on the Department to fully examine these significant effects of the proposed development.”

### **Response #6**

As stated on page 28 of the PMND, “San Francisco ensures fire safety primarily through provisions of the Building Code and the Fire Code. Existing and new buildings are required to meet standards contained in these codes. In addition, the final building plans for any new residential project greater than two units are reviewed by the San Francisco Fire Department (as well as the Department of Building Inspection), in order to ensure conformance with these provisions. The proposed project would conform to these standards, which (depending on the building type) may also include development of an emergency procedure manual and an exit drill plan. In this way, potential fire hazards (including those associated with hydrant water pressure and emergency access) would be mitigated during the permit review process.”

### **Concern #7 – Loading**

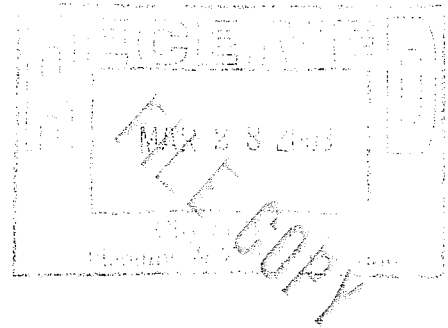
“Finally, the estimate of only four extra deliveries per day by private delivery companies is laughable. In appellants’ building on only 33 units, there are many more deliveries than that.”

### **Response #7**

Average and peak hour (10:00 a.m. to 1:00 p.m.) loading demand were calculated using calculations set forth in the *Interim Transportation Impact Analysis Guidelines for Environmental Review* (January 2000). The Daily Truck Trip Generation of *Appendix H* of the *Guidelines* gives four service trips per day.

March 28, 2003

Patricia McGowan  
City of Oakland Planning Division  
250 Frank H. Ogawa Plaza, Suite 3330  
Oakland, CA 94612



Re: Scope of EIR for Uptown Mixed Use Project (ER 03-0007)

Dear Ms. McGowan:

The following comments are primarily directed to the project as presented at the public meeting on March 12 at which the "Concept Plan" was presented. It was emphatically stated, more than once, that the project was limited to parcels #1 through #7. However, there could be some confusion because parcels #8 and #9 are also delineated on the site plan attached to the NOP.

This project can light the fire for a 24-hour downtown. But only if the plan for the site recognizes that the area along Telegraph is designated an entertainment district. It needs to be so configured that residents have quiet enjoyment of their homes even when Telegraph lights up. With great resources like the Fox and the Floral Depot (a future blues club?) the site plan must encourage and enhance the district's development as a regional entertainment destination.

An alternative needs to be studied that recognizes this housing project is to be built in an entertainment district. AB 436 does not preclude the study of alternatives and, in this case, to gain public approval, some rather simple changes to the plan need to be evaluated. One of the most common conflicts the planning commission deals with occurs when restaurants or bars in residential neighborhoods want to add live entertainment. This district is where they should be welcomed. The following alternative does not materially change the number of housing units or amount of open space but relocates it so as to avoid such conflicts.

To avoid a thousand words, I have shown my proposed changes on an attached copy of the UPTOWN PROGRAM AREA CONCEPT PLAN.

- Ⓐ Public open space. Think Zocalo as in Oaxaca. Okay, there is not a cathedral at one end, only a Hindu Temple, with Islamic overtones, the FOX. This would be a great outdoor room because besides the FOX to the south, the Floral Depot is to the east, attractive new student housing and Navlet's to the north, and on the west, there is a wide pedestrian path in front of cafes, restaurants, record and book stores and a market hall in the new retail/loft building. This space would allow people to sit and have a cup of coffee with the vista of extraordinary buildings like the Floral Depot and the Fox. It is a festival space where musicians could perform and students hang out. People parking in the garage to the north would walk through it to see performances at the Fox. And those huge crowds that now go to the Paramount would have someplace to go before and after the show.

A competition for the park's design would create wide public interest in the district.

**B** These buildings stand between the Zocalo/Entertainment District and the residential area. They create a buffer between the housing and livelier activities along Telegraph. They should be as high, or better still, higher than the residential buildings.

The ground floor would have the kind of businesses that support nightlife as well as neighborhood needs. There could be family housing on the west side of the building but on the Zocalo side, the floors above the retail should be flexible loft spaces to accommodate uses such as dance studios, health clubs professional offices or even residents who enjoy the excitement of lively street life at night.

Development of this whole uptown area would be greatly accelerated if these two blocks with the park and these buildings would be built first. Presently the blight of these two blocks discourages investment in properties like the city owned Fox.

**C** This housing replaces the park that was proposed for this site. The rationale for this location of the park was to create a park both for the resident's use and the general public. In my opinion it will serve neither. It would not be a pleasant sunny space in the day since it is located on the north side surrounded on east, south & west by 6/7 story buildings. It will not feel safe at night because there is little foot traffic on 20<sup>th</sup> Street. Which is also why it does not make sense as a "public" space. Where would the "public" come from? It has the feel of a gated park without a gate.

As the housing appears to be designed around interior courts, there will be private outdoor space for the residents. What is needed is a real public space that will be used by the public as well as the residents, day and night. A space that gives this entertainment district its sense of place just as Frank Ogawa Plaza does for civic life and City Center does for offices, hence the Zocalo proposal.

**D** Interesting cities have a diversity of old and new— history is woven into their fabric. Unfortunately, the project area itself has few historic structures. Their rarity means it is of even greater importance to preserve them. Incorporating historic properties into a project is one way to keep a project from looking like a project.

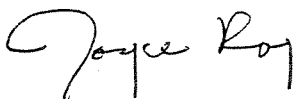
Navlet's would make a great small theatre.

The Queen Anne storefronts at San Pablo & 20<sup>th</sup> Street would, with some restoration, be a distinctive restaurant or/and the corner pub.

The former Kwik Way, now Giant Burger, in parcel #9 is an excellent example of the 50/60s style known as Googie architecture. It would be a great contributor to the entertainment district and appreciated by the nearby students.

Thanks for the opportunity to comment. Hopefully these suggestions will contribute to the success of the Uptown Development.

Sincerely,



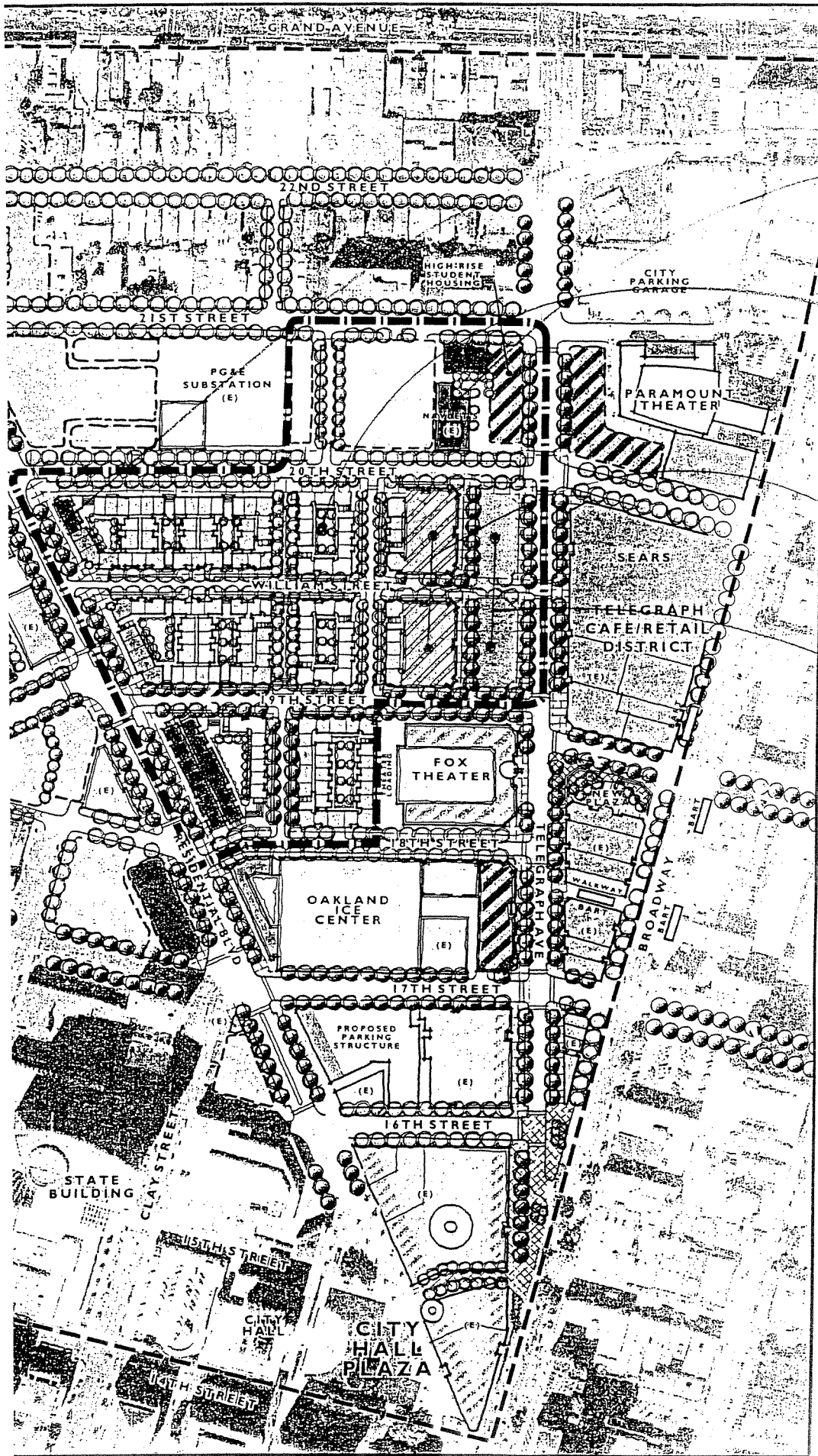
**JOYCE ROY**

VOX: (510) 655-7508

258 MATHER STREET, OAKLAND, CALIFORNIA 94611

FAX: (510) 594-0963

EMAIL: joyceroy@earthlink.net



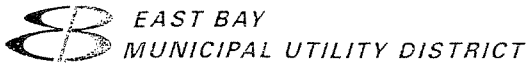
D

C

B

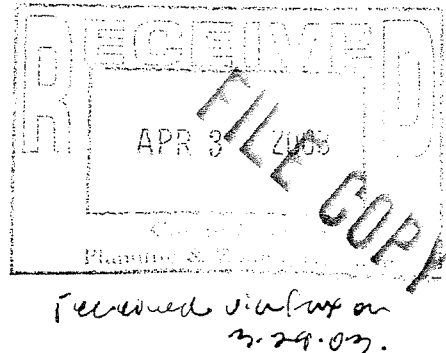
A





March 28, 2003

Patricia McGowan, Planner IV  
City of Oakland Planning Division  
250 Frank H. Ogawa Plaza, Suite 3330  
Oakland, CA 94612



Dear Ms. McGowan:

Re: Notice of Preparation/Environmental Impact Report - Uptown Mixed-Use Project

East Bay Municipal Utility District (EBMUD) appreciates this opportunity to comment on the Notice of Preparation of an Environmental Impact Report (EIR) for the Uptown Mixed-Use Project. EBMUD acknowledges the Notice of Intent to use California Public Resources Code Section 21159.25 (Assembly Bill AB 436) for this Focused EIR in Oakland. EBMUD has the following comments regarding water service, water conservation, water recycling and wastewater.

#### WATER SERVICE

Pursuant to Sections 10910-10915 of the California Water Code, the proposed project meets the threshold requirements for an assessment of water supply because the entire scope of this mixed-use project would demand an amount of water greater than the amount of water required by a 500 dwelling-unit project. The City of Oakland (City) should contact the District and request a Water Supply Assessment (WSA). Please be aware that the WSA can take up to 90 days to complete from the day on which the request is received.

The proposed project is located within EBMUD's Central Pressure Zone (G0A) that provides water service to customers within an elevation range of 0 to 100 feet. EBMUD owns and operates distribution pipelines in all of the streets within the project area (see enclosed drawing). These pipelines are necessary to provide continuous service to EBMUD customers in the area. If modifications to the streets occur that require pipeline relocation, the relocation costs would be at the project sponsor's expense. Main extensions and/or offsite improvements, also at the project sponsor's expense, may be required depending on metering requirements by EBMUD and fire flow requirements set by the local fire department. When the development plans are finalized, the project sponsor should contact the EBMUD's New Business Office and request a water service estimate to determine costs, conditions and options for providing water service to the proposed project. Engineering and installation of new and relocated mains often require substantial lead time, which should be provided for in the project sponsor's development schedule.

EBMUD will not install pipeline in contaminated soil that must be handled as a hazardous waste, or that may be hazardous to the health and safety of construction or maintenance personnel wearing Level D personal protective equipment. EBMUD will require a legally sufficient, complete and specific written remedial plan establishing the methodology, planning and design of all necessary systems for the removal, treatment, and disposal of all identified soil and/or water contaminants. EBMUD will not design the installation of pipelines until such time as remediation plans are received and reviewed and will not install pipelines until remediation has been carried out.

## **WATER CONSERVATION**

Due to EBMUD's limited water supply, all customers should plan for shortages in time of drought. The Uptown Mixed-Use Project presents an opportunity to incorporate many water conservation measures to help mitigate the impacts of additional water demands on EBMUD's finite water supply. EBMUD requests that water conservation measures for both internal and external use be incorporated in the design and construction of the proposed project. EBMUD staff would appreciate the opportunity to meet with the City and Port of Oakland to review water conservation programs and best management practices applicable to the proposed project.

The EIR should provide a detailed description of practices consistent with the City water use efficiency ordinances, Oakland Sustainability Program, State law, and EBMUD service regulations. The proposed project must conform with the Oakland Water Efficient Landscape Requirements, Article 10, Chapter 7 of the Municipal Code, and if not enforced by the City, the project would fall under the jurisdiction of Assembly Bill 325 Statewide Model Water Efficient Landscape Ordinance (Division 2, Title 23, California Code of Regulations, Chapter 2.7, Sections 490-495).

## **WASTEWATER**

EBMUD's Main Wastewater Treatment Plant is anticipated to have adequate dry weather capacity to treat the proposed wastewater flow from this project, provided this wastewater meets the standards of EBMUD's Source Control Division. However, the City of Oakland's Infiltration/Inflow (I/I) Correction Program set a maximum allowable peak wastewater flow from each subbasin within the City and EBMUD agreed to design and construct wet weather conveyance and treatment facilities to accommodate these flows. EBMUD prohibits discharge of wastewater flows above the allocated peak flow for a subbasin because conveyance and treatment capacity for wet weather flows may be adversely impacted by flows above this agreed limit. The project sponsor for this project needs to confirm with the City of Oakland Public Works Department that there is available capacity within the subbasin flow allocation and that it has not been allocated to other developments. The projected peak wet weather wastewater flows from this project need to be determined to assess the available capacity within the subbasin and confirmation included in the EIR. Suggested language to include in the EIR is as follows: "The

Ms. Patricia McGowan  
March 28, 2003  
Page 3

City of Oakland Public Works Department has confirmed that there is available wastewater capacity within Subbasin (*insert subbasin number here*) for this project."

In general, the project should address the replacement or rehabilitation of the existing sanitary sewer collection system to prevent an increase in I/I. Please include a provision to control or reduce the amount of I/I in the environmental documentation for this project. The main concern is the increase in total wet weather flows, which could have an adverse impact if the flows are greater than the maximum allowable flows from this subbasin.

## **WATER RECYCLING**

EBMUD's Policy 73 requires that customers use non-potable water for non-domestic purposes when it is of adequate quality and quantity, available at reasonable cost, not detrimental to public health and not injurious to plant life, fish and wildlife to offset demand on EBMUD's limited potable water supply. In January 2002, the City of Oakland adopted a dual plumbing ordinance, requiring new developments within the City to use recycled water provided by EBMUD and install dual plumbing systems for appropriate recycled water uses if recycled water will be available. The Uptown Mixed-Use Project is located within the service area boundary of EBMUD's East Bayshore Recycled Water Project. EBMUD anticipates recycled water delivery to the project area within the next ten years and recommends that the project sponsor install dual plumbing systems for use of recycled water at the public park and for other landscape irrigation purposes throughout the project area.

If you have any questions, please contact Marie Valmores, Senior Civil Engineer, Water Service Planning at (510) 287-1084.

Sincerely,



WILLIAM R. KIRKPATRICK  
Manager of Water Distribution Planning

WRK:AMV:sb  
sb03\_094.doc

Enclosure

cc: Forest City Residential West  
Susan Smartt, Vice President  
785 Market Street, 14th Floor  
San Francisco, CA 94103

Table 4a: 2000 CUMULATIVE OAKLAND LAND USE DATA (WITH 2000 CENSUS) - DOWNTOWN OAKLAND / OAKLAND CENTRAL TAZS - JUNE 2003

TAZ	CENSUS TRACT	EMPLYD RSDNTS	HOUSE HOLDS	HH POP	GROUP POP	TOT POP	MFG JOBS	OTHER JOBS	RETAIL JOBS	SERVICE JOBS	TOTAL JOBS	MEAN HH INCOME
<b>Kaiser Center Area</b>												
74	402900	32	44	76	0	76	97	690	135	1722	2644	39300
501	402900	1	2	2	0	2	269	2067	100	2134	4570	39300
502	402900	2	1	4	0	4	30	200	60	353	643	39300
503	402900	0	1	1	0	1	540	3444	147	3574	7705	39300
517	403400	2010	2336	3477	67	3544	100	804	85	542	1531	58000
<b>Subtotal</b>		<b>2045</b>	<b>2384</b>	<b>3560</b>	<b>67</b>	<b>3627</b>	<b>1036</b>	<b>7205</b>	<b>527</b>	<b>8325</b>	<b>17093</b>	
<b>Uptown</b>												
70	402800	14	26	47	5	52	0	0	75	84	159	19300
483	402800	170	429	589	32	621	43	103	17	393	556	19300
484	402800	0	0	0	0	0	36	365	70	735	1206	0
485	402800	0	0	0	0	0	0	122	260	100	482	0
<b>Subtotal</b>		<b>184</b>	<b>455</b>	<b>636</b>	<b>37</b>	<b>673</b>	<b>79</b>	<b>590</b>	<b>422</b>	<b>1312</b>	<b>2403</b>	
<b>City Center/Government Center</b>												
803	402700	184	197	582	0	582	0	136	33	84	253	33100
486	402800	19	45	67	0	67	5	567	35	464	1071	19300
487	402800	0	1	1	0	1	0	725	0	50	775	19300
488	402800	319	719	911	258	1169	20	1560	40	160	1780	19300
499	402900	485	823	1163	0	1163	58	603	135	332	1128	39300
500	402900	19	23	28	17	45	133	1090	239	1034	2496	39300
497	403000	118	213	306	0	306	165	1408	267	1525	3365	33100
498	403000	335	482	869	0	869	438	112	197	136	883	33100
489	403100	0	0	0	0	0	0	2500	0	40	2540	0
490	403100	0	0	0	0	0	1505	1883	324	3048	6760	0
<b>Subtotal</b>		<b>1479</b>	<b>2503</b>	<b>3927</b>	<b>275</b>	<b>4202</b>	<b>2324</b>	<b>10584</b>	<b>1270</b>	<b>6873</b>	<b>21051</b>	
<b>Old Oakland</b>												
802	402600	133	156	420	0	420	10	55	0	103	168	31000
71	403100	33	78	132	1	133	71	54	234	901	1260	19700
491	403100	92	149	367	0	367	202	71	92	77	442	19700
492	403100	240	177	288	666	954	0	436	26	97	559	19700
493	403100	49	40	53	140	193	70	1840	26	117	2053	19700
<b>Subtotal</b>		<b>547</b>	<b>600</b>	<b>1260</b>	<b>807</b>	<b>2067</b>	<b>353</b>	<b>2456</b>	<b>378</b>	<b>1295</b>	<b>4482</b>	
<b>Chinatown</b>												
73	403000	54	43	140	0	140	449	132	475	142	1198	33100
494	403000	55	70	131	10	141	176	78	192	192	638	33100
495	403000	68	60	176	0	176	519	132	191	92	934	33100
496	403000	425	564	1102	0	1102	178	881	475	968	2502	33100
<b>Subtotal</b>		<b>602</b>	<b>737</b>	<b>1549</b>	<b>10</b>	<b>1559</b>	<b>1322</b>	<b>1223</b>	<b>1333</b>	<b>1394</b>	<b>5272</b>	
<b>County Bldgs/MetroCenter/Laney</b>												
519	403300	460	334	843	0	843	41	605	51	255	952	45800
520	403300	378	245	691	2	693	26	1665	51	212	1954	45800
521	403300	254	141	425	41	466	0	1200	80	172	1452	45800
518	403400	87	89	153	0	153	44	2167	33	231	2475	58000
536	406000	0	0	0	1	1	0	738	0	0	738	0
<b>Subtotal</b>		<b>1179</b>	<b>809</b>	<b>2112</b>	<b>44</b>	<b>2156</b>	<b>111</b>	<b>6375</b>	<b>215</b>	<b>870</b>	<b>7571</b>	
<b>Jack London District</b>												
800	402000	11	6	15	0	15	81	47	14	12	154	80900
801	402000	6	3	10	0	10	0	3	0	4	7	80900
72	403200	0	0	0	0	0	0	567	218	181	966	0
736	403200	2	1	2	0	2	0	72	524	181	777	50600
767	403200	0	0	0	0	0	0	115	324	310	749	0
768	403200	8	8	11	0	11	64	498	98	406	1066	50600
795	403200	1	1	1	0	1	70	713	110	223	1116	50600
796	403200	34	36	48	1	49	134	627	69	254	1084	50600
87	403300	0	0	0	0	0	72	294	50	43	459	0
797	403300	1	1	2	1	3	71	23	189	24	307	45800
798	403300	0	0	0	0	0	231	54	29	32	346	45800
799	403300	212	192	305	0	305	0	216	18	18	252	45800
<b>Subtotal</b>		<b>275</b>	<b>248</b>	<b>394</b>	<b>2</b>	<b>396</b>	<b>723</b>	<b>3229</b>	<b>1643</b>	<b>1688</b>	<b>7283</b>	
<b>DOWNTOWN SUBTOTAL</b>		<b>6311</b>	<b>7736</b>	<b>13438</b>	<b>1242</b>	<b>14680</b>	<b>5948</b>	<b>31662</b>	<b>5788</b>	<b>21757</b>	<b>65155</b>	
<b>Valdez Area/Summit Area/So. Auto Row</b>												
56	401300	213	240	431	209	640	6	450	240	1276	1972	26500
467	401300	71	64	107	107	214	0	320	280	2136	2736	26500
468	401300	190	275	564	9	573	7	160	30	320	517	26500

TAZ	CENSUS TRACT	EMPLYD RSDNTS	HOUSE HOLDS	HH POP	GROUP POP	TOT POP	MFG JOBS	OTHER JOBS	RETAIL JOBS	SERVICE JOBS	TOTAL JOBS	MEAN HH INCOME
469	401300	238	423	716	0	716	28	160	50	450	688	26500
470	401300	122	190	367	0	367	97	390	188	470	1145	26500
734	401300	100	153	300	0	300	7	160	40	350	557	26500
75	403500	1137	1262	1989	0	1989	65	168	369	300	902	47300
504	403500	143	137	249	0	249	40	650	360	560	1610	47300
735	403500	754	652	1308	10	1318	17	154	325	310	806	47300
<b>Subtotal</b>		<b>2968</b>	<b>3396</b>	<b>6031</b>	<b>335</b>	<b>6366</b>	<b>267</b>	<b>2612</b>	<b>1882</b>	<b>6172</b>	<b>10933</b>	
<b>Lake Merritt Grand/Adams Point</b>												
86	403400	0	0	0	0	0	0	340	0	110	450	0
505	403500	1193	1218	2072	15	2087	0	30	20	20	70	47300
85	403600	2915	2573	4319	81	4400	0	40	0	360	400	62200
516	403700	1791	1908	2756	40	2796	0	95	45	400	540	60000
776	403700	1190	1210	1853	3	1856	5	210	200	675	1090	60000
<b>Subtotal</b>		<b>7089</b>	<b>6909</b>	<b>11000</b>	<b>139</b>	<b>11139</b>	<b>5</b>	<b>715</b>	<b>265</b>	<b>1565</b>	<b>2550</b>	
<b>OAK CENTRAL TOTAL</b>		<b>16368</b>	<b>18041</b>	<b>30469</b>	<b>1716</b>	<b>32185</b>	<b>6220</b>	<b>34989</b>	<b>7935</b>	<b>29494</b>	<b>78638</b>	

Source: Hausrath Economics Group; incorporates 2000 Census and ABAG Projections 2002 demographics.

Table 4b: 2010 CUMULATIVE OAKLAND LAND USE DATA - DOWNTOWN OAKLAND / OAKLAND CENTRAL TAZS - JUNE 2003

TAZ	CENSUS TRACT	EMPLYD RSDNTS	HOUSE HOLDS	HH POP	GROUP POP	TOT POP	MFG JOBS	OTHER JOBS	RETAIL JOBS	SERVICE JOBS	TOTAL JOBS	MEAN HH INCOME
<b>Kaiser Center Area</b>												
74	402900	34	44	91	0	91	97	790	145	1872	2904	48900
501	402900	1	2	2	0	2	269	2087	100	2164	4620	48900
502	402900	2	1	5	0	5	110	1451	109	818	2488	48900
503	402900	0	1	1	0	1	640	4276	167	4955	10038	48900
517	403400	2531	2687	4408	68	4476	100	804	85	577	1566	66900
<b>Subtotal</b>		<b>2568</b>	<b>2735</b>	<b>4507</b>	<b>68</b>	<b>4575</b>	<b>1216</b>	<b>9408</b>	<b>606</b>	<b>10386</b>	<b>21616</b>	
<b>Uptown</b>												
70	402800	1604	1225	2218	0	2218	0	27	165	294	486	88300
483	402800	576	479	1112	1032	2144	0	421	51	253	725	27100
484	402800	0	0	0	0	0	36	365	87	735	1223	0
485	402800	0	0	0	0	0	0	467	324	446	1237	0
<b>Subtotal</b>		<b>2180</b>	<b>1704</b>	<b>3330</b>	<b>1032</b>	<b>4362</b>	<b>36</b>	<b>1280</b>	<b>627</b>	<b>1728</b>	<b>3671</b>	
<b>City Center/Government Center</b>												
803	402700	187	197	571	0	571	0	136	33	84	253	36300
486	402800	20	45	115	0	115	5	717	107	990	1819	20300
487	402800	0	1	2	0	2	0	745	0	117	862	20300
488	402800	335	719	1565	262	1827	0	2426	35	363	2824	20300
499	402900	508	823	1392	0	1392	58	611	150	607	1426	48900
500	402900	192	167	278	127	405	173	1202	249	1525	3149	91700
497	403000	124	213	325	0	325	165	1458	267	1815	3705	41200
498	403000	464	576	1083	0	1083	418	105	197	156	876	48400
489	403100	461	384	653	0	653	200	2800	10	1140	4150	98500
490	403100	0	0	0	0	0	1638	2283	324	4473	8718	0
<b>Subtotal</b>		<b>2291</b>	<b>3125</b>	<b>5984</b>	<b>389</b>	<b>6373</b>	<b>2657</b>	<b>12483</b>	<b>1372</b>	<b>11270</b>	<b>27782</b>	
<b>Old Oakland</b>												
802	402600	285	276	668	0	668	10	55	0	103	168	60400
71	403100	80	116	230	1	231	71	66	234	989	1360	42500
491	403100	327	341	786	0	786	152	76	117	125	470	57600
492	403100	252	177	360	676	1036	0	436	26	97	559	21500
493	403100	51	40	66	142	208	0	890	56	137	1083	21500
<b>Subtotal</b>		<b>995</b>	<b>950</b>	<b>2110</b>	<b>819</b>	<b>2929</b>	<b>233</b>	<b>1523</b>	<b>433</b>	<b>1451</b>	<b>3640</b>	
<b>Chinatown</b>												
73	403000	56	43	149	0	149	404	125	475	156	1160	41200
494	403000	58	70	139	10	149	169	76	192	206	643	41200
495	403000	72	60	187	0	187	494	125	191	106	916	41200
496	403000	547	648	1313	0	1313	168	908	510	1134	2720	47000
<b>Subtotal</b>		<b>733</b>	<b>821</b>	<b>1788</b>	<b>10</b>	<b>1798</b>	<b>1235</b>	<b>1234</b>	<b>1368</b>	<b>1602</b>	<b>5439</b>	
<b>County Bldgs/MetroCenter/Laney</b>												
519	403300	477	372	1053	0	1053	41	1939	38	588	2606	48700
520	403300	386	245	826	2	828	26	1675	38	221	1960	48700
521	403300	259	141	508	42	550	0	1211	80	178	1469	48700
518	403400	149	137	249	0	249	42	2167	33	231	2473	70700
536	406000	0	0	0	1	1	0	728	0	0	728	0
<b>Subtotal</b>		<b>1271</b>	<b>895</b>	<b>2636</b>	<b>45</b>	<b>2681</b>	<b>109</b>	<b>7720</b>	<b>189</b>	<b>1218</b>	<b>9236</b>	
<b>Jack London District</b>												
800	402000	11	6	15	0	15	81	47	14	12	154	94100
801	402000	48	30	72	0	72	0	53	0	4	57	79200
72	403200	0	0	0	0	0	0	715	588	459	1762	0
736	403200	2	1	2	0	2	0	235	943	611	1789	56700
767	403200	0	0	0	0	0	0	100	427	305	832	0
768	403200	315	256	449	0	449	64	560	198	550	1372	85900
795	403200	1	1	1	0	1	70	765	83	329	1247	56700
796	403200	139	123	197	1	198	134	584	155	245	1118	86300
87	403300	0	0	0	0	0	72	294	50	43	459	0
797	403300	705	568	1007	1	1008	36	43	204	119	402	98400
798	403300	182	148	259	0	259	140	54	29	45	268	86500
799	403300	530	463	772	0	772	0	218	18	18	254	70300
<b>Subtotal</b>		<b>1933</b>	<b>1596</b>	<b>2774</b>	<b>2</b>	<b>2776</b>	<b>597</b>	<b>3668</b>	<b>2709</b>	<b>2740</b>	<b>9714</b>	
<b>DOWNTOWN SUBTOTAL</b>		<b>11971</b>	<b>11826</b>	<b>23129</b>	<b>2365</b>	<b>25494</b>	<b>6083</b>	<b>37316</b>	<b>7304</b>	<b>30395</b>	<b>81098</b>	
<b>Valdez Area/Summit Area/So. Auto Row</b>												
56	401300	272	280	528	212	740	6	450	300	1356	2112	36700
467	401300	75	64	114	109	223	0	320	305	2196	2821	28600
468	401300	200	275	602	9	611	0	140	30	320	490	28600

TAZ	CENSUS TRACT	EMPLYD RSDNTS	HOUSE HOLDS	HH POP	GROUP POP	TOT POP	MFG JOBS	OTHER JOBS	RETAIL JOBS	SERVICE JOBS	TOTAL JOBS	MEAN HH INCOME
469	401300	438	563	1037	0	1037	10	140	57	447	654	42200
470	401300	128	190	391	0	391	97	404	203	492	1196	28600
734	401300	105	153	320	0	320	0	140	40	350	530	28600
75	403500	1193	1262	2085	0	2085	65	168	369	340	942	50200
504	403500	423	365	649	0	649	40	650	385	610	1685	72300
735	403500	791	652	1371	10	1381	17	154	325	345	841	50200
<b>Subtotal</b>		<b>3625</b>	<b>3804</b>	<b>7097</b>	<b>340</b>	<b>7437</b>	<b>235</b>	<b>2566</b>	<b>2014</b>	<b>6456</b>	<b>11271</b>	
<b>Lake Merritt Grand/Adams Point</b>												
86	403400	0	0	0	0	0	0	365	0	122	487	0
505	403500	1455	1387	2459	15	2474	0	30	49	32	111	56100
85	403600	3059	2573	4361	82	4443	0	40	0	360	400	69200
516	403700	1880	1908	2813	96	2909	0	95	45	430	570	63700
776	403700	1249	1210	1891	3	1894	5	235	200	750	1190	63700
<b>Subtotal</b>		<b>7643</b>	<b>7078</b>	<b>11524</b>	<b>196</b>	<b>11720</b>	<b>5</b>	<b>765</b>	<b>294</b>	<b>1694</b>	<b>2758</b>	
<b>OAK CENTRAL TOTAL</b>		<b>23239</b>	<b>22708</b>	<b>41750</b>	<b>2901</b>	<b>44651</b>	<b>6323</b>	<b>40647</b>	<b>9612</b>	<b>38545</b>	<b>95127</b>	
Source: Hausrath Economics Group; incorporates 2000 Census and ABAG Projections 2002 demographics.												

Table 4c: 2025 CUMULATIVE OAKLAND LAND USE DATA - DOWNTOWN OAKLAND / OAKLAND CENTRAL TAZS - JUNE 2003

TAZ	CENSUS TRACT	EMPLYD RSDNTS	HOUSE HOLDS	HH POP	GROUP POP	TOT POP	MFG JOBS	OTHER JOBS	RETAIL JOBS	SERVICE JOBS	TOTAL JOBS	MEAN HH INCOME
<b>Kaiser Center Area</b>												
74	402900	37	44	90	0	90	96	819	158	1972	3045	54800
501	402900	1	2	2	0	2	269	2087	113	2164	4633	54800
502	402900	2	1	5	0	5	110	1481	129	918	2638	54800
503	402900	0	1	1	0	1	640	4352	184	5007	10183	54800
517	403400	2741	2687	4381	71	4452	98	804	95	735	1732	75800
<b>Subtotal</b>		<b>2781</b>	<b>2735</b>	<b>4479</b>	<b>71</b>	<b>4550</b>	<b>1213</b>	<b>9543</b>	<b>679</b>	<b>10796</b>	<b>22231</b>	
<b>Uptown</b>												
70	402800	1604	1225	2218	0	2218	0	47	175	326	548	101100
483	402800	823	670	1430	1032	2462	0	421	51	223	695	49300
484	402800	0	0	0	0	0	36	385	97	815	1333	0
485	402800	0	0	0	0	0	0	517	344	661	1522	0
<b>Subtotal</b>		<b>2427</b>	<b>1895</b>	<b>3648</b>	<b>1032</b>	<b>4680</b>	<b>36</b>	<b>1370</b>	<b>667</b>	<b>2025</b>	<b>4098</b>	
<b>City Center/Government Center</b>												
803	402700	298	274	695	0	695	0	110	28	104	242	57100
486	402800	21	45	114	0	114	5	727	137	1090	1959	22000
487	402800	0	1	2	0	2	0	809	20	143	972	22000
488	402800	461	796	1685	274	1959	0	2536	70	388	2994	29400
499	402900	708	948	1595	0	1595	58	621	163	647	1489	62400
500	402900	194	167	278	127	405	172	1282	279	1875	3608	104700
497	403000	344	386	617	0	617	167	1501	297	2197	4162	70200
498	403000	730	768	1403	0	1403	348	111	209	258	926	66400
489	403100	461	384	653	0	653	420	3221	10	2446	6097	112700
490	403100	0	0	0	0	0	1638	2283	384	4523	8828	0
<b>Subtotal</b>		<b>3217</b>	<b>3769</b>	<b>7042</b>	<b>401</b>	<b>7443</b>	<b>2808</b>	<b>13201</b>	<b>1597</b>	<b>13671</b>	<b>31277</b>	
<b>Old Oakland</b>												
802	402600	299	276	664	0	664	10	55	0	113	178	68400
71	403100	245	250	457	1	458	11	79	269	1151	1510	74800
491	403100	524	497	1048	0	1048	52	56	142	215	465	75700
492	403100	478	345	644	706	1350	0	456	26	117	599	59800
493	403100	148	117	197	148	345	0	1290	76	414	1780	72500
<b>Subtotal</b>		<b>1694</b>	<b>1485</b>	<b>3010</b>	<b>855</b>	<b>3865</b>	<b>73</b>	<b>1936</b>	<b>513</b>	<b>2010</b>	<b>4532</b>	
<b>Chinatown</b>												
73	403000	62	43	148	0	148	404	131	485	182	1202	47700
494	403000	334	296	522	10	532	169	82	217	232	700	86100
495	403000	79	60	186	0	186	494	131	201	132	958	47700
496	403000	591	648	1306	0	1306	168	952	535	1284	2939	54200
<b>Subtotal</b>		<b>1066</b>	<b>1047</b>	<b>2162</b>	<b>10</b>	<b>2172</b>	<b>1235</b>	<b>1296</b>	<b>1438</b>	<b>1830</b>	<b>5799</b>	
<b>County Bldgs/MetroCenter/Laney</b>												
519	403300	523	372	1046	0	1046	20	1939	49	638	2646	57500
520	403300	654	437	1147	2	1149	25	1736	42	249	2052	75300
521	403300	1091	813	1647	44	1691	0	1271	90	218	1579	91000
518	403400	399	338	590	0	590	41	2387	34	281	2743	90900
536	406000	0	0	0	1	1	0	718	10	20	748	0
<b>Subtotal</b>		<b>2667</b>	<b>1960</b>	<b>4430</b>	<b>47</b>	<b>4477</b>	<b>86</b>	<b>8051</b>	<b>225</b>	<b>1406</b>	<b>9768</b>	
<b>Jack London District</b>												
800	402000	12	6	15	0	15	41	25	14	172	252	106800
801	402000	48	30	72	0	72	0	53	0	7	60	90600
72	403200	0	0	0	0	0	0	748	588	459	1795	0
736	403200	2	1	2	0	2	30	439	1363	872	2704	64700
767	403200	0	0	0	0	0	0	194	490	582	1266	0
768	403200	488	400	694	0	694	64	476	276	739	1555	98200
795	403200	1	1	1	0	1	70	779	83	462	1394	64700
796	403200	212	181	295	1	296	106	479	178	365	1128	98400
87	403300	115	96	163	0	163	72	294	50	43	459	98000
797	403300	705	568	1007	1	1008	3	63	221	212	499	112600
798	403300	562	465	798	0	798	28	137	77	230	472	98300
799	403300	552	463	767	0	767	0	218	18	18	254	81200
<b>Subtotal</b>		<b>2697</b>	<b>2211</b>	<b>3814</b>	<b>2</b>	<b>3816</b>	<b>414</b>	<b>3905</b>	<b>3358</b>	<b>4161</b>	<b>11838</b>	
<b>DOWNTOWN SUBTOTAL</b>		<b>16549</b>	<b>15102</b>	<b>28585</b>	<b>2418</b>	<b>31003</b>	<b>5865</b>	<b>39302</b>	<b>8477</b>	<b>35899</b>	<b>89543</b>	
<b>Valdez Area/Summit Area/So. Auto Row</b>												
56	401300	294	280	525	221	746	6	455	310	1386	2157	41900
467	401300	82	64	113	114	227	0	325	315	2236	2876	32500
468	401300	220	275	598	9	607	0	145	35	335	515	32500



TAZ	CENSUS TRACT	EMPLYD RSDNTS	HOUSE HOLDS	HH POP	GROUP POP	TOT POP	MFG JOBS	OTHER JOBS	RETAIL JOBS	SERVICE JOBS	TOTAL JOBS	MEAN HH INCOME
469	401300	776	824	1477	0	1477	2	140	57	467	666	63900
470	401300	141	190	389	0	389	89	404	213	512	1218	32500
734	401300	116	153	318	0	318	0	145	45	365	555	32500
75	403500	1312	1262	2071	0	2071	65	173	384	360	982	58500
504	403500	1771	1476	2536	0	2536	40	660	403	650	1753	94300
735	403500	869	652	1362	10	1372	17	159	340	365	881	58500
<b>Subtotal</b>		<b>5581</b>	<b>5176</b>	<b>9389</b>	<b>354</b>	<b>9743</b>	<b>219</b>	<b>2606</b>	<b>2102</b>	<b>6676</b>	<b>11603</b>	
<b>Lake Merritt Grand/Adams Point</b>												
86	403400	0	0	0	0	0	0	385	0	127	512	0
505	403500	1579	1387	2445	15	2460	0	34	49	42	125	65100
85	403600	3363	2573	4333	85	4418	0	40	0	335	375	80200
516	403700	2067	1908	2863	96	2959	0	95	49	450	594	74300
776	403700	1373	1210	1925	3	1928	5	235	210	790	1240	74300
<b>Subtotal</b>		<b>8382</b>	<b>7078</b>	<b>11566</b>	<b>199</b>	<b>11765</b>	<b>5</b>	<b>789</b>	<b>308</b>	<b>1744</b>	<b>2846</b>	
<b>OAK CENTRAL TOTAL</b>		<b>30512</b>	<b>27356</b>	<b>49540</b>	<b>2971</b>	<b>52511</b>	<b>6089</b>	<b>42697</b>	<b>10887</b>	<b>44319</b>	<b>103992</b>	
Source: Hausrath Economics Group; incorporates 2000 Census and ABAG Projections 2002 demographics.												

Table 4d: 2000-2010 CUMULATIVE OAKLAND LAND USE DATA - DOWNTOWN OAKLAND / OAKLAND CENTRAL TAZS - JUNE 2003

TAZ	CENSUS TRACT	EMPLYD RSDNTS	HOUSE HOLDS	HH POP	GROUP POP	TOT POP	MFG JOBS	OTHER JOBS	RETAIL JOBS	SERVICE JOBS	TOTAL JOBS	MEAN HH INCOME
<b>Kaiser Center Area</b>												
74	402900	2	0	15	0	15	0	100	10	150	260	9600
501	402900	0	0	0	0	0	0	20	0	30	50	9600
502	402900	0	0	1	0	1	80	1251	49	465	1845	9600
503	402900	0	0	0	0	0	100	832	20	1381	2333	9600
517	403400	521	351	931	1	932	0	0	0	35	35	8900
<b>Subtotal</b>		<b>523</b>	<b>351</b>	<b>947</b>	<b>1</b>	<b>948</b>	<b>180</b>	<b>2203</b>	<b>79</b>	<b>2061</b>	<b>4523</b>	
<b>Uptown</b>												
70	402800	1590	1199	2171	-5	2166	0	27	90	210	327	69000
483	402800	406	50	523	1000	1523	-43	318	34	-140	169	7800
484	402800	0	0	0	0	0	0	0	17	0	17	0
485	402800	0	0	0	0	0	0	345	64	346	755	0
<b>Subtotal</b>		<b>1996</b>	<b>1249</b>	<b>2694</b>	<b>995</b>	<b>3689</b>	<b>-43</b>	<b>690</b>	<b>205</b>	<b>416</b>	<b>1268</b>	
<b>City Center/Government Center</b>												
803	402700	3	0	-11	0	-11	0	0	0	0	0	3200
486	402800	1	0	48	0	48	0	150	72	526	748	1000
487	402800	0	0	1	0	1	0	20	0	67	87	1000
488	402800	16	0	654	4	658	-20	866	-5	203	1044	1000
499	402900	23	0	229	0	229	0	8	15	275	298	9600
500	402900	173	144	250	110	360	40	112	10	491	653	52400
497	403000	6	0	19	0	19	0	50	0	290	340	8100
498	403000	129	94	214	0	214	-20	-7	0	20	-7	15300
489	403100	461	384	653	0	653	200	300	10	1100	1610	98500
490	403100	0	0	0	0	0	133	400	0	1425	1958	0
<b>Subtotal</b>		<b>812</b>	<b>622</b>	<b>2057</b>	<b>114</b>	<b>2171</b>	<b>333</b>	<b>1899</b>	<b>102</b>	<b>4397</b>	<b>6731</b>	
<b>Old Oakland</b>												
802	402600	152	120	248	0	248	0	0	0	0	0	29400
71	403100	47	38	98	0	98	0	12	0	88	100	22800
491	403100	235	192	419	0	419	-50	5	25	48	28	37900
492	403100	12	0	72	10	82	0	0	0	0	0	1800
493	403100	2	0	13	2	15	-70	-950	30	20	-970	1800
<b>Subtotal</b>		<b>448</b>	<b>350</b>	<b>850</b>	<b>12</b>	<b>862</b>	<b>-120</b>	<b>-933</b>	<b>55</b>	<b>156</b>	<b>-842</b>	
<b>Chinatown</b>												
73	403000	2	0	9	0	9	-45	-7	0	14	-38	8100
494	403000	3	0	8	0	8	-7	-2	0	14	5	8100
495	403000	4	0	11	0	11	-25	-7	0	14	-18	8100
496	403000	122	84	211	0	211	-10	27	35	166	218	13900
<b>Subtotal</b>		<b>131</b>	<b>84</b>	<b>239</b>	<b>0</b>	<b>239</b>	<b>-87</b>	<b>11</b>	<b>35</b>	<b>208</b>	<b>167</b>	
<b>County Bldgs/MetroCenter/Laney</b>												
519	403300	17	38	210	0	210	0	1334	-13	333	1654	2900
520	403300	8	0	135	0	135	0	10	-13	9	6	2900
521	403300	5	0	83	1	84	0	11	0	6	17	2900
518	403400	62	48	96	0	96	-2	0	0	0	-2	12700
536	406000	0	0	0	0	0	0	-10	0	0	-10	0
<b>Subtotal</b>		<b>92</b>	<b>86</b>	<b>524</b>	<b>1</b>	<b>525</b>	<b>-2</b>	<b>1345</b>	<b>-26</b>	<b>348</b>	<b>1665</b>	
<b>Jack London District</b>												
800	402000	0	0	0	0	0	0	0	0	0	0	13200
801	402000	42	27	62	0	62	0	50	0	0	50	-1700
72	403200	0	0	0	0	0	0	148	370	278	796	0
736	403200	0	0	0	0	0	0	163	419	430	1012	6100
767	403200	0	0	0	0	0	0	-15	103	-5	83	0
768	403200	307	248	438	0	438	0	62	100	144	306	35300
795	403200	0	0	0	0	0	0	52	-27	106	131	6100
796	403200	105	87	149	0	149	0	-43	86	-9	34	35700
87	403300	0	0	0	0	0	0	0	0	0	0	0
797	403300	704	567	1005	0	1005	-35	20	15	95	95	52600
798	403300	182	148	259	0	259	-91	0	0	13	-78	40700
799	403300	318	271	467	0	467	0	2	0	0	2	24500
<b>Subtotal</b>		<b>1658</b>	<b>1348</b>	<b>2380</b>	<b>0</b>	<b>2380</b>	<b>-126</b>	<b>439</b>	<b>1066</b>	<b>1052</b>	<b>2431</b>	
<b>DOWNTOWN SUBTOTAL</b>		<b>5660</b>	<b>4090</b>	<b>9691</b>	<b>1123</b>	<b>10814</b>	<b>135</b>	<b>5654</b>	<b>1516</b>	<b>8638</b>	<b>15943</b>	
<b>Valdez Area/Summit Area/So. Auto Row</b>												
56	401300	59	40	97	3	100	0	0	60	80	140	10200
467	401300	4	0	7	2	9	0	0	25	60	85	2100
468	401300	10	0	38	0	38	-7	-20	0	0	-27	2100

TAZ	CENSUS TRACT	EMPLYD RSDNTS	HOUSE HOLDS	HH POP	GROUP POP	TOT POP	MFG JOBS	OTHER JOBS	RETAIL JOBS	SERVICE JOBS	TOTAL JOBS	MEAN HH INCOME
469	401300	200	140	321	0	321	-18	-20	7	-3	-34	15700
470	401300	6	0	24	0	24	0	14	15	22	51	2100
734	401300	5	0	20	0	20	-7	-20	0	0	-27	2100
75	403500	56	0	96	0	96	0	0	0	40	40	2900
504	403500	280	228	400	0	400	0	0	25	50	75	25000
735	403500	37	0	63	0	63	0	0	0	35	35	2900
<b>Subtotal</b>		<b>657</b>	<b>408</b>	<b>1066</b>	<b>5</b>	<b>1071</b>	<b>-32</b>	<b>-46</b>	<b>132</b>	<b>284</b>	<b>338</b>	
<b>Lake Merritt Grand/Adams Point</b>												
86	403400	0	0	0	0	0	0	25	0	12	37	0
505	403500	262	169	387	0	387	0	0	29	12	41	8800
85	403600	144	0	42	1	43	0	0	0	0	0	7000
516	403700	89	0	57	56	113	0	0	0	30	30	3700
776	403700	59	0	38	0	38	0	25	0	75	100	3700
<b>Subtotal</b>		<b>554</b>	<b>169</b>	<b>524</b>	<b>57</b>	<b>581</b>	<b>0</b>	<b>50</b>	<b>29</b>	<b>129</b>	<b>208</b>	
<b>OAK CENTRAL TOTAL</b>		<b>6871</b>	<b>4667</b>	<b>11281</b>	<b>1185</b>	<b>12466</b>	<b>103</b>	<b>5658</b>	<b>1677</b>	<b>9051</b>	<b>16489</b>	
Source: Housrath Economics Group; incorporates 2000 Census and ABAG Projections 2002 demographics.												

Table 4e: 2010-2025 CUMULATIVE OAKLAND LAND USE DATA - DOWNTOWN OAKLAND / OAKLAND CENTRAL TAZS - JUNE 2003

TAZ	CENSUS TRACT	EMPLYD RSDNTS	HOUSE HOLDS	HH POP	GROUP POP	TOT POP	MFG JOBS	OTHER JOBS	RETAIL JOBS	SERVICE JOBS	TOTAL JOBS	MEAN HH INCOME
<b>Kaiser Center Area</b>												
74	402900	3	0	-1	0	-1	-1	29	13	100	141	5900
501	402900	0	0	0	0	0	0	0	13	0	13	5900
502	402900	0	0	0	0	0	0	30	20	100	150	5900
503	402900	0	0	0	0	0	0	76	17	52	145	5900
517	403400	210	0	-27	3	-24	-2	0	10	158	166	8900
<b>Subtotal</b>		<b>213</b>	<b>0</b>	<b>-28</b>	<b>3</b>	<b>-25</b>	<b>-3</b>	<b>135</b>	<b>73</b>	<b>410</b>	<b>615</b>	
<b>Uptown</b>												
70	402800	0	0	0	0	0	0	20	10	32	62	12800
483	402800	247	191	318	0	318	0	0	0	-30	-30	22200
484	402800	0	0	0	0	0	0	20	10	80	110	0
485	402800	0	0	0	0	0	0	50	20	215	285	0
<b>Subtotal</b>		<b>247</b>	<b>191</b>	<b>318</b>	<b>0</b>	<b>318</b>	<b>0</b>	<b>90</b>	<b>40</b>	<b>297</b>	<b>427</b>	
<b>City Center/Government Center</b>												
803	402700	111	77	124	0	124	0	-26	-5	20	-11	20800
486	402800	1	0	-1	0	-1	0	10	30	100	140	1700
487	402800	0	0	0	0	0	0	64	20	26	110	1700
488	402800	126	77	120	12	132	0	110	35	25	170	9100
499	402900	200	125	203	0	203	0	10	13	40	63	13500
500	402900	2	0	0	0	0	-1	80	30	350	459	13000
497	403000	220	173	292	0	292	2	43	30	382	457	29000
498	403000	266	192	320	0	320	-70	6	12	102	50	18000
489	403100	0	0	0	0	0	220	421	0	1306	1947	14200
490	403100	0	0	0	0	0	0	0	60	50	110	0
<b>Subtotal</b>		<b>926</b>	<b>644</b>	<b>1058</b>	<b>12</b>	<b>1070</b>	<b>151</b>	<b>718</b>	<b>225</b>	<b>2401</b>	<b>3495</b>	
<b>Old Oakland</b>												
802	402600	14	0	-4	0	-4	0	0	0	10	10	8000
71	403100	165	134	227	0	227	-60	13	35	162	150	32300
491	403100	197	156	262	0	262	-100	-20	25	90	-5	18100
492	403100	226	168	284	30	314	0	20	0	20	40	38300
493	403100	97	77	131	6	137	0	400	20	277	697	51000
<b>Subtotal</b>		<b>699</b>	<b>535</b>	<b>900</b>	<b>36</b>	<b>936</b>	<b>-160</b>	<b>413</b>	<b>80</b>	<b>559</b>	<b>892</b>	
<b>Chinatown</b>												
73	403000	6	0	-1	0	-1	0	6	10	26	42	6500
494	403000	276	226	383	0	383	0	6	25	26	57	44900
495	403000	7	0	-1	0	-1	0	6	10	26	42	6500
496	403000	44	0	-7	0	-7	0	44	25	150	219	7200
<b>Subtotal</b>		<b>333</b>	<b>226</b>	<b>374</b>	<b>0</b>	<b>374</b>	<b>0</b>	<b>62</b>	<b>70</b>	<b>228</b>	<b>360</b>	
<b>County Bldgs/MetroCenter/Laney</b>												
519	403300	46	0	-7	0	-7	-21	0	11	50	40	8800
520	403300	268	192	321	0	321	-1	61	4	28	92	26600
521	403300	832	672	1139	2	1141	0	60	10	40	110	42300
518	403400	250	201	341	0	341	-1	220	1	50	270	20200
536	406000	0	0	0	0	0	0	-10	10	20	20	0
<b>Subtotal</b>		<b>1396</b>	<b>1065</b>	<b>1794</b>	<b>2</b>	<b>1796</b>	<b>-23</b>	<b>331</b>	<b>36</b>	<b>188</b>	<b>532</b>	
<b>Jack London District</b>												
800	402000	1	0	0	0	0	-40	-22	0	160	98	12700
801	402000	0	0	0	0	0	0	0	0	3	3	11400
72	403200	0	0	0	0	0	0	33	0	0	33	0
736	403200	0	0	0	0	0	30	204	420	261	915	8000
767	403200	0	0	0	0	0	0	94	63	277	434	0
768	403200	173	144	245	0	245	0	-84	78	189	183	12300
795	403200	0	0	0	0	0	0	14	0	133	147	8000
796	403200	73	58	98	0	98	-28	-105	23	120	10	12100
87	403300	115	96	163	0	163	0	0	0	0	0	98000
797	403300	0	0	0	0	0	-33	20	17	93	97	14200
798	403300	380	317	539	0	539	-112	83	48	185	204	11800
799	403300	22	0	-5	0	-5	0	0	0	0	0	10900
<b>Subtotal</b>		<b>764</b>	<b>615</b>	<b>1040</b>	<b>0</b>	<b>1040</b>	<b>-183</b>	<b>237</b>	<b>649</b>	<b>1421</b>	<b>2124</b>	
<b>DOWNTOWN SUBTOTAL</b>		<b>4578</b>	<b>3276</b>	<b>5456</b>	<b>53</b>	<b>5509</b>	<b>-218</b>	<b>1986</b>	<b>1173</b>	<b>5504</b>	<b>8445</b>	
<b>Valdez Area/Summit Area/So. Auto Row</b>												
56	401300	22	0	-3	9	6	0	5	10	30	45	5200
467	401300	7	0	-1	5	4	0	5	10	40	55	3900
468	401300	20	0	-4	0	-4	0	5	5	15	25	3900

TAZ	CENSUS TRACT	EMPLYD RSDNTS	HOUSE HOLDS	HH POP	GROUP POP	TOT POP	MFG JOBS	OTHER JOBS	RETAIL JOBS	SERVICE JOBS	TOTAL JOBS	MEAN HH INCOME
469	401300	338	261	440	0	440	-8	0	0	20	12	21700
470	401300	13	0	-2	0	-2	-8	0	10	20	22	3900
734	401300	11	0	-2	0	-2	0	5	5	15	25	3900
75	403500	119	0	-14	0	-14	0	5	15	20	40	8300
504	403500	1348	1111	1887	0	1887	0	10	18	40	68	22000
735	403500	78	0	-9	0	-9	0	5	15	20	40	8300
<b>Subtotal</b>		<b>1956</b>	<b>1372</b>	<b>2292</b>	<b>14</b>	<b>2306</b>	<b>-16</b>	<b>40</b>	<b>88</b>	<b>220</b>	<b>332</b>	
<b>Lake Merritt Grand/Adams Point</b>												
86	403400	0	0	0	0	0	0	20	0	5	25	0
505	403500	124	0	-14	0	-14	0	4	0	10	14	9000
85	403600	304	0	-28	3	-25	0	0	0	-25	-25	11000
516	403700	187	0	50	0	50	0	0	4	20	24	10600
776	403700	124	0	34	0	34	0	0	10	40	50	10600
<b>Subtotal</b>		<b>739</b>	<b>0</b>	<b>42</b>	<b>3</b>	<b>45</b>	<b>0</b>	<b>24</b>	<b>14</b>	<b>50</b>	<b>88</b>	
<b>OAK CENTRAL TOTAL</b>		<b>7273</b>	<b>4648</b>	<b>7790</b>	<b>70</b>	<b>7860</b>	<b>-234</b>	<b>2050</b>	<b>1275</b>	<b>5774</b>	<b>8865</b>	

Source: Hausrath Economics Group; incorporates 2000 Census and ABAG Projections 2002 demographics.

Table 4f: 2000-2025 CUMULATIVE OAKLAND LAND USE DATA - DOWNTOWN OAKLAND / OAKLAND CENTRAL TAZS - JUNE 2003

TAZ	CENSUS TRACT	EMPLYD RSDNTS	HOUSE HOLDS	HH POP	GROUP POP	TOT POP	MFG JOBS	OTHER JOBS	RETAIL JOBS	SERVICE JOBS	TOTAL JOBS	MEAN HH INCOME
<b>Kaiser Center Area</b>												
74	402900	5	0	14	0	14	-1	129	23	250	401	15500
501	402900	0	0	0	0	0	0	20	13	30	63	15500
502	402900	0	0	1	0	1	80	1281	69	565	1995	15500
503	402900	0	0	0	0	0	100	908	37	1433	2478	15500
517	403400	731	351	904	4	908	-2	0	10	193	201	17800
<b>Subtotal</b>		<b>736</b>	<b>351</b>	<b>919</b>	<b>4</b>	<b>923</b>	<b>177</b>	<b>2338</b>	<b>152</b>	<b>2471</b>	<b>5138</b>	
<b>Uptown</b>												
70	402800	1590	1199	2171	-5	2166	0	47	100	242	389	81800
483	402800	653	241	841	1000	1841	-43	318	34	-170	139	30000
484	402800	0	0	0	0	0	0	20	27	80	127	0
485	402800	0	0	0	0	0	0	395	84	561	1040	0
<b>Subtotal</b>		<b>2243</b>	<b>1440</b>	<b>3012</b>	<b>995</b>	<b>4007</b>	<b>-43</b>	<b>780</b>	<b>245</b>	<b>713</b>	<b>1695</b>	
<b>City Center/Government Center</b>												
803	402700	114	77	113	0	113	0	-26	-5	20	-11	24000
486	402800	2	0	47	0	47	0	160	102	626	888	2700
487	402800	0	0	1	0	1	0	84	20	93	197	2700
488	402800	142	77	774	16	790	-20	976	30	228	1214	10100
499	402900	223	125	432	0	432	0	18	28	315	361	23100
500	402900	175	144	250	110	360	39	192	40	841	1112	65400
497	403000	226	173	311	0	311	2	93	30	672	797	37100
498	403000	395	286	534	0	534	-90	-1	12	122	43	33300
489	403100	461	384	653	0	653	420	721	10	2406	3557	112700
490	403100	0	0	0	0	0	133	400	60	1475	2068	0
<b>Subtotal</b>		<b>1738</b>	<b>1266</b>	<b>3115</b>	<b>126</b>	<b>3241</b>	<b>484</b>	<b>2617</b>	<b>327</b>	<b>6798</b>	<b>10226</b>	
<b>Old Oakland</b>												
802	402600	166	120	244	0	244	0	0	0	10	10	37400
71	403100	212	172	325	0	325	-60	25	35	250	250	55100
491	403100	432	348	681	0	681	-150	-15	50	138	23	56000
492	403100	238	168	356	40	396	0	20	0	20	40	40100
493	403100	99	77	144	8	152	-70	-550	50	297	-273	52800
<b>Subtotal</b>		<b>1147</b>	<b>885</b>	<b>1750</b>	<b>48</b>	<b>1798</b>	<b>-280</b>	<b>-520</b>	<b>135</b>	<b>715</b>	<b>50</b>	
<b>Chinatown</b>												
73	403000	8	0	8	0	8	-45	-1	10	40	4	14600
494	403000	279	226	391	0	391	-7	4	25	40	62	53000
495	403000	11	0	10	0	10	-25	-1	10	40	24	14600
496	403000	166	84	204	0	204	-10	71	60	316	437	21100
<b>Subtotal</b>		<b>464</b>	<b>310</b>	<b>613</b>	<b>0</b>	<b>613</b>	<b>-87</b>	<b>73</b>	<b>105</b>	<b>436</b>	<b>527</b>	
<b>County Bldgs/MetroCenter/Laney</b>												
519	403300	63	38	203	0	203	-21	1334	-2	383	1694	11700
520	403300	276	192	456	0	456	-1	71	-9	37	98	29500
521	403300	837	672	1222	3	1225	0	71	10	46	127	45200
518	403400	312	249	437	0	437	-3	220	1	50	268	32900
536	406000	0	0	0	0	0	0	-20	10	20	10	0
<b>Subtotal</b>		<b>1488</b>	<b>1151</b>	<b>2318</b>	<b>3</b>	<b>2321</b>	<b>-25</b>	<b>1676</b>	<b>10</b>	<b>536</b>	<b>2197</b>	
<b>Jack London District</b>												
800	402000	1	0	0	0	0	-40	-22	0	160	98	25900
801	402000	42	27	62	0	62	0	50	0	3	53	9700
72	403200	0	0	0	0	0	0	181	370	278	829	0
736	403200	0	0	0	0	0	30	367	839	691	1927	14100
767	403200	0	0	0	0	0	0	79	166	272	517	0
768	403200	480	392	683	0	683	0	-22	178	333	489	47600
795	403200	0	0	0	0	0	0	66	-27	239	278	14100
796	403200	178	145	247	0	247	-28	-148	109	111	44	47800
87	403300	115	96	163	0	163	0	0	0	0	0	98000
797	403300	704	567	1005	0	1005	-68	40	32	188	192	66800
798	403300	562	465	798	0	798	-203	83	48	198	126	52500
799	403300	340	271	462	0	462	0	2	0	0	2	35400
<b>Subtotal</b>		<b>2422</b>	<b>1963</b>	<b>3420</b>	<b>0</b>	<b>3420</b>	<b>-309</b>	<b>676</b>	<b>1715</b>	<b>2473</b>	<b>4555</b>	
<b>DOWNTOWN SUBTOTAL</b>		<b>10238</b>	<b>7366</b>	<b>15147</b>	<b>1176</b>	<b>16323</b>	<b>-83</b>	<b>7640</b>	<b>2689</b>	<b>14142</b>	<b>24388</b>	
<b>Valdez Area/Summit Area/So. Auto Row</b>												
56	401300	81	40	94	12	106	0	5	70	110	185	15400
467	401300	11	0	6	7	13	0	5	35	100	140	6000
468	401300	30	0	34	0	34	-7	-15	5	15	-2	6000

TAZ	CENSUS TRACT	EMPLYD RSDNTS	HOUSE HOLDS	HH POP	GROUP POP	TOT POP	MFG JOBS	OTHER JOBS	RETAIL JOBS	SERVICE JOBS	TOTAL JOBS	MEAN HH INCOME
469	401300	538	401	761	0	761	-26	-20	7	17	-22	37400
470	401300	19	0	22	0	22	-8	14	25	42	73	6000
734	401300	16	0	18	0	18	-7	-15	5	15	-2	6000
75	403500	175	0	82	0	82	0	5	15	60	80	11200
504	403500	1628	1339	2287	0	2287	0	10	43	90	143	47000
735	403500	115	0	54	0	54	0	5	15	55	75	11200
<b>Subtotal</b>		<b>2613</b>	<b>1780</b>	<b>3358</b>	<b>19</b>	<b>3377</b>	<b>-48</b>	<b>-6</b>	<b>220</b>	<b>504</b>	<b>670</b>	
<b>Lake Merritt Grand/Adams Point</b>												
86	403400	0	0	0	0	0	0	45	0	17	62	0
505	403500	386	169	373	0	373	0	4	29	22	55	17800
85	403600	448	0	14	4	18	0	0	0	-25	-25	18000
516	403700	276	0	107	56	163	0	0	4	50	54	14300
776	403700	183	0	72	0	72	0	25	10	115	150	14300
<b>Subtotal</b>		<b>1293</b>	<b>169</b>	<b>566</b>	<b>60</b>	<b>626</b>	<b>0</b>	<b>74</b>	<b>43</b>	<b>179</b>	<b>296</b>	
<b>OAK CENTRAL TOTAL</b>		<b>14144</b>	<b>9315</b>	<b>19071</b>	<b>1255</b>	<b>20326</b>	<b>-131</b>	<b>7708</b>	<b>2952</b>	<b>14825</b>	<b>25354</b>	

Source: Hausrath Economics Group; incorporates 2000 Census and ABAG Projections 2002 demographics.

**TABLE 5  
OAKLAND CUMULATIVE GROWTH SCENARIO  
ASSUMPTIONS FOR HOUSING PROJECTS IN DOWNTOWN / OAKLAND CENTRAL  
UPTOWN PROJECT EIR - JUNE 2003**

/a/	Project	Time Period	Change /b/	Oak TAZ	CMA TAZ	Planning District	OC/DT Subarea	Units	House Holds /c/	Location	Status /d/	Comments/Status /e/
<b>PROJECTS TO BE COMPLETED 2000 - 2005 (Post Census 2000)</b>												
x	YWCA /f/	1		500	500	OC	CC	70	-	1515 Webster St.	1	Completed 2000
	Preservation Park III / Landmark Place	1	C	802	68	OC	CC	92	88	11th/12th & MLK	2	Under construction 7/1/02
	Arioso Project	1		496	496	OC	CT	88	84	9th & Franklin	2	Approved 8/00; under construction 5/03
x	Tower Lofts	1		768	72	OC	JLD	24	23	SW corner 3rd + Alice	1	Completed (not in 2000 Census)
x	2nd + Broadway Mixed Use (Roscoe's site)	1		768	72	OC	JLD	115	110	200-228 Broadway	3	Approved 2002
	4th Street Lofts	1		797	87	OC	JLD	61	59	247 4th	1	Completed (not in 2000 Census)
x	Sierra (former Dreyers)	1		797	87	OC	JLD	221	212	311 Oak	2	Under construction 2002
	New Market Lofts (former Safeway)	1		797	87	OC	JLD	46	44	201 4th	1	Completed 2001
x	Allegro	1		797	87	OC	JLD	168	162	308 Jackson; 189 3rd	1	Completed 2001 (312 total units)
x	Allegro	1		798	87	OC	JLD	144	138	2nd to 3rd / Jackson to Madison	1	Completed 2001 (312 total units)
x	Brick House Lofts	1		798	87	OC	JLD	10	10	SW corner 3rd + Jackson	1	Completed (not in 2000 Census)
	The Landing - Legacy Partners	1		799	87	OC	JLD	282	271	99 Embarcadero	1	Completed 2000
	Phoenix Lofts	1		801	481	OC	JLD	31	30	737 2nd	1	Completed 2000
x	Removal of Housing in Census	1		801	481	OC	JLD	(3)	(3)	2nd to 3rd / Bush to Castro	1	Housing no longer there
	Lake Point Tower (The Essex)	1		517	517	OC	KC	270	257	208 17th St.	1	Completed 2002
x	14th + Jackson	1	N	518	518	OC	KC	50	48	210 14th St.	3	Approved 6/02 (Opportunity Site DT-17?)
x	Perkins Street Residential Care /f/	1		516	516	OC	LGA	56	-	Perkins + Bellevue	1	Completed
	Swan's Market	1	C	71	71	OC	OO	39	38	9th & Washington	1	Completed 2001
	Housewives Market	1	C	491	491	OC	OO	200	192	8th/9th/Clay/Jefferson	3	Approved 3/01
	8th & Castro Lofts	1		802	68	OC	OO	18	17	8th & Castro	1	Completed 2002
	Gem Building Condos (Eighth Street)	1		802	68	OC	OO	16	15	485 8th St.	1	Completed 2000
x	425 28th St.	1	N	56	56	OC	VSA	20	19	27th/28th/Telegraph/Broadway	2	Under construction 7/1/02
x	371 30th St.	1	N	56	56	OC	VSA	22	21	371 30th St.	2	Under construction 2002
	Former Sears	1	C	469	469	OC	VSA	53	51	27th & Telegraph	2	Under construction 7/1/02
	Telegraph Gateway	1	C	469	469	OC	VSA	50	48	2401 Telegraph	3	Approved 6/01
x	Northgate Apartments	1	N	469	469	OC	VSA	42	41	592 Northgate (23rd + Northgate)	2	Under construction 2003
x	Valdez + 23rd / Upper Lake Merritt Residential	1	N	504	504	OC	VSA	237	228	2315 Valdez @ 23rd	3	Approved 1/02
<b>PROJECTS TO BE COMPLETED 2000 - 2005 TOTAL</b>								<b>2,422</b>	<b>2,203</b>			
<b>PROJECTS TO BE COMPLETED 2005 - 2010</b>												
xx	T10 / Camden	2		489	489	OC	CC	400	384	13th/14th/MLK/Jefferson	5	Pre-development 9/30/02; Housing Opportunity Site DT-2
	14th & Harrison Residential	2	T/C	498	498	OC	CC	98	94	1331 Harrison	5	Predevelopment 7/1/02
	1640 Broadway (17th & Broadway)	2		500	500	OC	CC	150	144	1640 Broadway	3	Approved 10/01; Assumes mixed use project
	11th & Oak senior housing	2	T/C	519	519	OC	CM	39	38	1109 Oak St.	4	Site acquired for affordable housing as of 7/02
x	Jack London Square Redevelopment Project - Site G	2	C	768	72	OC	JLD	120	115	Amtrak site	5	Housing proposed as part of parking garage development
x	300 Harrison (City Lofts)	2	T	796	72	OC	JLD	91	87	3rd + Harrison	3	Approved 2003



/a/	Project	Time Period	Change /b/	Oak TAZ	CMA TAZ	Planning District	OC/DT Subarea	Units	House Holds /c/	Location	Status /d/	Comments/Status /e/
x	Wheelink	2		797	87	OC	JLD	94	90	426 Alice	3	Approved 2002
	14th & Madison	2	T/C	517	517	OC	KC	96	94	160 14th St.	4	Site acquired for affordable housing as of 7/02
	Cox Cadillac Mixed Use	2	T/C	505	505	OC	LGA	176	169	230 Bay Place	3	Approved 12/01
xx	Forest City Residential / Uptown - apartments	2	T/C	70	70	OC	UT	1,000	965	San Pablo/Telegraph/20th/18th	5	Predevelopment 2002/2003
xx	Forest City Residential / Uptown - condos	2	T/C	70	70	OC	UT	270	260	San Pablo/Telegraph/18th/19th	5	Predevelopment 2002/2003
xx	U.C. Student Housing / Uptown	2	T/C	483	483	OC	UT	1,000	-	Telegraph/20th/21st	5	1000 beds of student housing; predevelopment 2002/2003
xx	U.C. Faculty Housing / Uptown	2	T/C	483	483	OC	UT	50	50	Telegraph/20th/21st	5	50 units of faculty housing; predevelopment 2002/2003
	<b>PROJECTS TO BE COMPLETED 2005 - 2010 TOTAL</b>							<b>3,584</b>	<b>2,490</b>			
	<b>PROJECTS TO BE COMPLETED 2010 - 2020</b>											
x	18th + Jefferson	3	N	488	488	OC	CC	80	77	18th/Jefferson/San Pablo	7	Housing Opportunity Site DT-14
	17th + Harrison	3	T/C	499	499	OC	CC	60	58	17th + Harrison	7	Housing Opportunity Site DT-6
x	15th + Harrison	3		499	499	OC	CC	70	67	15th + Harrison	7	Housing Opportunity Site DT-4
x	13th + Madison	3	N	518	518	OC	CM	70	67	1309 and 1329 Madison	7	Housing Opportunity Site DT-31
x	Channel Area	3		521	521	OC	CM	450	432	Oak/5th Ave/Embarcadero/12th St.	7	Housing Opportunity Site DT-11 (Peralta/City)
x	Salvation Army	3	N	494	494	OC	CT	175	168	6th/7th/Franklin	7	Housing Opportunity Site DT-7
x	Channel Area	3		87	87	OC	JLD	100	96	Oak/5th/Embarcadero/12th	7	Housing Opportunity Site DT-11
x	Jack London Area (Meyers Plumbing site)	3		768	72	OC	JLD	90	86	2nd + Harrison	7	Housing Opportunity Site DT-43
	Jack London Area Lofts (conversions or new constr)	3		796	72	OC	JLD	60	58	4th + Alice	7	
x	Jack London Area (Monahan Paper site)	3		798	87	OC	JLD	135	130	175 2nd	7	Housing Opportunity Site DT-42
x	Jack London Area (Miller Meat Sites)	3		798	87	OC	JLD	120	115	2nd / Alice to Jackson	7	Housing Opportunity Site DT-40
x	Old Oakland/Rattos block	3		71	71	OC	OO	100	96	8th/9th/Washington/Clay	7	Housing Opportunity Site DT-26
	8th + Washington	3		71	71	OC	OO	40	38	8th + Washington	7	Housing Opportunity Site DT-15
x	901 Jefferson	3		491	491	OC	OO	82	79	Jefferson/9th/10th	5	Pre-application 2002; Housing Opportunity Site DT-5
x	St. Mary's	3		492	492	OC	OO	75	72	MLK/7th/8th	7	Housing Opportunity Site DT-21
x	7th/Clay/Washington	3	N	493	493	OC	OO	80	77	7th/Washington/Clay	7	Housing Opportunity Site DT-36
xx	Dones / Berkley Square Project	3	N	483	483	OC	UT	98	95	San Pablo/21st/20th	5	Predevelopment 2002; Housing Opportunity Site DT-27
xx	Old Cathedral Site	3	N	483	483	OC	UT	100	96	20th/22nd/San Pablo	7	Housing Opportunity Site DT-19
	Former Sears - Phase II	3		469	469	OC	VSA	200	190	27th & Telegraph	7	Housing Opportunity Site DT-8
x	Telegraph Gateway 2	3	N	469	469	OC	VSA	74	71	24th + Telegraph	7	Housing Opportunity Site DT-22
	Grand + Webster	3		504	504	OC	VSA	200	190	Valdez + 23rd St. + Webster	7	Housing Opportunity Site DT-9 (Westmark Labor Temple)
x	24th + Webster	3	N	504	504	OC	VSA	120	115	24th/Webster/Valdez	7	Housing Opportunity Site DT-10
x	West Coast Properties	3	N	504	504	OC	VSA	140	134	23rd/24th/Valdez/Waverly	7	Housing Opportunity Site DT-3
	<b>PROJECTS TO BE COMPLETED 2010 - 2020 TOTAL</b>							<b>2,719</b>	<b>2,607</b>			
	<b>PROJECTS TO BE COMPLETED 2020 - 2025</b>											
x	Merchants Garage	4	N	497	497	OC	CC	180	173	1314 Franklin St.	7	Housing Opportunity Site DT-34
x	Cochran and Celli site	4	N	498	498	OC	CC	200	192	12th + Harrison	7	Housing Opportunity Site DT-13
x	Post Office Parking	4	N	518	518	OC	CM	140	134	13th/14th/Jackson/Alice	7	Housing Opportunity Site DT-24

<i>/a/</i>	<i>Project</i>	<i>Time Period</i>	<i>Change /b/</i>	<i>Oak TAZ</i>	<i>CMA TAZ</i>	<i>Planning District</i>	<i>OC/DT Subarea</i>	<i>Units</i>	<i>House Holds /c/</i>	<i>Location</i>	<i>Status /d/</i>	<i>Comments/Status /e/</i>
x	BART - Lake Merritt	4	N	520	520	OC	CM	200	192	8th/9th/Fallon/Oak	7	Housing Opportunity Site DT-23
x	Channel Area	4	N	521	521	OC	CM	250	240	Oak/5th Ave./Embarcadero/12th St.	7	Housing Opportunity Site DT-11
x	Broadway + 7th	4	N	494	494	OC	CT	60	58	7th/8th/Broadway	7	Housing Opportunity Site DT-16
	Jack London Area Lofts (Mid-Block Parking)	4		768	72	OC	JLD	60	58	2nd to 3rd / Webster to Harrison	7	Housing Opportunity Site DT-41
x	Jack London Area	4		798	87	OC	JLD	75	72	2nd to 3rd / Oak to Madison	7	
x	Flower Warehouse	4	C	491	491	OC	OO	80	77	8th + Jefferson	7	Housing Opportunity Site DT-38
x	Mexicali Rose	4	N	492	492	OC	OO	100	96	7th/8th/Clay	7	Housing Opportunity Site DT-37
x	Greyhound Site	4		803	69	OC	UT	80	77	San Pablo/Telegraph/21st/19th	7	Housing Opportunity Site DT-20
x	Valdez Area	4	N	504	504	OC	VSA	250	240	24th/27th/Valdez	7	Housing Opportunity Site DT-12
x	Valdez Area	4	N	504	504	OC	VSA	350	336	23rd/24th/Waverly/Harrison	7	Housing Opportunity Site DT-18
x	27th + Broadway	4	N	504	504	OC	VSA	100	96	26th/27th/Broadway	7	Housing Opportunity Site DT-35
	<b>PROJECTS TO BE COMPLETED 2020 - 2025 TOTAL</b>							<b>2,125</b>	<b>2,041</b>			
	<b>TOTAL 2000 - 2025</b>							<b>10,850</b>	<b>9,341</b>			

Notes:

*/a/* 'X' in first column indicates updated assumptions compared to original 11/21/00 Cumulative Scenario. 'XX' indicates updated assumptions for Uptown Project EIR, May 2003.

*/b/* Codes indicate change made for CMA/ABAG P2002 inputs, since 12/02 Scenario for West Oakland Redevelopment Project EIR. C = change in number of units and/or number of households. N = new project added to list. T = change in time period assumed for development and occupancy.

*/c/* Households equal units multiplied by an assumed vacancy factor.

*/d/* Status as of the end of 2002: 1 = completed; 2 = under construction; 3 = approved; 4 = affordable housing project in predevelopment; 5 = other projects in predevelopment; 6 = in planning or part of existing plan; 7 = other housing opportunity site.

*/e/* Housing Opportunity Sites are those identified in Oakland's Draft Housing Element (September 2002). The numbers (e.g., DT-11) are those used in Housing Element tables.

*/f/* YWCA housing for CCAC students, Perkins Residential Care housing for people with Alzheimer's, and UC Berkeley student housing are treated as group quarters in the growth scenario.

*/g/* The total units completed during 2000 were 293 for Acorn Parcels 1, 2, and 3, and 71 for Bayport Village, replacing 480 and 196 original units, respectively, that were removed by 2000.

*/h/* Includes additional housing units and households in the downtown and rest of Oakland Central (OC) planning district as well as along the channel in TAZ 537 (SA).

Source: City of Oakland; Hausrath Economics Group

**TABLE 6  
OAKLAND CUMULATIVE GROWTH SCENARIO  
ASSUMPTIONS FOR COMMERCIAL/INDUSTRIAL PROJECTS IN DOWNTOWN / OAKLAND CENTRAL  
UPTOWN PROJECT EIR - JUNE 2003**

/a/	Project	Time Period	Oakland TAZ	CMA TAZ	Planning District	Subarea	Sq. Ft.	Empls	SF/Emp	Location	Comments
<b>PROJECTS COMPLETED 1990 - 2000</b>											
	City Administration - Wilson Building (office)		486	486	OC	CC	165,430	414	400	14th + Broadway	
x	City Administration - Wilson Building (retail)		486	486	OC	CC	4,000	10	400	14th + Broadway	
	City Administration - Dalziel Building (office only)		487	487	OC	CC	225,710	564	400	Frank Ogawa Plaza	
	City Hall		487	487	OC	CC	80,000	200	400	Frank Ogawa Plaza	
	State Building		488	488	OC	CC	600,000	1,500	400	Clay Street	
	Federal Building		489	489	OC	CC	1,000,000	2,500	400	Clay/12th/14th/Jefferson	
	1111 Broadway		490	490	OC	CC	535,000	1,783	300	1111 Broadway	
	UC Office of the President		497	497	OC	CC	232,500	1,000		Franklin/11th to 12th	
	Tribune Tower		497	497	OC	CC	89,000	297	300	13th + Franklin	
	New County Building		519	519	OC	CM		334		Madison + 11th	
x	115 Broadway Office		767	72	OC	JLD	10,000	29	350	115 Broadway	
x	Kimball's Salsa Club		767	72	OC	JLD	10,000	29	350	mid-blk 2nd/3rd near Washington	
x	Upper Floor Entertainment & Add'l Retail/Restaurant (infill)		796	72	OC	JLD	12,000	32	376	Broadway	
x	415 20th Street (LBL Supercomputer)		74	74	OC	KC	70,000	140	500	415 20th Street	
	Caltrans Building		503	503	OC	KC		1,180		Grand/Webster	
	Warriors Practice Facility		71	71	OC	OO	60,000	20		530 10th Street	
x	Washington & 8th Street (renovation)		71	71	OC	OO	68,000	60		Washington + 8th	
x	Swan's Market		71	71	OC	OO				9th/10th/Clay/Washington	
x	Office		71	71	OC	OO	17,000	49	350		
x	Retail		71	71	OC	OO	25,000	55	450		
x	Rattos + others in area (renovations)		71	71	OC	OO		80		Washington	
	Oakland Ice Center		70	70	OC	UT		35		18th + San Pablo	
x	I. Magnin Building (renovation)		484	484	OC	UT	63,000	210	300	20th + Broadway	
x	Sweets Ballroom - Supper Club		485	485	OC	UT	12,000	15	800	Broadway/19th to 20th	
x	Rehabs/infill for office 17th-19th Blk		485	485	OC	UT		100		17th-19th/Broadway to Telegraph	
<b>PROJECTS TO BE COMPLETED 2000 - 2005</b>											
	Rotunda Building	1	486	486	OC	CC				16th & Broadway	Completed
	Office	1	486	486	OC	CC	187,000	534	350		
	Retail	1	486	486	OC	CC	50,000	111	450		
	17th Street Parking Garage (retail - 500 spaces)	1	486	486	OC	CC	23,000	51	450	16th/17th/San Pablo	Approved
x	City Administration - Wilson Building (retail)	1	486	486	OC	CC	12,800	32	400	Broadway + 14th	
	Lathan Square Building (renovation)	1	486	486	OC	CC	107,000	122		Telegraph + Broadway	Assumes +/- 40%; completed
	City Administration - Dalziel Building (retail)	1	487	487	OC	CC	20,000	44	455	250 Frank Ogawa Plaza	
	Plaza Building	1	487	487	OC	CC	13,000	43	300	Frank Ogawa Plaza	Completed
	518 17th Street (renovation)	1	488	488	OC	CC	32,000	98	325	518 17th St.	
	Old PG&E Building (renovation)	1	488	488	OC	CC	37,685	116	325	Clay + 17th	Completed
	Shorenstein T9 / 555 City Center	1	489	489	OC	CC				11th to 12th/Clay to Jefferson	Completed 2002
	Office	1	489	489	OC	CC	472,500	1,575	300		
	Retail	1	489	489	OC	CC	7,500	25	300		

/a/	Project	Time Period	Oakland TAZ	CMA TAZ	Planning District	Subarea	Sq. Ft.	Empls	SF/Emp	Location	Comments
	Keystone Hotel/Hilton Gardens	1	497	497	OC	CC	214 rooms	140	0.65/rm	11th/12th/Broadway	Approved
	13th and Broadway/Utility Building (renovation)	1	497	497	OC	CC	60,000	200	300	13th + Broadway	Underway / on hold
xx	Oakland Athletic Club - renovation to office	1	499	499	OC	CC	85,500	263	325	1438 Webster	Under construction 2002/03
	1404 Franklin (renovation)	1	500	500	OC	CC	50,000	43		1404 Franklin	
	1111 Jackson (former State Building)	1	519	519	OC	CM	150,000	500	300	1111 Jefferson	Completed
	Courtyard Marriott Hotel	1	496	496	OC	CT	150 rooms	75	0.5/m	9th & Broadway	Completed
	Arioso Mixed Use	1	496	496	OC	CT	5,800	25		900 Broadway/9th	Commercial/88 units; under construction
	Waterfront Plaza Hotel Expansion (incl. 3,100 s.f. confer)	1	72	72	OC	JLD	63 rooms	47	0.75/rm	Jack London Square	Approved
xx	Meadow Commercial (Site C)	1	72	72	OC	JLD				Jack London Square	Predevelopment 2002/2003
xx	Office	1	72	72	OC	JLD	16,000	53	300		
xx	Restaurant	1	72	72	OC	JLD	32,000	160	200		
	Remove Jack London Village	1	736	72	OC	JLD		(81)		Waterfront JLS	Demolition for upcoming new construction
x	Jack London Cinema (seat reduction for stadium seating)	1	767	72	OC	JLD		(5)		Washington/2nd to 3rd	Seats reduced from 2,000 to 1,500; completed
x	Oak Tree Commercial - retail/restaurant/entertainment	1	768	72	OC	JLD	10,000	33	300	Along Embarcadero	Reuse
x	3rd & Broadway Mixed Use (Roscoe's site)	1	768	72	OC	JLD				3rd + Broadway	Approved 2002; Also includes 115 dwelling units
x	Office	1	768	72	OC	JLD	58,000	193	325		
x	Retail/Restaurant	1	768	72	OC	JLD	11,000	40	275		
x	Terranomics - office (conversion and new)	1	795	72	OC	JLD	31,000	78	400	Clay/3rd to 4th	Constructed but not fully occupied 2002; removes lt. Industrial
x	Terranomics - Iguana Amerimex Conversions	1	795	72	OC	JLD					
x	Additional Office	1	795	72	OC	JLD	20,000	57	350	4th/Jefferson/3rd/MLK	Partially converted but not fully occupied 2002
x	Reduced Retail	1	795	72	OC	JLD	(21,000)	(27)		4th/Jefferson/3rd/MLK	
x	Conversion to office	1	795	72	OC	JLD	10,587	35	300	4th + Washington	Government office replaces auto repair use; completed
x	Allegro Housing	1	797	87	OC	JLD	8,500	23	375	3rd and Jackson (2 blocks)	Completed 2001 (13,500 s.f. total commercial)
x	Sierra (former Dreyers)	1	797	87	OC	JLD	16,000	43	375	3rd to 4th / Oak to Madison	Under construction 2002
	New Market Lofts (former Safeway) Housing	1	797	87	OC	JLD					Completed
	Office	1	797	87	OC	JLD	6,500	19	325	4th and Jackson	Ground floor commercial; completed 2002
	Retail/Commercial	1	797	87	OC	JLD	4,500	15	300	4th and Jackson	Ground floor commercial; completed 2002
x	Allegro Housing	1	798	87	OC	JLD	5,000	13	375	2nd to 3rd / Jackson to Madison	Completed 2001 (13,500 s.f. total commercial)
	Telecommunications Access Facility/Mortenson	1	801	481	OC	JLD	120,000	50		3rd/Brush to Castro	Completed
x	Wakefield Rehab (renovation)	1	74	74	OC	KC	68,000	194	350	17th St. / Broadway to Franklin	Renovation underway in 2000; occupied after 2000
xx	20th & Broadway Renovation	1	502	502	OC	KC		200		20th + Broadway	Renovation of existing bank bldg; completed 2002
	Housewives Market	1	491	491	OC	OO	27,500	78	350	8th/9th/Clay/Jefferson	Ground floor commercial; approved
x	Renovations for Office / Ice Center Block	1	70	70	OC	UT	36,000	110	325	510 17th St., 1727 Telegraph, etc.	Completed but not fully occupied; 2002/03
	Sears Building (upper floor office renovation)	1	485	485	OC	UT	180,000	514	350	20th + Broadway	Completed
xx	Floral Depot Block - rehabs to office/commercial/educational	1	485	485	OC	UT	~25,000	71	350	19th / Broadway to Telegraph	
x	Telegraph Gateway	1	469	469	OC	VSA	5,300	14	375	2401 Telegraph	Ground floor commercial; approved
	<b>PROJECTS TO BE COMPLETED 2005 - 2010</b>										
xx	New Police Headquarters / Center	2	488	488	OC	CC	200,000	850		14th/16th/Jefferson/MLK	Moves from current location on Broadway + 7th
	Shorenstein T5/T6	2	490	490	OC	CC				11th/12th/Clay	Approved
	Office	2	490	490	OC	CC	580,000	1,933	300		
	Retail	2	490	490	OC	CC	7,500	25	300		
	14th & Harrison Project	2	498	498	OC	CC	9,000	23	400	14th + Harrison	Ground floor commercial; predevelopment
	1640 Broadway Mixed Use	2	500	500	OC	CC				1640 Broadway	Approved
	Office	2	500	500	OC	CC	177,680	592	300		

Id	Project	Time Period	Oakland TAZ	CMA TAZ	Planning District	Subarea	Sq. Ft.	Empls	SF/Emp	Location	Comments
	Retail	2	500	500	OC	CC	5,400	18	300		
xx	Jackson Center Two	2	519	519	OC	CM	350,000	1,167	300	11th/12th/Alice St.	Predevelopment 2002/2003
xx	Embarcadero & Broadway (Site D)	2	72	72	OC	JLD				Embarcadero + Broadway	Predevelopment 2002/2003
xx	Office	2	72	72	OC	JLD	102,000	339	300		
xx	Retail/entertainment	2	72	72	OC	JLD	71,000	158	450		
xx	Cinema	2	72	72	OC	JLD	1700 seats	27			
	Intensification	2	72	72	OC	JLD		81		Along Water St. and Washington St.	Additional retail / restaurant activity
xx	Site F1 - JLS Phase 2 Area	2	736	72	OC	JLD					Variant 1; predevelopment 2002/03
xx	Office	2	736	72	OC	JLD	134,000	446	300		
xx	Retail	2	736	72	OC	JLD	88,000	196	450		
xx	Restaurant	2	736	72	OC	JLD	33,000	165	200		
xx	Retail/Restaurant	2	736	72	OC	JLD	12,000	34	350		
xx	Site F3 - JLS Phase 2 Area	2	736	72	OC	JLD					Variant 0; predevelopment 2002/03
xx	Hotel	2	736	72	OC	JLD	250 rooms	213	0.85/rm		
xx	Restaurant/Retail	2	736	72	OC	JLD	10,000	39	250		
x	Union Machine Works - retail/off-price retail	2	767	72	OC	JLD	25,000	63	400	2nd/Clay	Adaptive reuse; could convert to office or residential instead
x	Terranomics - retail expansion	2	767	72	OC	JLD	16,000	40	400	3rd/Jefferson	Expansion into parking lot behind
xx	Amtrak Station (Site G)	2	768	72	OC	JLD				Embarcadero/Alice/2nd	Predevelopment 2002/2003
xx	Supermarket	2	768	72	OC	JLD	40,000	67	600		
xx	Parking garage and residential	2	768	72	OC	JLD		13			
x	Office conversion/rehab	2	796	72	OC	JLD	12,000	34	350	4th / Harrison to Alice	Intensification of use in existing space
x	Wheelink Residential - ground floor office	2	797	87	OC	JLD	9,800	30	325	426 Alice	Approved
xx	Bermuda Building	2	502	502	OC	KC	160,000	533	300	21st & Franklin	
xx	20th & Broadway	2	502	502	OC	KC				20th + Broadway	
xx	Office (new)	2	502	502	OC	KC	325,000	1,083	300		Approved
xx	Ground floor retail (new)	2	502	502	OC	KC	11,500	29	400		Approved
	Lake Merritt Tower II	2	503	503	OC	KC	700,000	2,333	300	Harrison + Grand	Approved
	Cox Cadillac Mixed Use	2	505	505	OC	LGA	11,500	29	400	Harrison + Bay Place	Approved
	Grand Ave. Office	2	776	516	OC	LGA	25,000	83	300		
	Old Oakland (infill)	2	71		OC	OO		100			
xx	Uptown project / ground floor commercial	2	70	70	OC	UT	22,000	63	350	Telegraph / 19th to 20th	Predevelopment 2002/2003
xx	Uptown project / residential and parking maint. + mgmt	2	70	70	OC	UT		33		Telegraph/San Pablo/18th/20th	Predevelopment 2002/2003
xx	Fox Theater (renovation)	2	70	70	OC	UT				Telegraph / 18th to 19th	In planning 2002/2003
xx	Cabaret (~650 seats)	2	70	70	OC	UT		40			
xx	Retail/commercial (side bldgs - ground floor)	2	70	70	OC	UT	18,000	51	350		
xx	Office (side bldgs - upper floors)	2	70	70	OC	UT	30,100	93	325		
xx	Berkley Square Project / County Building	2	483	483	OC	UT	111,000	350	Avg. 317	San Pablo / 20th to 21st	Includes office, public service, child care, and ground floor commercial uses; predevelopment 2002/2003
xx	Uptown / U.C. Housing - ground floor commercial	2	483	483	OC	UT	11,000	31	350	Telegraph/20th/21st	Predevelopment 2002/2003
xx	Uptown / U.C. Housing - maint. + mgmt	2	483	483	OC	UT		30		Telegraph/20th/21st	Predevelopment 2002/2003
xx	Relocated Sears Auto Center	2	484	484	OC	UT	10,000	25		Telegraph/20th to 22nd	Predevelopment 2002/2003; to be relocated from TAZ 70
xx	Floral Depot Block - rehabs to office/commercial/educational	2	485	485	OC	UT	-35,000	100	350	19th / Broadway to Telegraph	
xx	Additional Infill / Rehab 17th-19th Blk	2	485	485	OC	UT		70		Broadway to Telegraph / 17th to 19th	
<b>PROJECTS TO BE COMPLETED 2010 - 2020/2025</b>											
	Shorenstein T12	3	489	489	OC	CC	584,000	1,947	300	11th/12th/Jefferson/MLK	

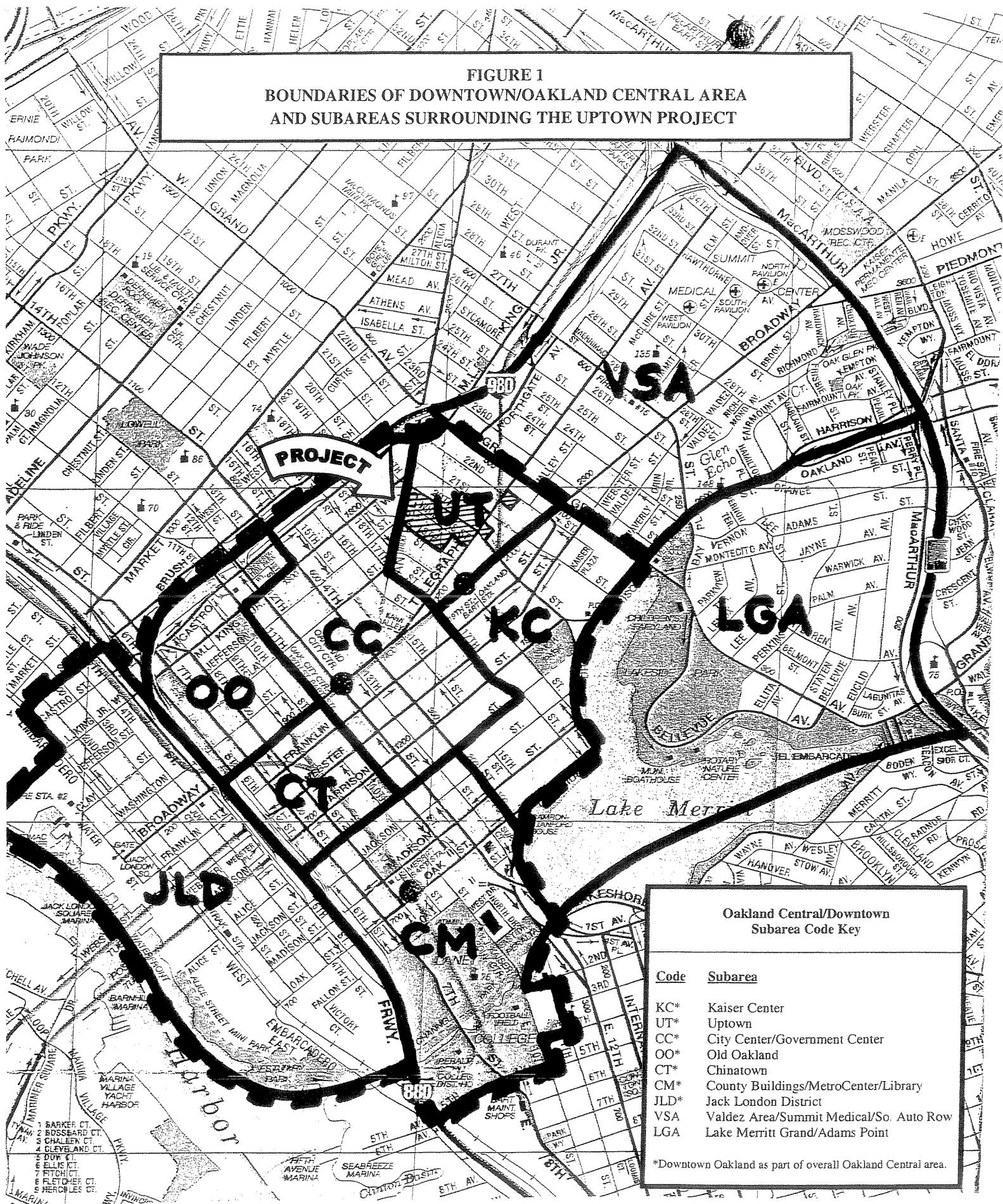
/a/	Project	Time Period	Oakland TAZ	CMA TAZ	Planning District	Subarea	Sq. Ft.	Emps	SF/Emp	Location	Comments
	Additional Tribune Building and others (infill)	3	497	497	OC	CC		457			
	Intensification	3	72	72	OC	JLD		33			Additional upper floor office uses
	Lower Broadway (reuse and/or new development)	3	767	72	OC	JLD					Removes some existing uses/space
	Office	3	767	72	OC	JLD	120,000	369	325		Allocated to TAZ 767 although could be TAZ 795
	Retail/entertainment/restaurant	3	767	72	OC	JLD	25,000	63	400		Allocated to TAZ 767 although could be TAZ 795
	Rehab and/or intensification	3	767	72	OC	JLD				2nd to 3rd / Jefferson to MLK	Marcus Hardware, Griffco, and nearby bldgs
	Retail	3	767	72	OC	JLD	5,000	13	400		Could be intensification of existing space
	Office	3	767	72	OC	JLD	5,000	15	325		
x	Mixed Use - Meyers Plumbing site / office/commercial	3	768	72	OC	JLD	20,000	67	300	2nd/Harrison to Embarcadero	Replaces lt. ind.; ground floor commercial/office
	Conversions - Produce District Bldgs - office/retail/restaurant	3	768	72	OC	JLD	75,000	214	350		Replaces lt. ind.; adds parking
x	Office development (Oak Tree commercial site)	3	768	72	OC	JLD	40,000	123	325	Embarcadero to 2nd / Webster to Franklin	Redevelopment - mid-block area
x	Terranomics - additional offices	3	795	72	OC	JLD	40,000	114	350	3rd to 4th / Jefferson to MLK	Additional conversions/new
x	Office intensification	3	795	72	OC	JLD		33		Clay / 3rd to 4th	Intensification of use in existing space
	Conversions - Produce District Bldgs - office/retail/restaurant	3	796	72	OC	JLD	70,000	200	350		Replaces lt. ind.; adds parking
x	Commercial/office expansion/new	3	797	87	OC	JLD	20,000	57	350	4th + Jackson	Replaces light industrial
x	Commercial/office infill	3	797	87	OC	JLD	15,000	43	350	4th / Madison to Oak	Replaces industrial over longer term
x	Monahan Paper Mixed Use - office/commercial	3	798	87	OC	JLD	20,000	62	325	2nd / Jackson to Madison	Replaces industrial use
x	Office/comm'l in mixed-use development - Miller Meat sites	3	798	87	OC	JLD	40,000	123	325	2nd / Alice to Jackson	Replaces industrial
x	Mixed use development/office/light industrial	3	798	87	OC	JLD	50,000	143	350	2nd to 3rd / Madison to Oak	Replaces industrial
	Conversions / new development for office/commercial use	3	800	481	OC	JLD	60,000	172	350		Replaces light industrial (-74 jobs)
xx	Pavillion 2 (Barnes and Noble site)	3	736	736	OC	JLD					Variant 3; Replaces existing Barnes & Noble bldg.; Predevelopment 2002/2003
xx	Retail	3	736	736	OC	JLD	105,000	233	450		
xx	Restaurant	3	736	736	OC	JLD	15,000	75	2,000		
xx	Water 1 Expansion	3	736	736	OC	JLD					Replaces bldgs in front of Scott's; Predevelopment 2002/2003
xx	Restaurant	3	736	736	OC	JLD	8,000	40	200		
xx	Retail	3	736	736	OC	JLD	20,000	57	350		
xx	Banquet	3	736	736	OC	JLD	12,000	12	1,000		
xx	66 Franklin	3	736	736	OC	JLD					Variant 1; replaces existing bldg.
xx	Office	3	736	736	OC	JLD	109,500	364	300		
xx	Retail/Restaurant	3	736	736	OC	JLD	72,000	206	350		
xx	Site F2 - JLS Phase 2 Area	3	736	736	OC	JLD					Variant 4; Predevelopment 2002/2003
xx	Office	3	736	736	OC	JLD	92,000	306	300		
xx	Retail/Restaurant	3	736	736	OC	JLD	15,000	43	350		
xx	Parking garage	3	736	736	OC	JLD		8			
	Old Oakland (infill)	3	71	71	OC	OO		100			
xx	Additional infill / renovations	3	70	70	OC	UT	20,000	72	325	Telegraph / 17th to 18th	
	Additional infill	3	483	483	OC	UT		70			
xx	Office development (police headquarters site)	3	483	483	OC	UT	200,000	667	300	Broadway + 7th	New office building on police headquarters site; could also be mixed use development
	Additional infill/rehab	3	484	484	OC	UT		110			
	Additional infill/rehab	3	485	485	OC	UT		285			

Notes:

/a/ 'X' in first column indicates updated assumptions compared to original 11/21/00 Cumulative Scenario. 'XX' indicates updated assumptions for Uptown Project EIR, May 2003.

Source: City of Oakland; Port of Oakland; Hausrath Economics Group

**FIGURE 1**  
**BOUNDARIES OF DOWNTOWN/OAKLAND CENTRAL AREA**  
**AND SUBAREAS SURROUNDING THE UPTOWN PROJECT**

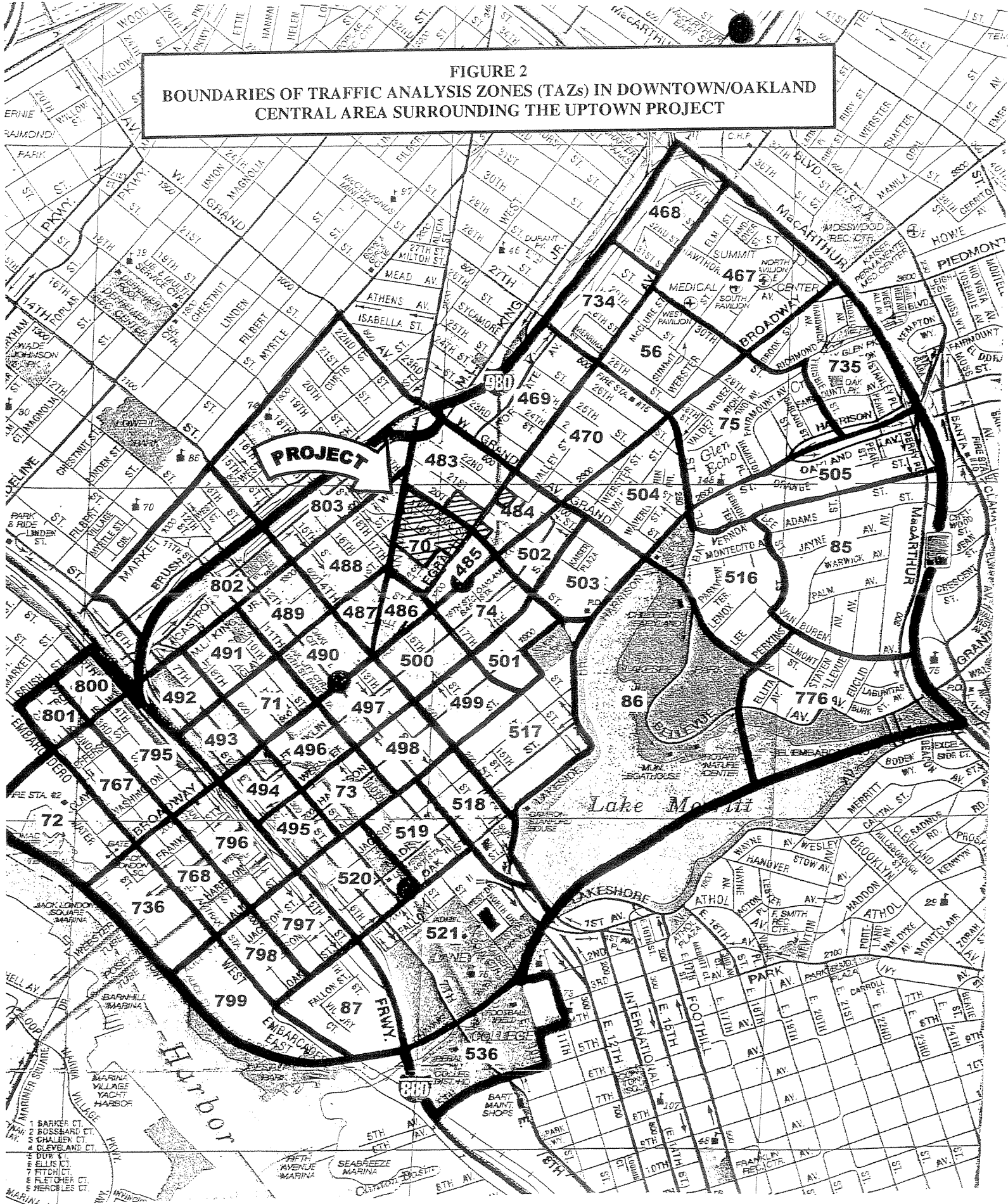


Oakland Central/Downtown Subarea Code Key	
Code	Subarea
KC*	Kaiser Center
UT*	Uptown
CC*	City Center/Government Center
OO*	Old Oakland
CT*	Chinatown
CM*	County Buildings/MetroCenter/Library
JLD*	Jack London District
VSA	Valdez Area/Summit Medical/So. Auto Row
LGA	Lake Merritt Grand/Adams Point

\*Downtown Oakland as part of overall Oakland Central area.



**FIGURE 2**  
**BOUNDARIES OF TRAFFIC ANALYSIS ZONES (TAZs) IN DOWNTOWN/OAKLAND**  
**CENTRAL AREA SURROUNDING THE UPTOWN PROJECT**



Source: Hausrath Economics Group



## BACKGROUND FOR ESTIMATES OF POPULATION AND EMPLOYMENT FOR THE UPTOWN PROJECT

Estimates of population and employment for the proposed Uptown Project were prepared by Hausrath Economics Group (HEG), based on the project description provided by the project developer. This paper presents the estimates of population and employment and provides background on the approach and assumptions upon which they are based.

### PROJECT POPULATION AND EMPLOYMENT ESTIMATES

The population and employment estimates for the proposed Uptown Project are summarized in Table 1. The estimates reflect a long-term, stabilized situation after the project is built and occupied. The estimates assume the mix of housing types proposed for development, as well as the assumption that 25 percent of the apartment units would be affordable housing. For the cumulative transportation analysis, the total project is assumed to be built and occupied by 2010 (the interim analysis year).

TABLE 1 POPULATION AND EMPLOYMENT ESTIMATES FOR PROPOSED UPTOWN PROJECT						
Type	Units	Households/ Occup. Units	Total Residents	Employed Residents	Sq. Ft. Space	Estimated Employment
Apartments	1,000	965	1,737	1,249		
Condominiums	270	260	481	355		
Student / Faculty Housing						
Student Beds	1,000	1,000	1,000	333		
Faculty Units	50	50	100	65		
<b>TOTAL POPULATION</b>			<b>3,318</b>	<b>2,002</b>		
Retail / Commercial					43,000	119
Residential Support					-	63
<b>TOTAL EMPLOYMENT</b>						<b>182</b>
/a/ Forest City Residential West, May 23, 2003.						
Source: Hausrath Economics Group, based on approach and assumptions described in this appendix.						

## PROJECT DESCRIPTION

The proposed project description assumed for estimating population and employment is shown in Table 2. The table identifies traffic analysis zones (TAZs) so that population and employment can be summarized for TAZs as needed for the transportation analysis. (The project occurs in three TAZs used in the Alameda County Congestion Management Agency (CMA) travel demand model.)

TABLE 2 PROPOSED UPTOWN PROJECT DESCRIPTION							
TAZ /a/	Block Bldg /b/	Phase	Stories	Units Number	Units Type	Retail/Comm'l Square Feet	
70	1	1	5	190	Apts.	-	
70	2	1	5	190	Apts.	-	
70	6	1	5	145	Apts.	-	
70	3	2	12	250	Apts.	7,500	
70	4	2	5	225	Apts.	14,500	
	Subtotal			1,000	Apts.	22,000	
70	5	3	19	270	Condos	-	
483	7	1	19-22	1,000	Student beds	11,000	
483	7	1	3	50	Faculty units	-	
484	9 /c/	1	-	-	-	10,000	

/a/ Traffic analysis zone (TAZ) as used in the Alameda County Congestion Management Agency (CMA) travel demand model.  
 /b/ Parcels are identified in the Project Description section of the EIR.  
 /c/ Commercial space for a relocated Sears Auto Center. Block 8 is proposed as an alternate site for this location.

Source: Forest City Residential West, May 23, 2003; Hausrath Economics Group

## BACKGROUND FOR POPULATION ESTIMATES

Data and information considered in developing the population estimates include both those specific to the local area and to the types of housing to be developed, and those reflecting larger citywide and regional demographic patterns and trends. The estimating process progressed from types of housing units to households, households to population, and population to employed population.<sup>1</sup> The background that follows is presented in that same sequence.

<sup>1</sup> Employed population is required for the transportation analysis as input to the CMA travel model.

## Housing Types

The following identify the mix of unit types identified for the project by the project developer.

### ◆ Apartments

30%	Studios	560 sq. ft.
30%	1-bdrm./1-bath	750 sq. ft.
35%	2-bdrm./2-bath	1,130 sq. ft.
5%	3-bdrm./3-bath	1,300 sq. ft.

There could be some townhomes or live/work units developed; these are assumed to fit within the square footages above.

The apartments are proposed to include the following mix of housing affordability:

20%	affordable to very-low-income households earning up to 50% of area median income (AMI)
5%	affordable to moderate-income households earning up to 120% of area median income (AMI)
75%	market-rate units

The same, overall mix of types and sizes of apartment units is assumed to apply for the units in each of the affordability categories.

### ◆ Condominiums

The unit mix for the condominium development is still uncertain. For the purposes of estimating population, the following mix is assumed:

50%	1-bdrm./1-bath	750 sq. ft.
50%	2-bdrm./2-bath	1,130 sq. ft.

All condominium units are assumed to be offered at market-rate prices.

### ◆ Student/Faculty Housing

1,000 beds of student housing. Higher-rise development is anticipated.

50 units for faculty and/or graduate students. Two-bedroom units are assumed, and are likely to be developed as lower-rise, townhomes.

Application of the above assumptions for housing types provides the estimates of residential development by type and size of housing that are shown in Table 3 (see columns on left of table).

### **Households/Occupied Units**

The number of households to occupy the new apartment and condominium units reflects the number of occupied housing units, assuming that there will be some vacancy of units over time. Average, long-term housing vacancy of four percent is assumed for the market-rate apartments and the condominiums, and a vacancy of two percent is assumed for the affordable apartment units. These assumptions are consistent with those used for other new housing in Oakland in the cumulative growth scenario. For comparison, the 2000 Census shows an overall average vacancy for housing in Oakland of 4.3 percent. As the student/faculty housing is assumed to provide badly-needed housing for a growing student body and faculty, no vacancy is assumed.

The estimates of households and occupied units for the project are shown in Table 3. The vacancy assumptions apply to the subtotals and totals shown. They do not apply precisely for every unit type/size category because of the need to produce household estimates in rounded, whole numbers.

### **Population**

Population to reside in the apartment and condominium units was estimated using average household sizes (ratios of persons per household) assumed reasonable for the project based on consideration of the characteristics of the new housing to be built and its appeal to housing consumers in the marketplace.

Both the project's downtown location and the types of higher-density housing to be built are anticipated to attract households with a high proportion of working adults. The project's location offers a downtown setting with proximity to workplaces in downtown Oakland and good transit/transportation accessibility to places of work throughout the region, particularly those in downtown San Francisco and elsewhere in Oakland, Berkeley, and the Inner East Bay. The higher-density, urban product types are anticipated to appeal particularly to adult households including couples, single people, and households of unrelated individuals.

The ratios of persons per household were estimated drawing from a number of sources and relevant project examples and experience, including census data, data and projections from the Association of Bay Area Governments (ABAG), in-house data and information for comparable types of new housing developments, and focus group research done for new downtown housing as part of other efforts. Consideration was also given to the possibility that some townhomes or live/work units may be built, and could have slightly more persons per household than apartment and condominium units.

Except for the studio units, persons per household ratios for the affordable, apartment units assume that the number of persons equals bedrooms plus one, for the housing to be affordable to very-low-income households, as is often the approach used to estimate population in affordable

**TABLE 3  
POPULATION ESTIMATES FOR PROPOSED UPTOWN PROJECT**

Type /a/	Size /a/	Units /a/	Households / Occ'd Units /b/	Persons Per HH /c/	Residents	Employed Residents Percent	Per HH	Total
<b>APARTMENTS</b>								
<u>Market Rate</u>								
Studios	560 sf	225	216	1.10	238	86%	0.95	205
1 bdr/1 bath	750 sf	225	216	1.60	346	81%	1.29	279
2 bdr/2 bath	1,130 sf	262	252	2.10	529	73%	1.54	388
3 bdr/2 bath	1,300 sf	35	36	2.60	94	65%	1.70	61
	Subtotal	750	720	1.68	1,207	77%	1.30	933
<u>Affordable: Moderate Income (up to 120% AMI)</u>								
Studios	560 sf	15	15	1.20	18	83%	1.03	15
1 bdr/1 bath	750 sf	15	15	1.85	28	79%	1.46	22
2 bdr/2 bath	1,130 sf	18	17	2.60	44	68%	1.75	30
3 bdr/2 bath	1,300 sf	2	2	3.40	7	57%	1.87	4
	Subtotal	50	49	1.98	97	73%	1.45	71
<u>Affordable: Very Low Income (up to 50% AMI)</u>								
Studios	560 sf	60	59	1.20	71	79%	0.95	56
1 bdr/1 bath	750 sf	60	59	2.00	118	63%	1.25	74
2 bdr/2 bath	1,130 sf	70	68	3.00	204	49%	1.45	99
3 bdr/2 bath	1,300 sf	10	10	4.00	40	40%	1.60	16
	Subtotal	200	196	2.21	433	57%	1.25	245
Total Apartments		1,000	965	1.80	1,737	72%	1.29	1,249
<b>CONDOMINIUMS</b>								
1 bdr/1 bath	750 sf	135	130	1.60	208	78%	1.25	163
2 bdr/2 bath	1,130 sf	135	130	2.10	273	70%	1.48	192
Total Condominiums		270	260	1.85	481	74%	1.37	355
<b>STUDENT / FACULTY HOUSING</b>								
Student Beds		1,000	1,000	1.00	1,000	33%	0.33	333
Faculty Units 2 bdr/2 bath	1,130 sf	50	50	2.00	100	65%	1.30	65
Total Student/Faculty Housing					1,100			398
<b>TOTAL PROJECT</b>					<b>3,318</b>			<b>2,002</b>

NOTE: Population estimates reflect the possibility that some townhomes or live/work units may be built, within the square footages identified above. Population estimates do not assume units devoted to senior housing.

/a/ Forest City Residential West, May 23, 2003.

/b/ Assumes long-term, average vacancy of approximately four percent for market rate housing and two percent for affordable housing consistent with citywide data. No vacancy is assumed for the student / faculty housing.

/c/ Estimates by Hausrath Economics Group considering Census data, in-house data and information for new housing developments, and data and projections from Association of Bay Area Governments (ABAG) *Projections 2002*. Persons per household for affordable housing assume number of persons equals bedrooms plus one for very low income households, as applicable.

Source: Hausrath Economics Group

housing. Average household sizes for units affordable to moderate-income households were assumed to be smaller, on average, than household sizes for units affordable to very-low-income households, but larger than household sizes for market-rate units of comparable square footages. Population for the student housing is based on the number of beds. Population for the faculty/graduate student housing is assumed to include two persons per unit.

The estimated ratios of persons per household assumed for each type and size of housing are shown in Table 3. Overall, household sizes for the project are estimated to average 1.8 persons per household for the apartment units and 1.85 persons per household for the condominiums.

### **Employed Residents**

The number of employed residents was estimated for the project, considering the share of residents likely to be employed. Several factors were considered, including the characteristics of the new housing and relevant demographic factors and trends.

First, the high proportion of working adults expected to reside in the project indicates that a high percentage of residents would be employed. Second, demographic trends in evidence at the national, state, and regional levels show the aging of the population over time, largely reflecting the aging of the large, baby-boom generation. In the Bay Area, the population of working-age adults is projected to increase in the future as is the population of older adults. Associated with the aging of the population, people are projected to work longer. The high cost of living in the Bay Area, expected changes in the Social Security system, and a healthy regional economy over the longer term will encourage workers to postpone retirement. The regional projections show increases in labor force participation rates in the future, and increases in the region's labor force. Associated with the aging of the population and with increasing labor force participation, a larger percentage of the population is projected to be employed in the future.

The factors considered reasonable for estimating employed residents for the project are shown in Table 3. The shares of employed residents were estimated based on the considerations above, drawing from a number of sources including Census data, ABAG projections, and relevant examples and experience from other projects and other HEG analyses. The average, overall shares of project population that are assumed to be employed are estimated to approximate 72 percent for the apartment units and 74 percent for the condominiums. The percentages are estimated to vary by size of unit as shown.<sup>2</sup> The percentage of the student population assumed to be employed is one-third, based on 2000 Census data for Census Tracts in the vicinity of the U.C. Berkeley campus that include large shares of student population. The percentage for the faculty/graduate student housing is estimated at 65 percent.

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<sup>2</sup> In general, the smaller the unit, the higher the percentage of employed residents, as the person or persons employed and earning income will represent a higher percentage of the people residing in the unit. The ratios used allow for some households with no workers (such as households with retired persons) although only few of such households are anticipated in the project, and no units are assumed to be devoted specifically to senior housing.

## BACKGROUND FOR EMPLOYMENT ESTIMATES

Employment was estimated for the project based on employment density assumptions for the types of space to be built and the types of uses anticipated to occupy the space. The employment density assumptions are consistent with those used for the cumulative growth scenario for Oakland.

Employment of 94 jobs was estimated for the 33,000 square feet of ground-floor retail/commercial space proposed for the project, assuming an average density of 350 square feet per employee, as shown in Table 4. That average employment density reflects a mix of smaller-scale eating and drinking and neighborhood retail and service uses. In addition, 25 jobs are assumed for the relocated Sears Auto Center that is part of the project.

There also will be some on-site employment associated with the management and maintenance of the new housing. Based on the developer's experience with comparable types of projects and on estimates for the student housing, 33 residential-support jobs are estimated to be associated with the apartments and condominiums and 30 jobs with the student/faculty housing.

Overall, on-site employment in the project is estimated at 182 jobs, as shown in Table 4.

<b>TABLE 4 EMPLOYMENT ESTIMATES FOR PROPOSED UPTOWN PROJECT</b>					
TAZ	Block/Bldg	Use	Space	Employment	
70	3, 4	Ground floor retail/commercial /a/	22,000 sq. ft.	63	
70	1, 2, 3, 4, 6	Residential apartments: mgmt and maintenance /b/		26	
70	5	Residential condominiums: mgmt and maintenance		7	
483	7	Ground floor retail/commercial /a/	11,000 sq. ft.	31	
483	7	Student housing: mgmt and maintenance		30	
484	9	Relocated Auto Center	10,000 sq. ft.	25	
<b>TOTAL PROJECT</b>				<b>182</b>	
<p><i>/a/ Assumes a mix of eating and drinking and neighborhood retail and service uses, with an average employment density of 350 sq. ft. per employee.</i></p> <p><i>/b/ Includes on-site employment in leasing office, resident-only gym/rec center, parking garage, etc. Estimates based on input from Forest City Residential West.</i></p> <p>Source: Hausrath Economics Group</p>					

## **NET CHANGES IN POPULATION AND EMPLOYMENT**

Net changes in population and employment as a result of development of the Uptown Project were calculated by subtracting the estimates of existing population and employment in the project area from the estimates for the completed Uptown Project.

### **Existing Uses**

Estimates of population and employment for existing uses in the project area are summarized in Table 5.<sup>3</sup> The population estimates for residential uses are based on 2000 Census block data and Alameda County Assessor's records. The situation in 2003 could be a little different from that in 2000, although the data still appear reasonable. Employment in the project area was estimated based on land and building space information from the City of Oakland and Alameda County Assessor's records, field work in the area, and estimated employment densities. Employment estimates for Census Tracts and traffic zones in the area from ABAG and Oakland's cumulative land use database, provided totals for the larger Uptown area of downtown that were useful in estimating and evaluating employment for the project area.

### **Net Changes**

Net changes in population and employment as a result of development of the Uptown Project are shown in Table 6. Population in the project area would increase by 3,266 residents as a result of the large amount of new housing to be built in the Uptown Project. Employment in the project area would be lower by 66 jobs under the project compared to employment currently estimated for the project area.

### **Comments on Treatment of Student Housing**

Household and population estimates for the Uptown Project count the 1,000 beds of student housing as group quarters, similar to a student dormitory. The student housing is shown separately in Table 6 as is the student population; they are not included in the counts of housing units, households, or household population. Total population for the project includes both the student population and the household population in the apartments, condominiums, and faculty housing in the project.

To distinguish the student population from the population in the apartment and condominium units, citywide totals for Oakland, as presented in summary tables, include the students as group quarters population, similar to the treatment in Table 6. However, the only way to include the student population in the CMA travel model for transportation analysis purposes, is to combine the students with household population. The CMA travel model is not set up to separately accept group quarters population (and the CMA/ABAG projections developed for use in the model do

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<sup>3</sup> The estimates of population and employment for existing uses were developed by Hausrath Economics Group for the purpose of estimating base year conditions in the project area and identifying net changes in population and employment as needed for the cumulative growth scenario and land use database used for transportation analysis for this EIR. Available data and information were used as much as possible. In-depth field work and investigations of individual properties were not done as a part of this effort.



**TABLE 5  
EXISTING USES IN UPTOWN PROJECT AREA**

TAZ	Block / Bldg Site	Residential Uses /a/					Commercial Uses /b/		
		Housing Units	Households	Household Population	Group Qtrs Population	Total Population	Employed Residents	Use(s)	Estimated Employment
70	1	18	14	25	-	25	7	Office, restaurant, spa/massage parlor	21
70	3	-	-	-	-	-	-	Auto repair, parking	15
70	2	15	12	22	5	27	7	Parking, misc., commercial/industrial	5
70	4	-	-	-	-	-	-	Sears Auto Center and parking	22
70	5	-	-	-	-	-	-	Vacant	-
70	6	-	-	-	-	-	-	Parking	-
483	7	<i>/c/</i>	-	-	-	-	-	Retail, newspaper, offices, union halls, parking	177
484	8	-	-	-	-	-	-	Parking	-
484	9	-	-	-	-	-	-	Fast food	8
<b>TOTAL PROJECT AREA</b>		<b>33</b>	<b>26</b>	<b>47</b>	<b>5</b>	<b>52</b>	<b>14</b>		<b>248</b>

/a/ Based on 2000 Census block data and Alameda County Assessor's records. Situation in 2003 could be a little different from that in 2000, as assumed in 2000 base year data in the transportation model used for cumulative analysis.

/b/ Employment estimated based on land and building space information from the City of Oakland and Alameda County Assessor's records, field work, and estimated employment densities.

/c/ Four units identified in Assessor's records assumed not to be available for residence in 2000.

Source: Hausrath Economics Group

**TABLE 6  
NET CHANGES IN POPULATION AND EMPLOYMENT  
FOR PROPOSED UPTOWN PROJECT**

	Residential Uses					Total Population	Employed Residents	Employment
	Housing Units	Households	Household Population	Student Beds	Stud. / Group Population			
Existing Conditions	33	26	47	-	5	52	14	248
Uptown Project	1,320	1,274	2,318	1,000	1,000	3,318	2,002	182
<b>Net Change</b>	<b>+ 1,287</b>	<b>+ 1,248</b>	<b>+ 2,271</b>	<b>+ 1,000</b>	<b>+ 995</b>	<b>+ 3,266</b>	<b>+ 1,988</b>	<b>- 66</b>
<u>With Alternative Treatment of Student Housing as Households and Household Population</u>								
Existing Conditions	33	26	47	-	5	52	14	248
Uptown Project	1,720	1,674	3,318	-	-	3,318	2,002	182
<b>Net Change</b>	<b>+ 1,687</b>	<b>+ 1,648</b>	<b>+ 3,271</b>	<b>-</b>	<b>- 5</b>	<b>+ 3,266</b>	<b>+ 1,988</b>	<b>- 66</b>
<p>NOTE: For most purposes, the student population is identified as group quarters population, as shown in the top part of this table. However, the student population was included as households and household population for transportation modeling purposes (as shown in the lower part of this table) as the CMA travel model does not include group quarters population or total population. Under either approach, the population growth for the project is the same.</p> <p>Source: Hausrath Economics Group, based on the approach and assumptions described in this appendix.</p>								

not include group quarters population or total population). Thus, the student housing and student population were included as households and household population in data inputs for the travel model.

The alternative estimates in the bottom part of Table 6 include the student housing as households and household population, similar to the other new housing in the project and as was done for the travel model runs. The 1,000 beds of student housing are assumed to be provided in 400 housing units that could include a mix of units for one to four students each. The 400 units would be occupied by 400 households with a total household population of 1,000 residents/students. Total population is the same under both this and the former approach.

TABLE 2025-27  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: 18TH ST. BETWEEN SAN PABLO AVE. AND TELEGRAPH AVE.  
NOTES: 2025 CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 1955    SPEED (MPH): 35    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 57.10

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	77.1

TABLE 2025-28  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: 17TH ST. BETWEEN MARTIN LUTHER KING JR. WY. AND JEFFERSON ST.  
NOTES: 2025 CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 6370    SPEED (MPH): 35    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.65

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	79.3	169.3

TABLE 2025-29  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: 17TH ST. BETWEEN JEFFERSON ST. AND SAN PABLO AVE.  
NOTES: 2025 CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 8555      SPEED (MPH): 35      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.93

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	96.2	205.9

TABLE 2025-30  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: 17TH ST. BETWEEN SAN PABLO AVE. AND TELEGRAPH AVE.  
NOTES: 2025 CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 10645      SPEED (MPH): 35      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.88

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	52.6	111.0	238.0

TABLE 2025-31  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: 17TH ST. BETWEEN TELEGRAPH AVE. AND BROADWAY  
NOTES: 2025 CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 9560    SPEED (MPH): 35    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.42

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	103.5	221.7

TABLE 2025 P1  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: MARTIN LUTHER KING JR. WY. NORTH OF 18TH ST.  
NOTES: 2025 PLUS PROJECT CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 18090    SPEED (MPH): 45    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.96

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
56.5	112.7	238.4	511.5

TABLE 2025 P2  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: MARTIN LUTHER KING JR. WY. BETWEEN 18TH ST. AND 17TH ST.  
NOTES: 2025 PLUS PROJECT CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 5265      SPEED (MPH): 45      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.59

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	107.0	225.8

TABLE 2025 P3  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 9/10/2003  
ROADWAY SEGMENT: SAN PABLO AVE. BETWEEN GRAND AVE. AND 20TH ST.  
NOTES: 2025 PLUS PROJECT CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 17215      SPEED (MPH): 45      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.74

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	109.2	230.8	495.0

TABLE 2025 P4  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: SAN PABLO AVE. NORTH OF 20TH ST.  
NOTES: 2025 PLUS PROJECT CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 16810    SPEED (MPH): 45    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.64

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	107.6	227.2	487.3

TABLE 2025 P5  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: SAN PABLO AVE. BETWEEN 20TH ST. AND WILLIAMS ST.  
NOTES: 2025 PLUS PROJECT CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 9655    SPEED (MPH): 45    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.23

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	76.3	157.9	337.1



TABLE 2025 P6  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: SAN PABLO AVE. BETWEEN WILLIAMS ST. AND 19TH ST.  
NOTES: 2025 PLUS PROJECT CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 10410      SPEED (MPH): 45      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.56

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	79.9	165.9	354.4

TABLE 2025 P7  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: SAN PABLO AVE. BETWEEN 19TH ST. AND 18TH ST.  
NOTES: 2025 PLUS PROJECT CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 8700      SPEED (MPH): 45      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.78

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	71.7	147.6	314.6



TABLE 2025 P10  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: TELEGRAPH AVE. BETWEEN 20TH ST. AND WILLIAMS ST.  
NOTES: 2025 PLUS PROJECT CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 21040    SPEED (MPH): 45    GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.61

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
61.4	124.1	263.4	565.6

TABLE 2025 P11  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: TELEGRAPH AVE. BETWEEN WILLIAMS ST. AND 19TH ST.  
NOTES: 2025 PLUS PROJECT CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 17570    SPEED (MPH): 45    GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.83

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
55.6	110.6	233.9	501.7

TABLE 2025 P12  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: TELEGRAPH AVE. BETWEEN 19TH ST. AND 18TH ST.  
NOTES: 2025 PLUS PROJECT CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 12205      SPEED (MPH): 45      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.25

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	88.1	184.1	393.9

TABLE 2025 P13  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: TELEGRAPH AVE. BETWEEN 18TH ST. AND 17TH ST.  
NOTES: 2025 PLUS PROJECT CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 12815      SPEED (MPH): 45      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.46

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	90.8	190.1	406.8

TABLE 2025 P14  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: BROADWAY SOUTH OF GRAND AVE.  
NOTES: 2025 PLUS PROJECT CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 21750    SPEED (MPH): 45    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.76

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
62.6	126.8	269.3	578.2

TABLE 2025-15  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: BROADWAY NORTH OF 20TH ST.  
NOTES: 2025 PLUS PROJECT CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 13470    SPEED (MPH): 45    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.67

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	93.6	196.4	420.5

TABLE 2025 P16  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: BROADWAY BETWEEN 20TH ST. AND 19TH ST.  
NOTES: 2025 PLUS PROJECT CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 14775    SPEED (MPH): 45    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.08

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	99.2	208.7	447.2

TABLE 2025 P17  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: BROADWAY BETWEEN 19TH ST. AND 17TH ST.  
NOTES: 2025 PLUS PROJECT CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 14315    SPEED (MPH): 45    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.94

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	97.2	204.4	437.9

TABLE 2025 P18  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: GRAND AVE. BETWEEN SAN PABLO AVE. AND NORTHGATE AVE.  
NOTES: 2025 PLUS PROJECT CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 25440      SPEED (MPH): 45      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.44

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
68.5	140.3	298.7	641.8

TABLE 2025 P19  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: GRAND AVE. BETWEEN NORTHGATE AVE. AND TELEGRAPH AVE.  
NOTES: 2025 PLUS PROJECT CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 20950      SPEED (MPH): 45      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.59

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
61.3	123.8	262.7	564.0

TABLE 2025 P20  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: GRAND AVE. BETWEEN TELEGRAPH AVE. AND BROADWAY  
NOTES: 2025 PLUS PROJECT CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 23540      SPEED (MPH): 45      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.10

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
65.5	133.4	283.8	609.5

TABLE 2025 P21  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: 20TH ST. BETWEEN SAN PABLO AVE. AND TELEGRAPH AVE.  
NOTES: 2025 PLUS PROJECT CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 6960      SPEED (MPH): 45      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.81

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	63.0	127.8	271.4



TABLE 2025 P22  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: 20TH ST. BETWEEN TELEGRAPH AVE. AND BROADWAY  
NOTES: 2025 PLUS PROJECT CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 7420    SPEED (MPH): 45    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.08

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	65.4	133.2	283.2	

TABLE 2025 P23  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: WILLIAMS ST. BETWEEN SAN PABLO AVE. AND TELEGRAPH AVE.  
NOTES: 2025 PLUS PROJECT CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 5185    SPEED (MPH): 35    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.34

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	68.6	147.4	

TABLE 2025 P24  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: 19TH ST. BETWEEN SAN PABLO AVE. AND TELEGRAPH AVE.  
NOTES: 2025 PLUS PROJECT CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 11875    SPEED (MPH): 35    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.94

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	55.5	118.9	255.9

TABLE 2025 P25  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: 19TH ST. BETWEEN TELEGRAPH AVE. AND BROADWAY  
NOTES: 2025 PLUS PROJECT CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 14945    SPEED (MPH): 35    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.94

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	64.6	138.6	298.3

TABLE 2025 P26  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: 18TH ST. BETWEEN MARTIN LUTHER KING JR. WAY AND SAN PABLO AVE.  
NOTES: 2025 PLUS PROJECT CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 6535    SPEED (MPH): 35    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.35

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	ROADWAY CENTERLINE TO CNEL		
	70 CNEL	65 CNEL	60 CNEL
0.0	0.0	80.0	172.0

TABLE 2025 P27  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: 18TH BETWEEN SAN PABLO AVE. AND TELEGRAPH AVE.  
NOTES: 2025 PLUS PROJECT CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 2510    SPEED (MPH): 35    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 58.19

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	ROADWAY CENTERLINE TO CNEL		
	70 CNEL	65 CNEL	60 CNEL
0.0	0.0	0.0	91.0

TABLE 2025 P28  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: 17TH BETWEEN MARTIN LUTHER KING JR. WAY AND JEFFERSON ST.  
NOTES: 2025 PLUS PROJECT CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 7540      SPEED (MPH): 35      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.39

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	88.5	189.3

TABLE 2025 P29  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: 17TH ST. BETWEEN JEFFERSON ST. AND SAN PABLO AVE.  
NOTES: 2025 PLUS PROJECT CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 9840      SPEED (MPH): 35      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.54

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	105.4	225.9

TABLE 2025 P30  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: 17TH ST. BETWEEN SAN PABLO AVE. AND TELEGRAPH AVE.  
NOTES: 2025 PLUS PROJECT CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 11040    SPEED (MPH): 35    GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.04

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	53.9	113.7	243.9

TABLE 2025 P31  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: 17TH ST. BETWEEN TELEGRAPH AVE. AND BROADWAY  
NOTES: 2025 PLUS PROJECT CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 9910    SPEED (MPH): 35    GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.57

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	105.9	227.0



TABLE E3  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: SAN PABLO AVE. SOUTH OF GRAND  
NOTES: EXISTING CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 10520    SPEED (MPH): 45    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.60

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	80.4	167.0	356.9

TABLE E4  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: SAN PABLO AVE. NORTH OF 20TH ST.  
NOTES: EXISTING CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 12650    SPEED (MPH): 45    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.40

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	90.0	188.5	403.4

TABLE E5  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: SAN PABLO AVE. BETWEEN 20TH ST. AND WILLIAM ST.  
NOTES: EXISTING CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 8160    SPEED (MPH): 45    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.50

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	69.1	141.6	301.6

TABLE E6  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: SAN PABLO AVE. BETWEEN WILLIAM ST. AND 19TH ST.  
NOTES: EXISTING CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 6565    SPEED (MPH): 45    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.55

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	61.0	123.1	261.1



TABLE E7  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: SAN PABLO AVE. BETWEEN 19TH ST. AND 18TH ST.  
NOTES: EXISTING CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 4995    SPEED (MPH): 45    GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.37

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	103.5	218.1	

TABLE E8  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: SAN PABLO AVE. BETWEEN 18TH ST. AND 17TH ST.  
NOTES: EXISTING CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 4575    SPEED (MPH): 45    GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.98

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	97.9	205.8	

TABLE E9  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: TELEGRAPH AVE. BETWEEN GRAND AVE. AND 20TH ST.  
NOTES: EXISTING CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 10525    SPEED (MPH): 45    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.60

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	80.4	167.1	357.0

TABLE E10  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: TELEGRAPH AVE. BETWEEN 20TH ST AND WILLIAM ST.  
NOTES: EXISTING CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 9605    SPEED (MPH): 45    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.21

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	76.1	157.4	336.0

TABLE E11  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: TELEGRAPH AVE. BETWEEN WILLIAM ST. AND 19TH ST.  
NOTES: EXISTING CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 8770      SPEED (MPH): 45      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.81

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	72.1	148.4	316.3

TABLE E12  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: TELEGRAPH AVE. BETWEEN 19TH ST. AND 18TH ST.  
NOTES: EXISTING CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 8125      SPEED (MPH): 45      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.48

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	68.9	141.2	300.7

TABLE E13  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: TELEGRAPH AVE. BETWEEN 18TH ST. AND 17TH ST.  
NOTES: EXISTING CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 7940      SPEED (MPH): 45      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.38

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	68.0	139.1	296.1	

TABLE E14  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: BROADWAY SOUTH OF GRAND AVE.  
NOTES: EXISTING CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 28990      SPEED (MPH): 45      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.00

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
74.0	152.7	325.7	700.1	

TABLE E15  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: BROADWAY NORTH OF 20TH ST.  
NOTES: EXISTING CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 12310      SPEED (MPH): 45      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.28

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	88.5	185.1	396.1

TABLE E16  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: BROADWAY BETWEEN 20TH ST. AND 19TH ST.  
NOTES: EXISTING CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 12065      SPEED (MPH): 45      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.20

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	87.4	182.7	390.9

TABLE E17  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: BROADWAY BETWEEN 19TH ST. AND 17TH ST.  
NOTES: EXISTING CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 12005      SPEED (MPH): 45      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.17

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	87.2	182.1	389.6

TABLE E18  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: GRAND AVE. BETWEEN SAN PABLO AVE. AND NORTHGATE AVE.  
NOTES: EXISTING CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 17000      SPEED (MPH): 45      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.69

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	108.4	228.9	490.9

TABLE E19  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: GRAND AVE. BETWEEN NORTHGATE AVE. AND TELEGRAPH AVE.  
NOTES: EXISTING CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 19105    SPEED (MPH): 45    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.19

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
58.2	116.7	247.2	530.4

TABLE E20  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: GRAND AVE. BETWEEN TELEGRAPH AVE. AND BROADWAY  
NOTES: EXISTING CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 16000    SPEED (MPH): 45    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.42

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	104.3	219.9	471.5

TABLE E21  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: 20TH AVE. BETWEEN SAN PABLO AVE. AND TELEGRAPH AVE.  
NOTES: EXISTING CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 2930      SPEED (MPH): 45      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.05

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	74.5	153.8

TABLE E22  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: 20TH AVE. BETWEEN TELEGRAPH AVE. AND BROADWAY  
NOTES: EXISTING CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 6410      SPEED (MPH): 45      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.45

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	60.2	121.2	257.0



TABLE E23  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: WILLIAM ST. BETWEEN SAN PABLO AVE. AND TELEGRAPH AVE.  
NOTES: EXISTING CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 740      SPEED (MPH): 35      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 52.89

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	0.0

TABLE E24  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: 19TH ST. BETWEEN SAN PABLO AVE. AND TELEGRAPH AVE.  
NOTES: EXISTING CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 6510      SPEED (MPH): 35      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.33

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	79.8	171.5

TABLE E25  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: 19TH ST. BETWEEN TELEGRAPH AVE. AND BROADWAY  
NOTES: EXISTING CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 6960      SPEED (MPH): 35      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.62

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	83.4	179.3

TABLE E26  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: 18TH ST. BETWEEN MARTIN KING JR. WY. AND SAN PABLO AVE.  
NOTES: EXISTING CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 3765      SPEED (MPH): 35      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.95

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	55.6	119.2

TABLE E27  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: 18TH ST. BETWEEN SAN PABLO AVE. AND TELEGRAPH AVE.  
NOTES: EXISTING CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 1180    SPEED (MPH): 35    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 54.91

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	55.2

TABLE E28  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: 17TH ST. BETWEEN MARTIN LUTHER KING JR. WY. AND JEFFERSON ST.  
NOTES: EXISTING CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 5125    SPEED (MPH): 35    GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12    SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.71

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	68.9	146.6

TABLE E29  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: 17TH ST. BETWEEN JEFFERSON ST. AND SAN PABLO AVE.  
NOTES: EXISTING CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 6685      SPEED (MPH): 35      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.86

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	81.8	174.8

TABLE E30  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: 17TH BETWEEN SAN PABLO AVE. AND TELEGRAPH AVE.  
NOTES: EXISTING CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 6240      SPEED (MPH): 35      GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.56

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	78.2	167.0

TABLE E31  
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 8/8/2003  
ROADWAY SEGMENT: 17TH ST. BETWEEN TELEGRAPH AVE. AND BROADWAY  
NOTES: EXISTING CONDITIONS

\* \* ASSUMPTIONS \* \*

AVERAGE DAILY TRAFFIC: 5440      SPEED (MPH): 35      GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES  
DAY                  EVENING                  NIGHT

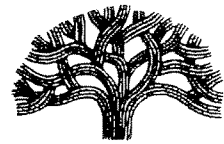
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12      SITE CHARACTERISTICS: SOFT

\* \* CALCULATED NOISE LEVELS \* \*

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.97

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	71.6	152.5



250 FRANK H. OGAWA PLAZA, SUITE 3330 • OAKLAND, CALIFORNIA 94612-2032

Community and Economic Development Agency  
 Planning & Zoning Services Division

(510) 238-3941  
 FAX (510) 238-6538  
 TDD (510) 839-6451

**COMBINED NOTICE OF AVAILABILITY OF  
 THE DRAFT ENVIRONMENTAL IMPACT REPORT AND  
 NOTICE OF PUBLIC HEARINGS ON THE UPTOWN MIXED-USE PROJECT**

**PROJECT TITLE:** Uptown Mixed-Use Project

**CASE NO:** ER03-0007

**PROJECT SPONSOR:** Uptown Partners, LLC c/o Forest City Residential West

**PROJECT LOCATION:** The project site is located on a nine block, 15-acre site in the Uptown District of the City of Oakland, California. Blocks 1-6 are generally bounded by Thomas L. Berkley Way (20<sup>th</sup> Street) on the north, Telegraph Avenue on the east, 18<sup>th</sup> Street on the south, and San Pablo Avenue on the west. The Fox Theater is not a part of the project site. Blocks 7 and 8 are located on the north side of Thomas L. Berkley Way (20<sup>th</sup> Street); Block 7 is west of Telegraph Avenue and Block 8 is east of Telegraph Avenue. Block 9 is located on the southeastern corner of Telegraph Avenue and 22<sup>nd</sup> Street.

**BRIEF DESCRIPTION OF PROJECT:** The proposed project entails the construction of approximately 1000 apartments and 270 condominiums; 1,050 student beds/faculty units; 43,000 square feet of commercial space; 1,959 parking spaces; and a 25,000 square foot public park.

**ENVIRONMENTAL REVIEW:** Based on the preliminary project description, it was determined that the project may have significant environmental impacts. A focused **Draft Environmental Impact Report (DEIR)** was then prepared for the above project, under the requirements of the California Environmental Quality Act (CEQA), pursuant to Public Resources Code Section 21159.25.

The DEIR analyzes potentially significant impacts in the following environmental categories: land use plans and policies; population, employment, and housing; hydrology and flooding; transportation, circulation, and parking; air quality; noise; hazardous materials; infrastructure and utilities; paleontological and cultural resources; visual and aesthetic resources/shade and shadow analysis; and wind. Copies of this document are available for review or distribution to interested parties at no charge at the Community and Economic Development Agency, Planning Division, 250 Frank H. Ogawa Plaza, Suite 3330, Oakland, CA 94612, Monday through Friday, 8:30 a.m. to 5:00 p.m.

**PUBLIC HEARINGS:** The Oakland Landmark Preservation Advisory Board will conduct a public hearing on the project on October 6, 2003, at 4:00 p.m. in Hearing Room 1, City Hall, One City Hall Plaza. The Oakland City Planning Commission will conduct a public hearing on the DEIR and the zoning permits for the project on October 15, 2003, at 6:30 p.m. in Hearing Room 1, City Hall, One City Hall Plaza. Public comments are invited on the DEIR and the zoning permits for the project. Comments on the DEIR should focus on the sufficiency of the DEIR in discussing possible impacts on the environment, ways in which adverse effects might be minimized, and alternatives to the project in light of the EIR's purpose to provide useful and accurate information about such factors.

Comments may be made at the public hearing described above, or in writing. There is no fee for commenting, and all comments received will be considered by the City prior to finalizing the EIR and making a decision on the project. Written comments on the DEIR and the zoning permits should be sent to the attention of Lynn Warner, Planner IV, City of Oakland Community and Economic Development Agency, Planning Division, 250 Frank H. Ogawa Plaza, Suite 3330, Oakland, CA 94612, no later than 4:00 p.m. on Monday, November 3, 2003. If you challenge the environmental document or any discretionary permits in court you may be limited to raising only those issues raised at the City Planning Commission public hearing described above, or in written correspondence received by the Community and Economic Development Agency on or prior to November 3, 2003. The Planning Commission will consider certification of a Final Environmental Impact Report (FEIR) for the project and render a decision on the zoning permits for the project at a later meeting date to be determined. For further information, please call Lynn Warner, at (510) 238-3941.

Claudia Cappio  
 Director of Planning and Zoning  
 Date: September 19, 2003

**APPENDIX E**  
**TRANSPORTATION, CIRCULATION, AND PARKING DATA**

*Appendix E is included in a separately bound document, available at the City of Oakland Community and Economic Development Agency, Suite 3330, 250 Frank H. Ogawa Plaza, Oakland*

PUBLIC REVIEW DRAFT

UPTOWN MIXED USE PROJECT  
ENVIRONMENTAL IMPACT REPORT

APPENDIX E: TRANSPORTATION,  
CIRCULATION, AND PARKING DATA

STATE CLEARINGHOUSE NO. 200052070

LSA

September 2003



PUBLIC REVIEW DRAFT

UPTOWN MIXED USE PROJECT  
ENVIRONMENTAL IMPACT REPORT

APPENDIX E: TRANSPORTATION,  
CIRCULATION, AND PARKING DATA

STATE CLEARINGHOUSE NO. 200052070

Submitted to the:

City of Oakland  
Community and Economic Development Agency  
250 Frank H. Ogawa Plaza  
Suite 3330  
Oakland, CA 94612

Prepared by:

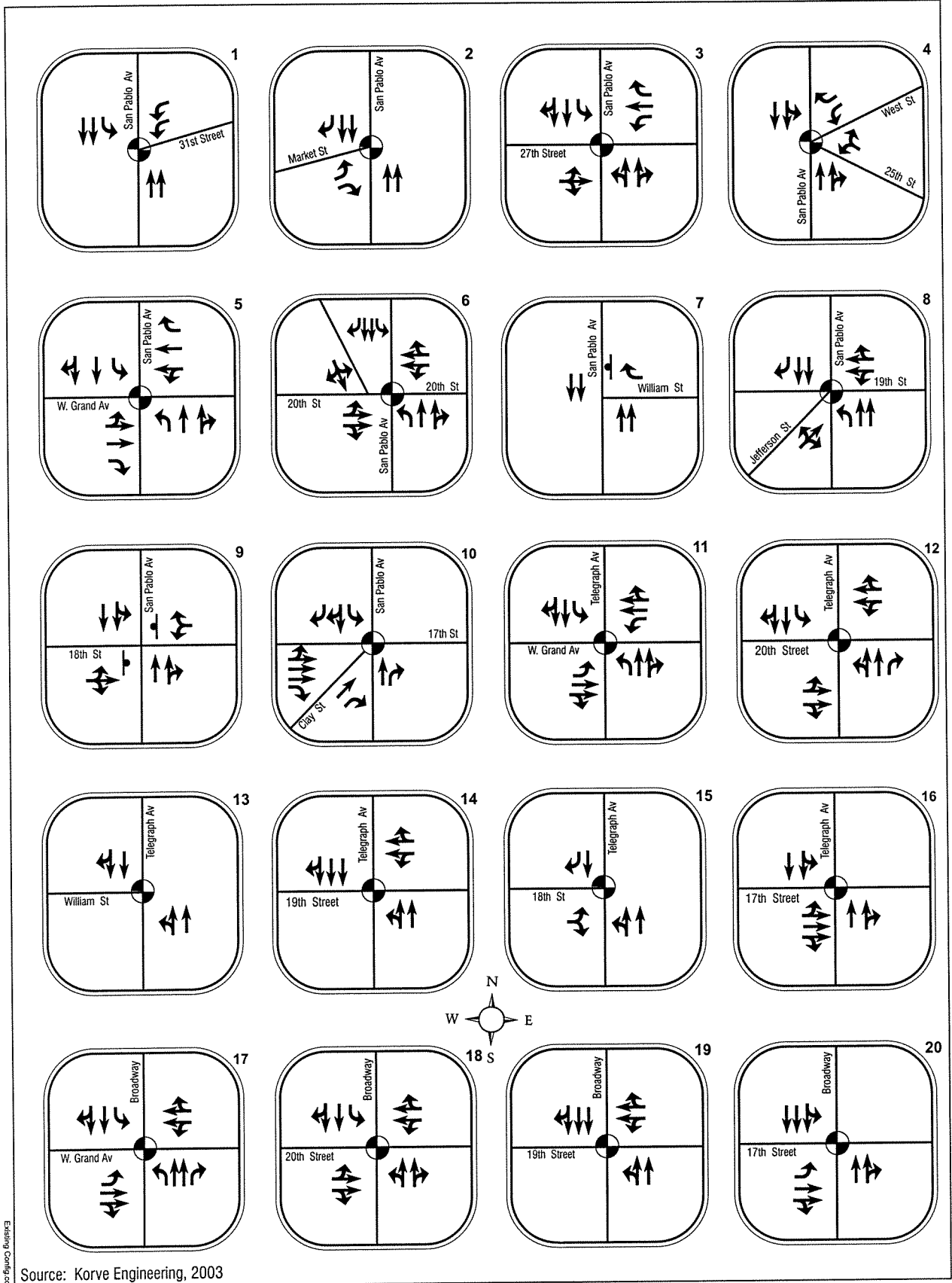
LSA Associates, Inc.  
2215 Fifth Street  
Berkeley, CA 94710  
(510) 540-7331

LSA

September 2003

**APPENDIX E**  
**TRANSPORTATION, CIRCULATION, AND PARKING DATA**

TRAFFIC IMPACT ANALYSIS  
TECHNICAL APPENDIX



Existing Configs.cdr




Source: Korve Engineering, 2003

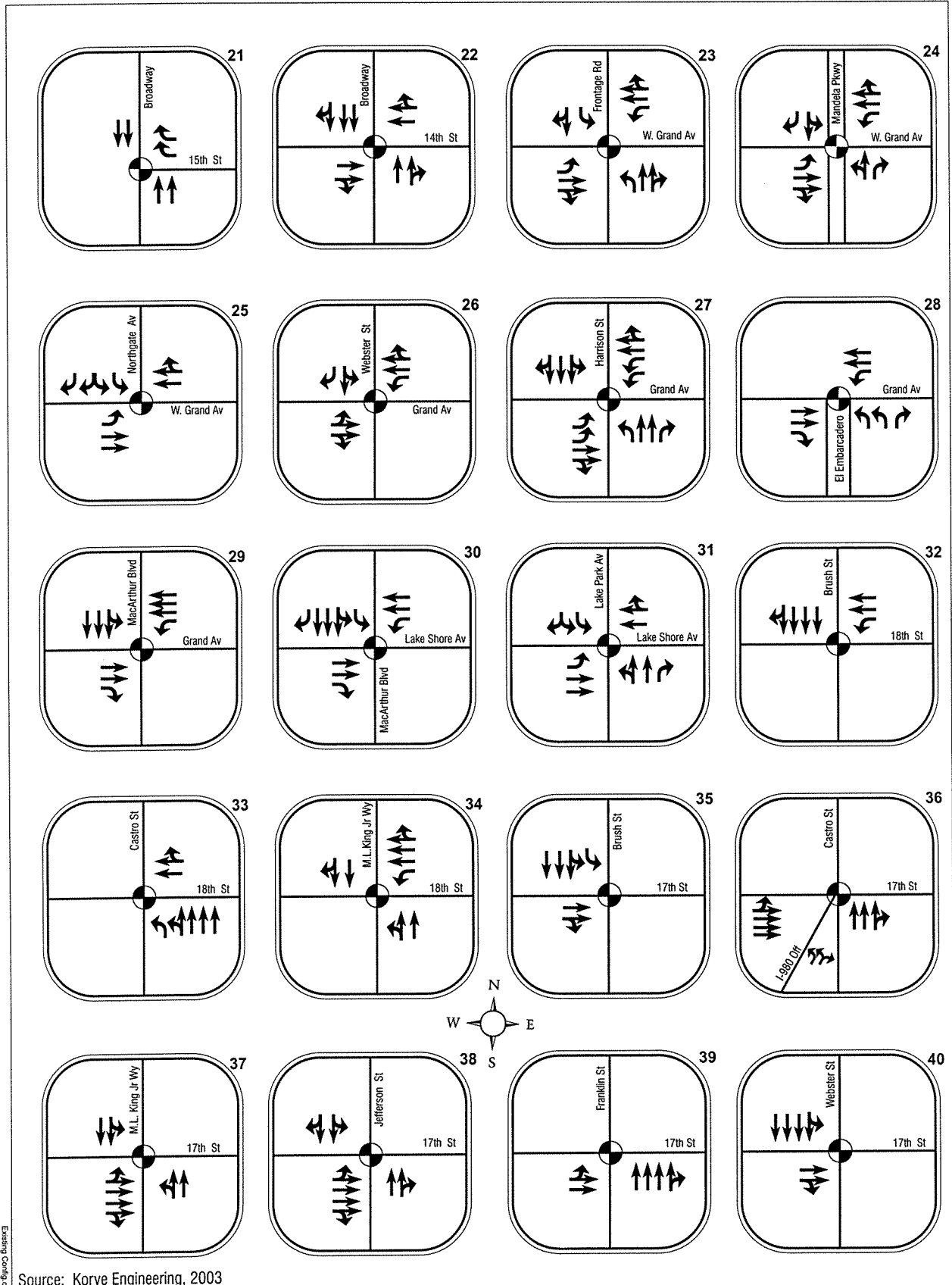
OAKLAND UPTOWN

**Figure 1A**

**EXISTING LANE GEOMETRY and TRAFFIC CONTROL**

**LEGEND**

-  - Signalized Intersection
-  - Stop Sign
-  - Free Right Turn



Existing Config.cdr



Source: Korve Engineering, 2003

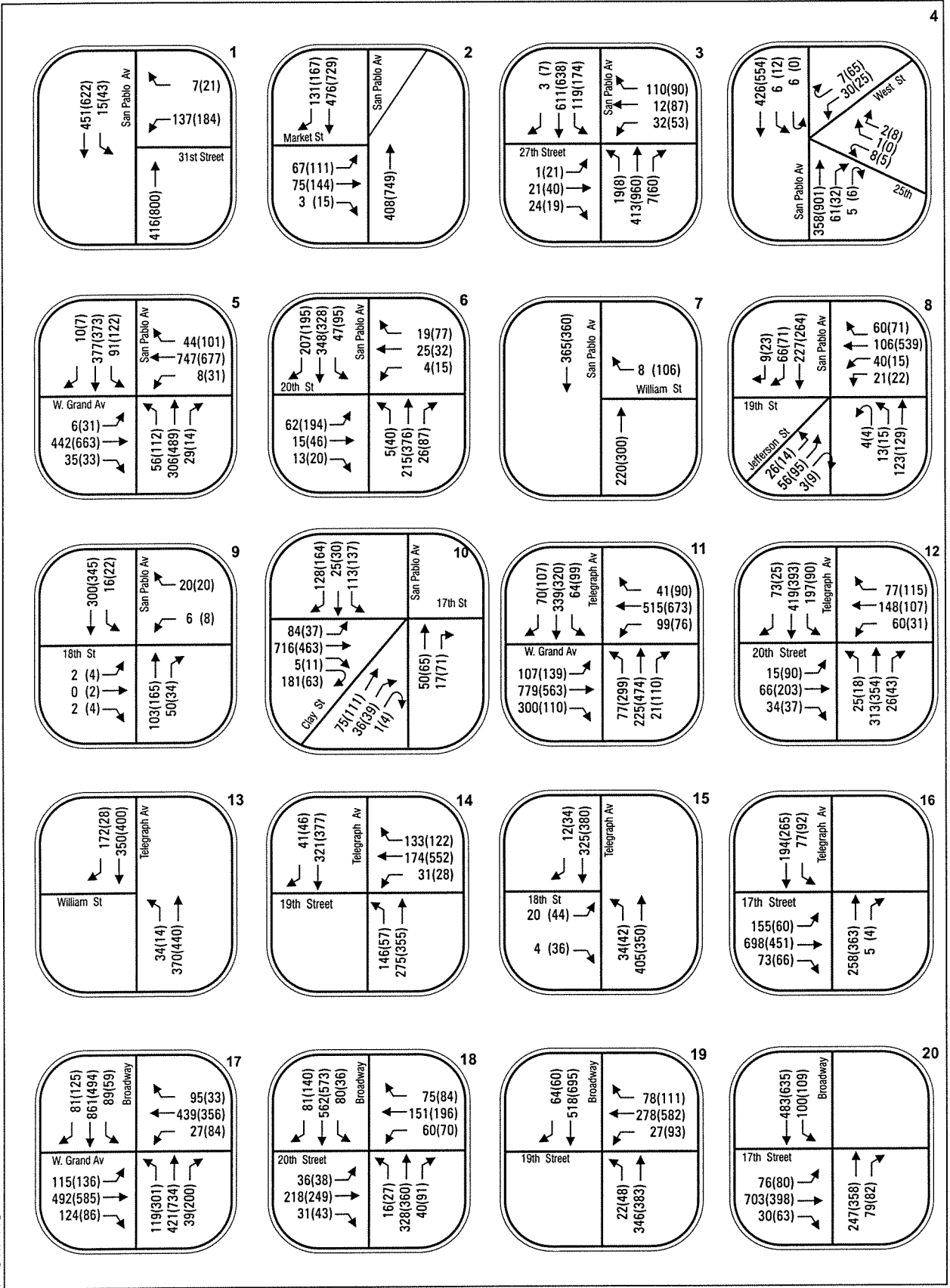
OAKLAND UPTOWN

**Figure 1B**

**EXISTING LANE GEOMETRY and TRAFFIC CONTROL**

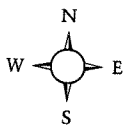
**LEGEND**

-  - Signalized Intersection
-  - Stop Sign
- FREE** - Free Right Turn Lane



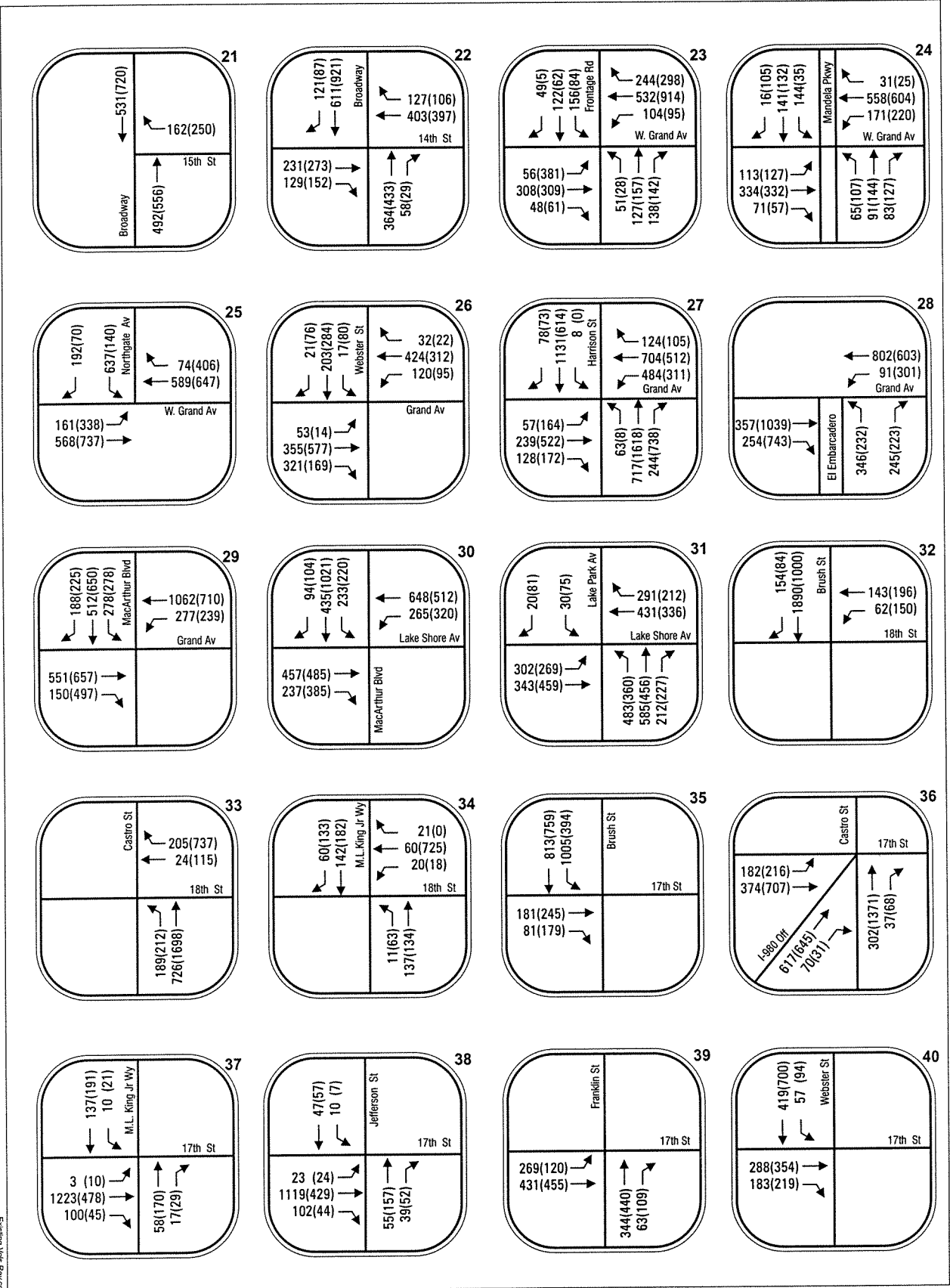
Existing Vols Revised

Data Source: City of Oakland, West Oakland  
Redevelopment Plan, 2003;  
Korve Engineering, 2001-2003

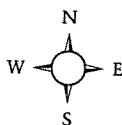


OAKLAND UPTOWN

**Figure 2A**  
**EXISTING TRAFFIC VOLUMES**  
**AM (PM) Peak Hour**



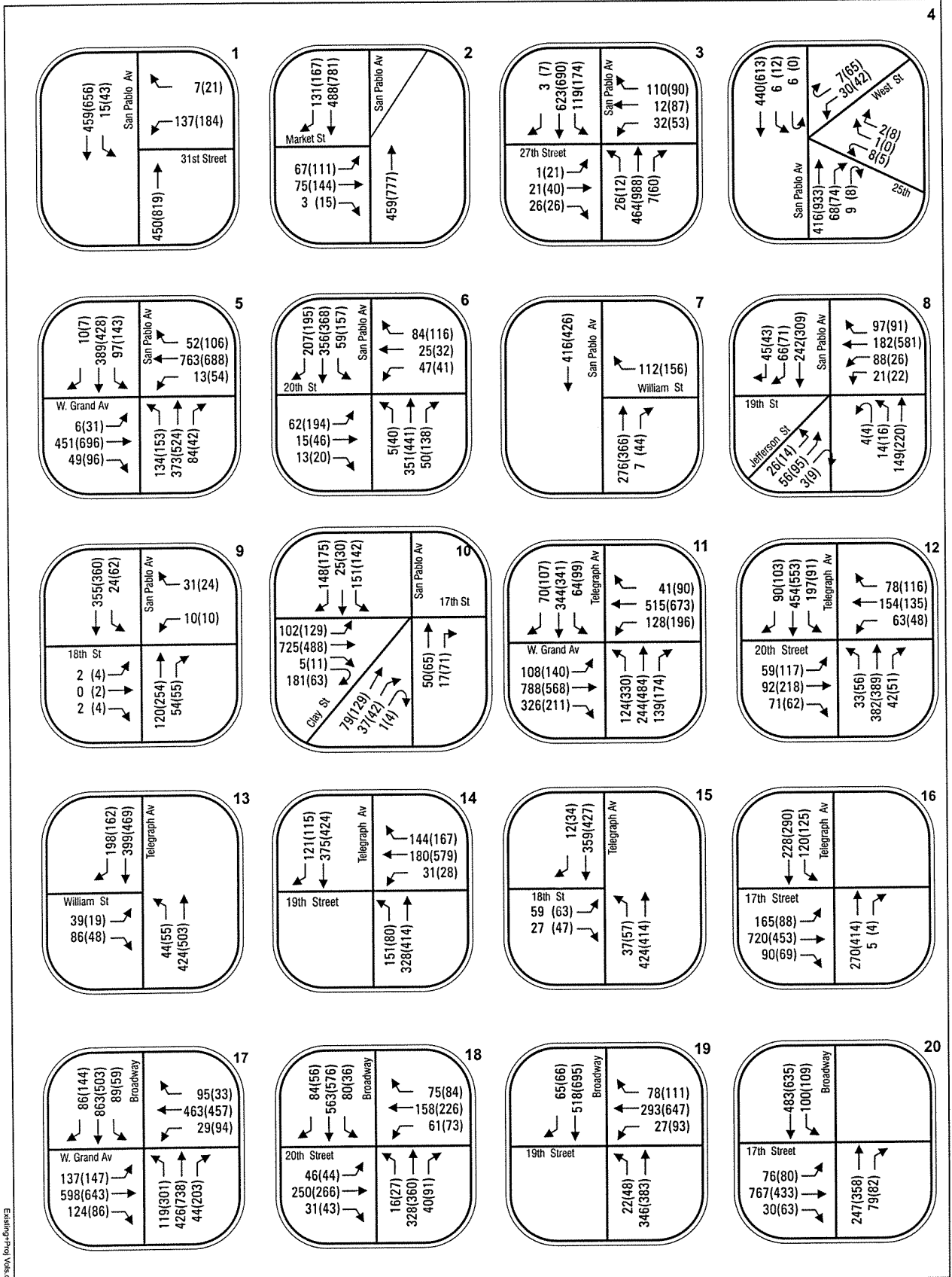
Data Source: City of Oakland, West Oakland  
Redevelopment Plan, 2003;  
Korve Engineering, 2001-2003



OAKLAND UPTOWN

**Figure 2B**

**EXISTING TRAFFIC VOLUMES  
AM (PM) Peak Hour**

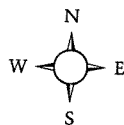


SOURCE: Korve Engineering, 2003

OAKLAND UPTOWN

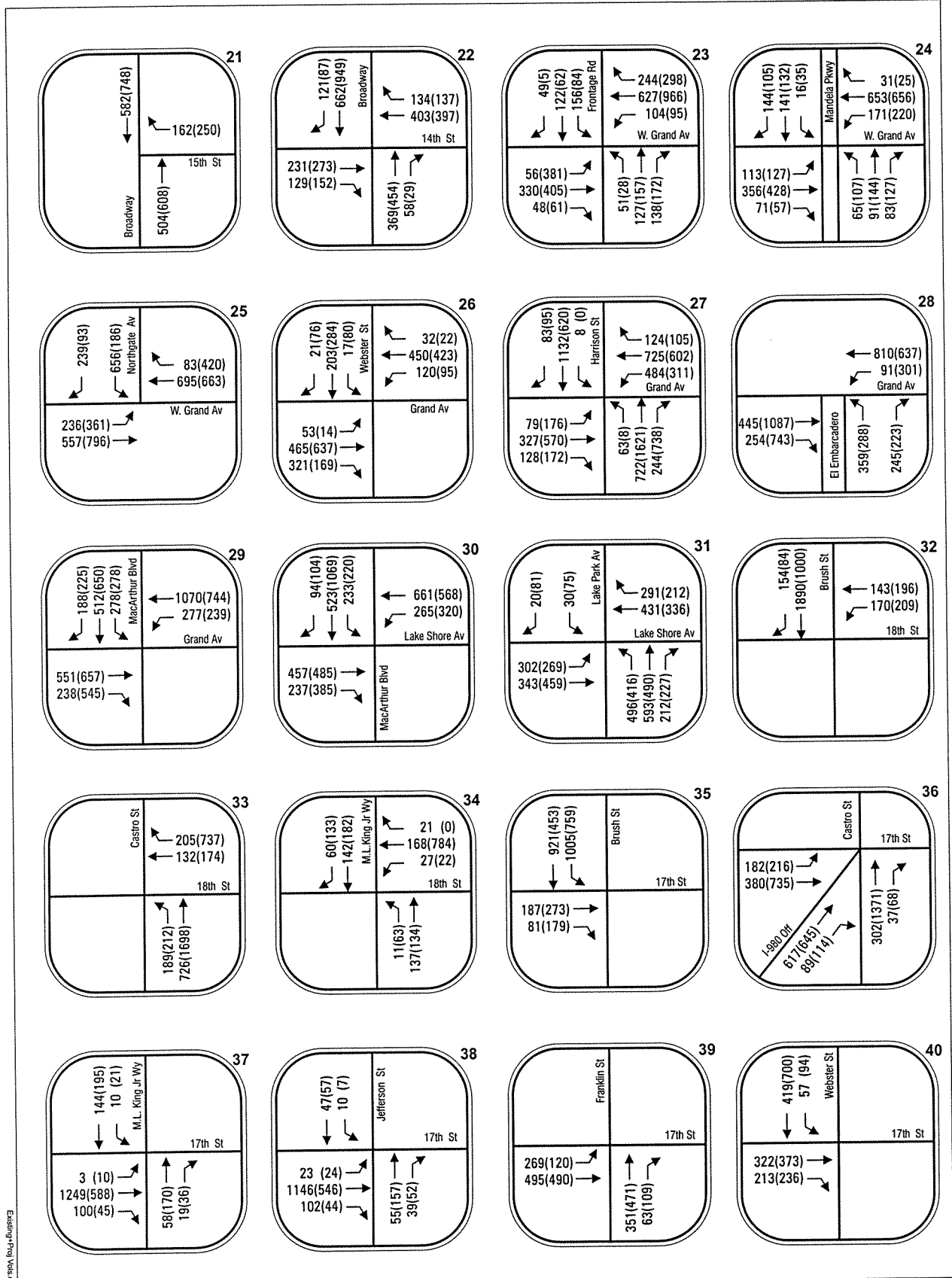
**Figure 3A**

**EXISTING + PROJECT TRAFFIC VOLUMES  
AM (PM) Peak Hour**



KORVE ENGINEERING



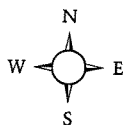


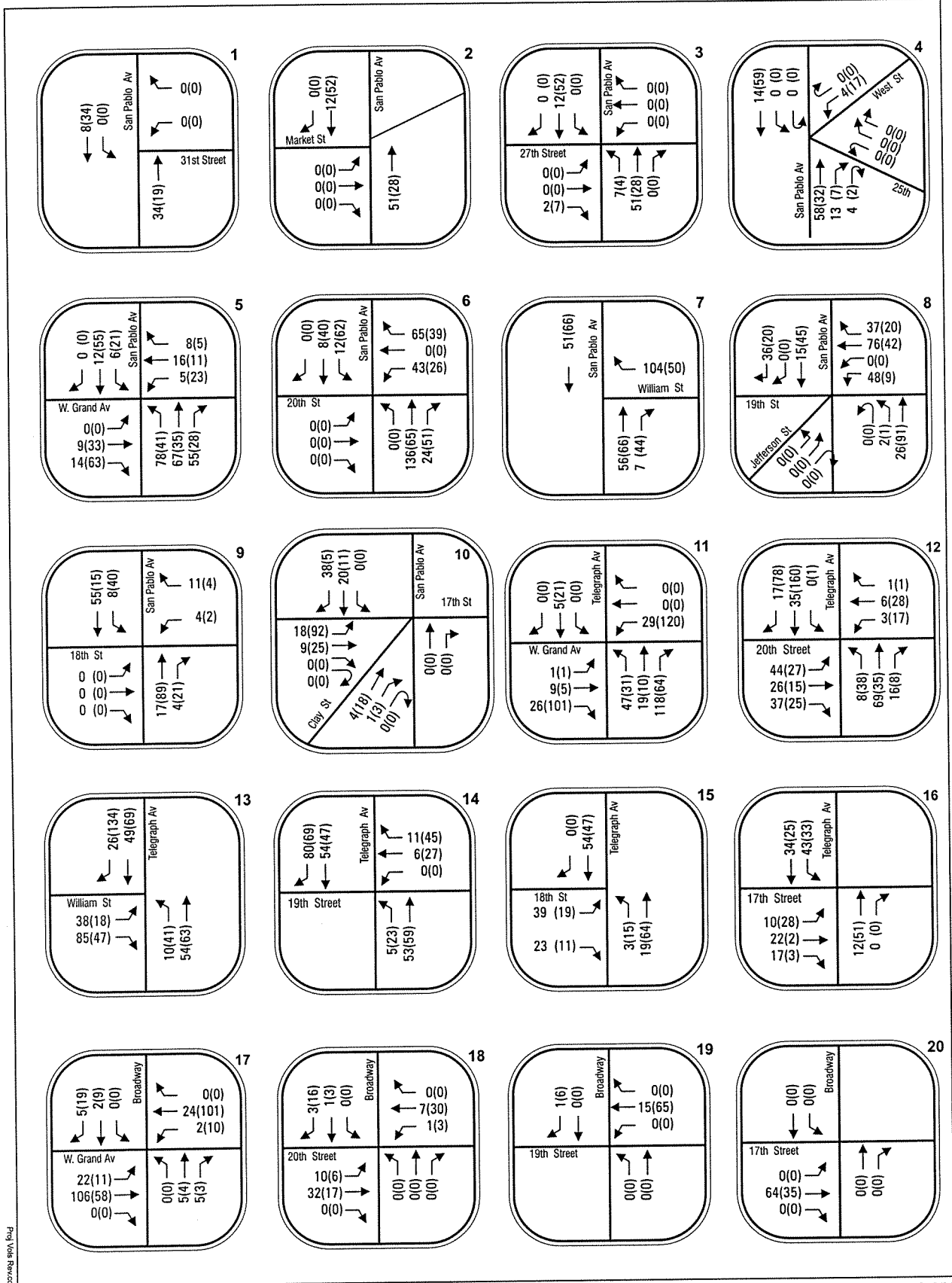
SOURCE: Korve Engineering, 2003

OAKLAND UPTOWN

**Figure 3B**

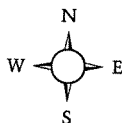
**EXISTING + PROJECT TRAFFIC VOLUMES  
AM (PM) Peak Hour**





Proj. Vols. Revised

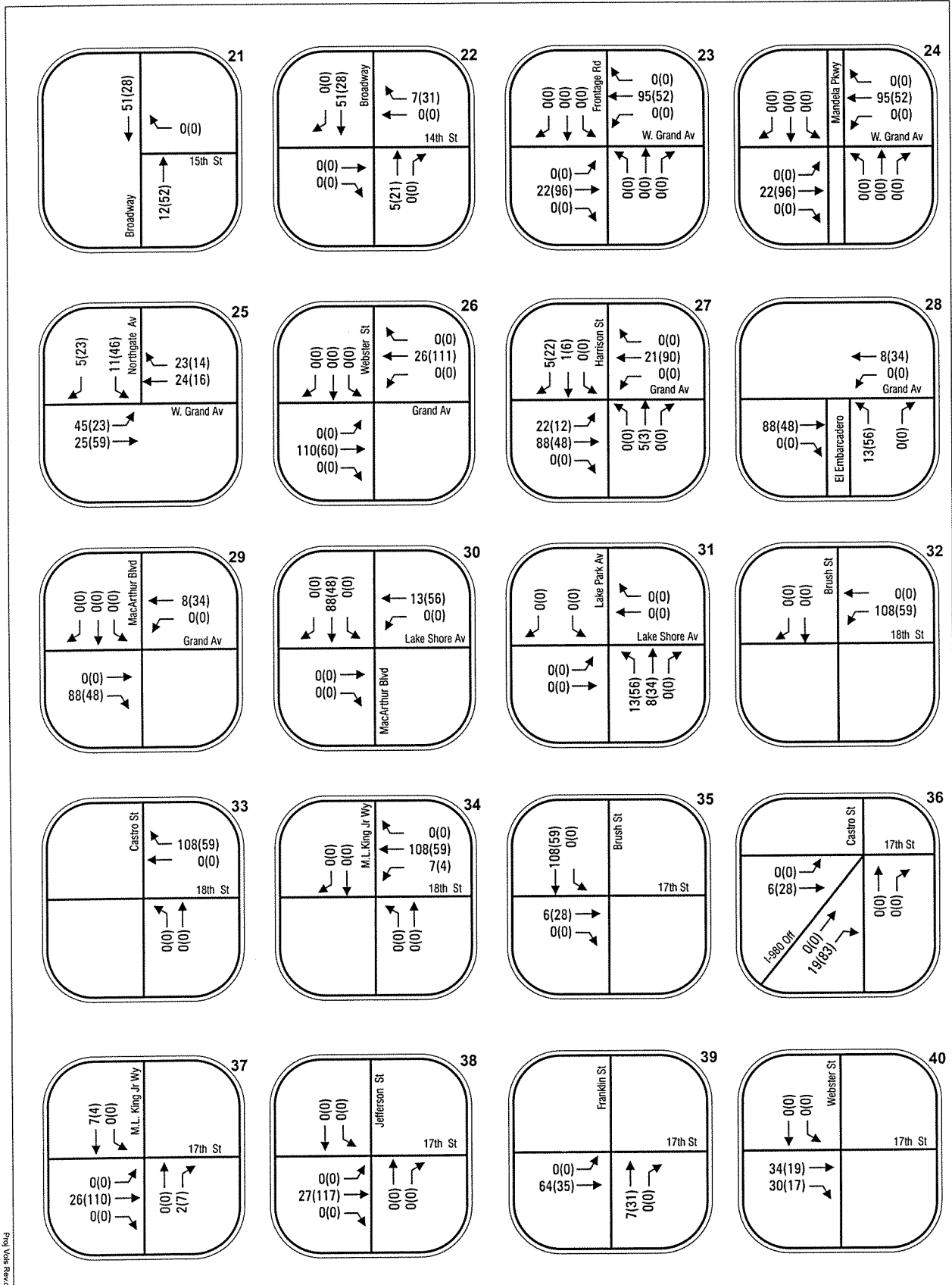
Source: Korve Engineering, 2003



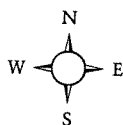
OAKLAND UPTOWN

**Figure 4A**

**PROJECT TRAFFIC VOLUMES  
AM (PM) Peak Hour**



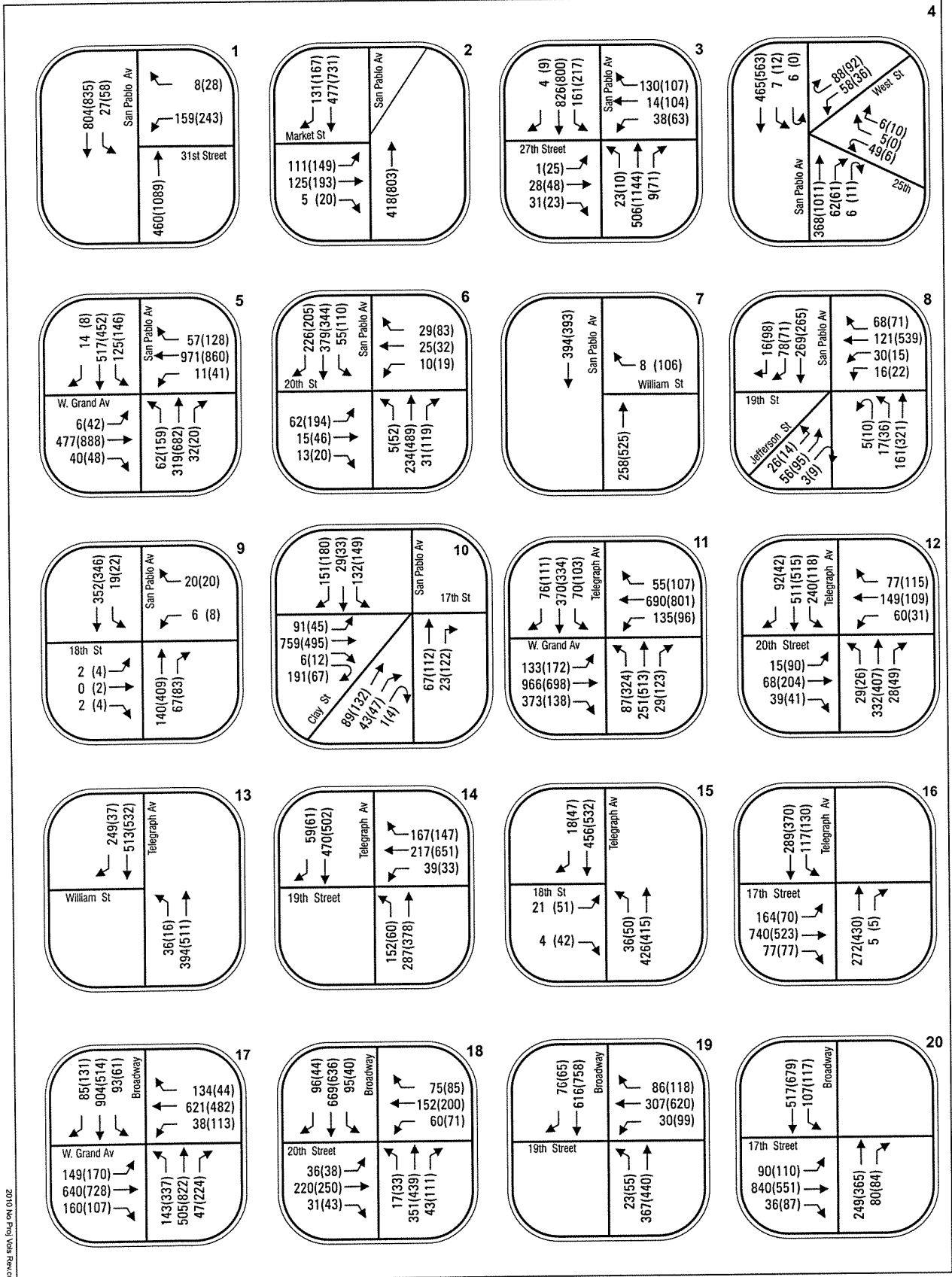
Source: Korve Engineering, 2003



OAKLAND UPTOWN

**Figure 4B**

**PROJECT TRAFFIC VOLUMES  
AM (PM) Peak Hour**



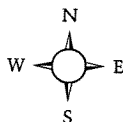
10/20/09 8:00 AM, Blvd. ON 01/02

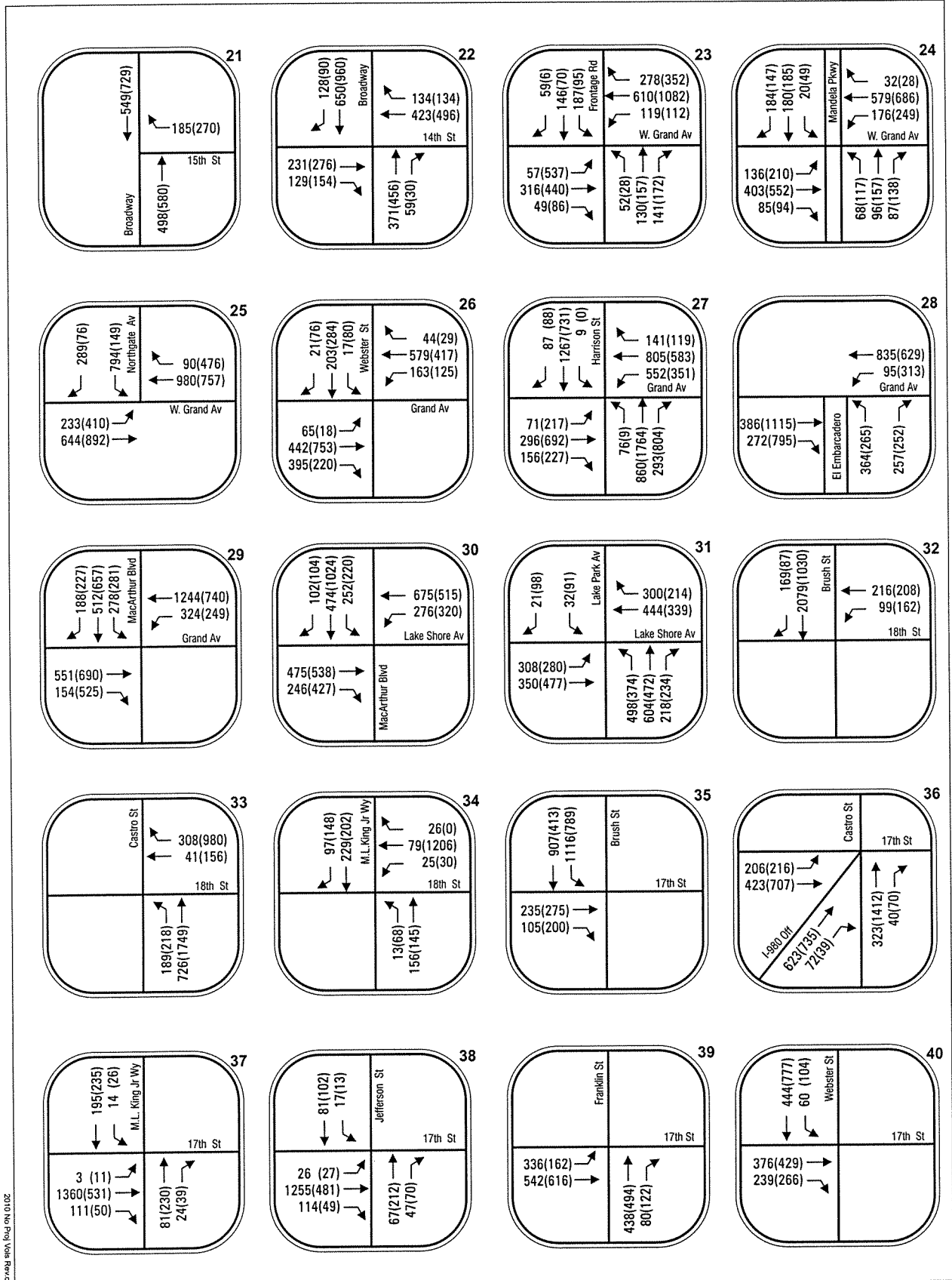
Source: Korve Engineering, 2003

OAKLAND UPTOWN

**Figure 5A**

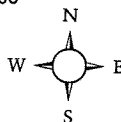
**YEAR 2010 NO PROJECT TRAFFIC VOLUMES**  
AM (PM) Peak Hour



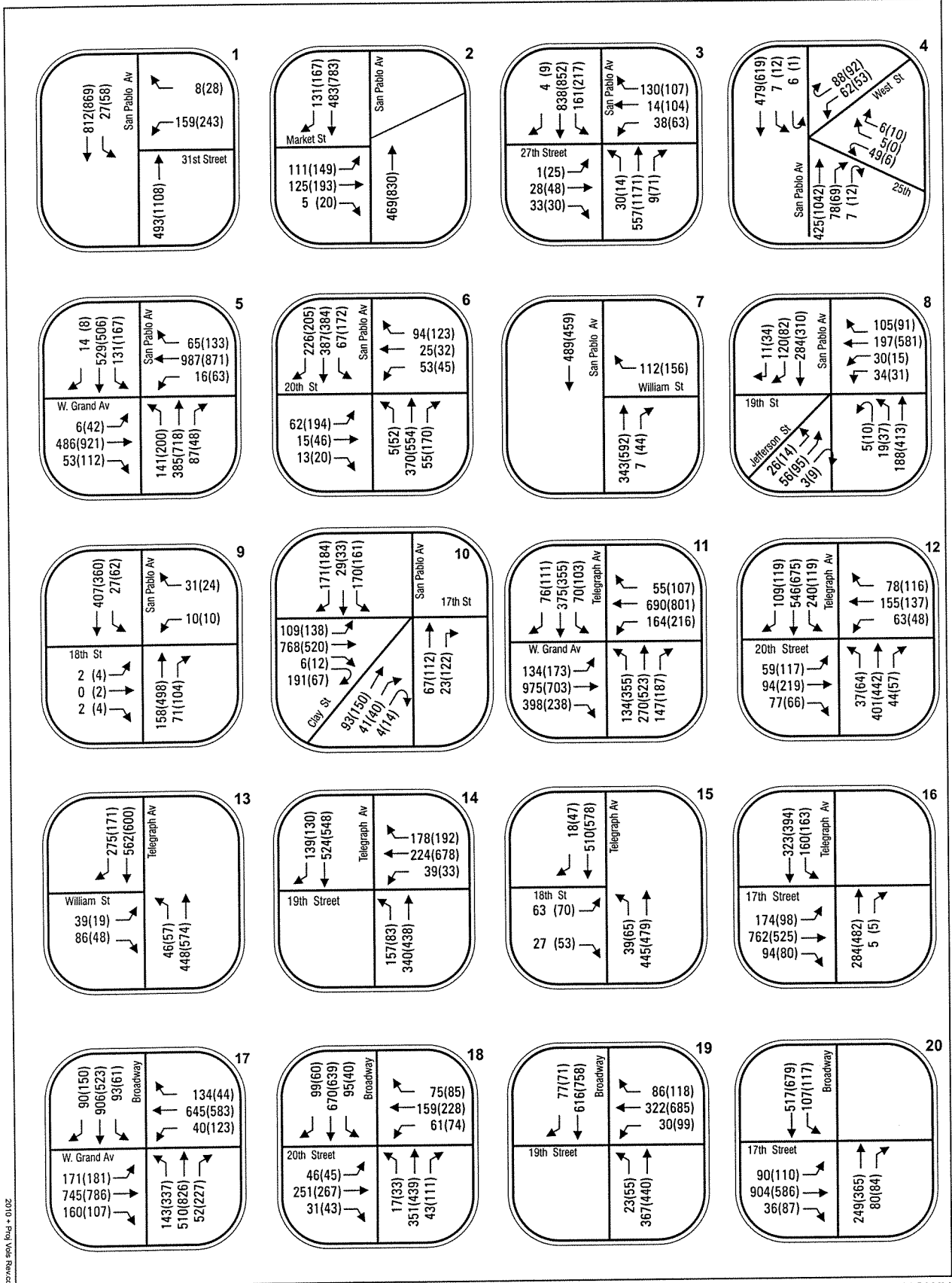


2010 No. Proj. Vol. Report

Source: Korve Engineering, 2003

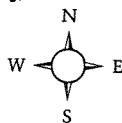


OAKLAND UPTOWN  
**Figure 5B**  
**YEAR 2010 NO PROJECT TRAFFIC VOLUMES**  
**AM (PM) Peak Hour**



2010 - Proj. Notes Revised

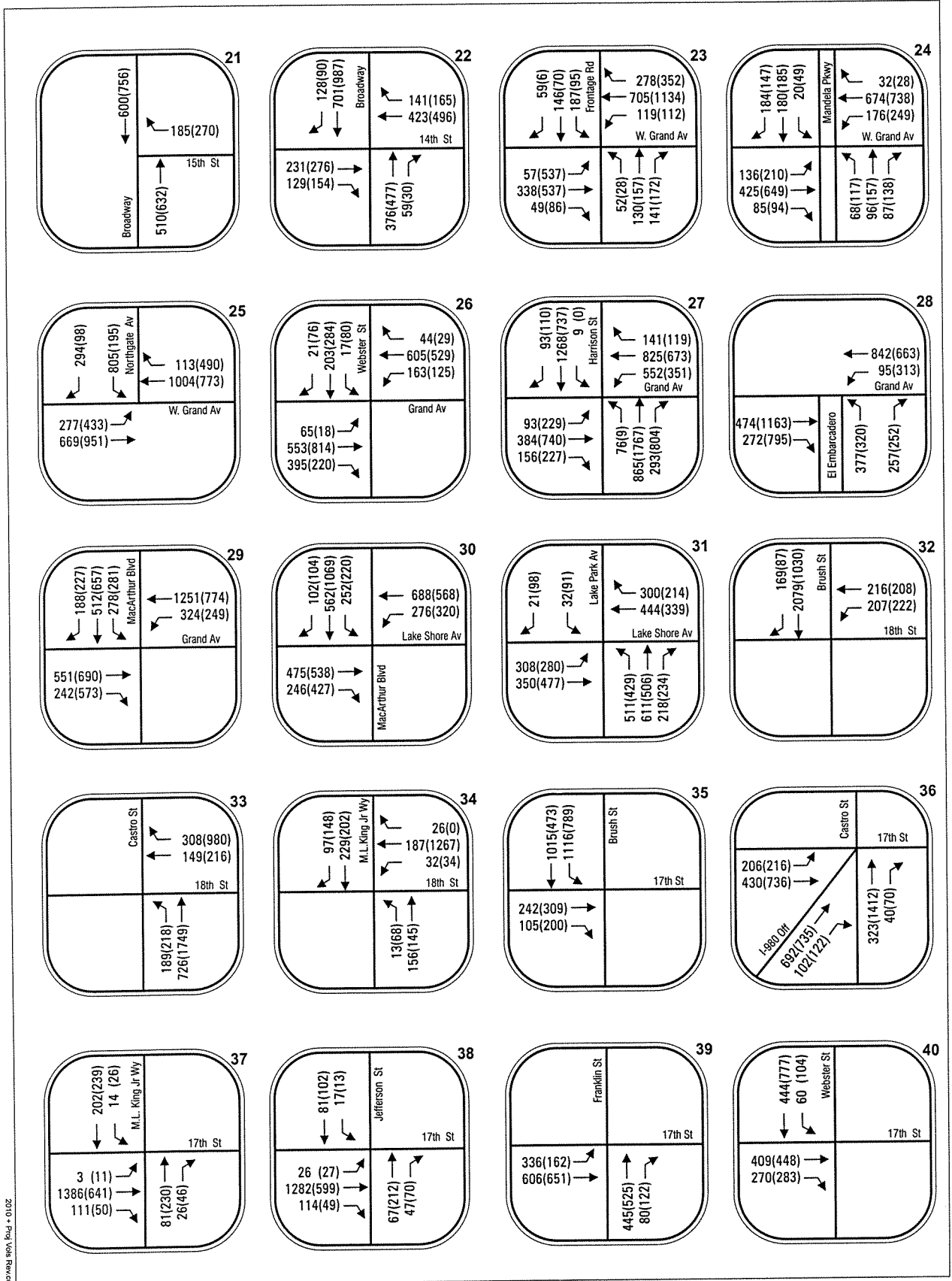
Source: Korve Engineering, 2003



**YEAR 2010 PLUS PROJECT TRAFFIC VOLUMES**  
**AM (PM) Peak Hour**

OAKLAND UPTOWN

**Figure 6A**



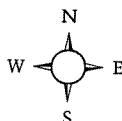
2012 Rev. 04/10/12

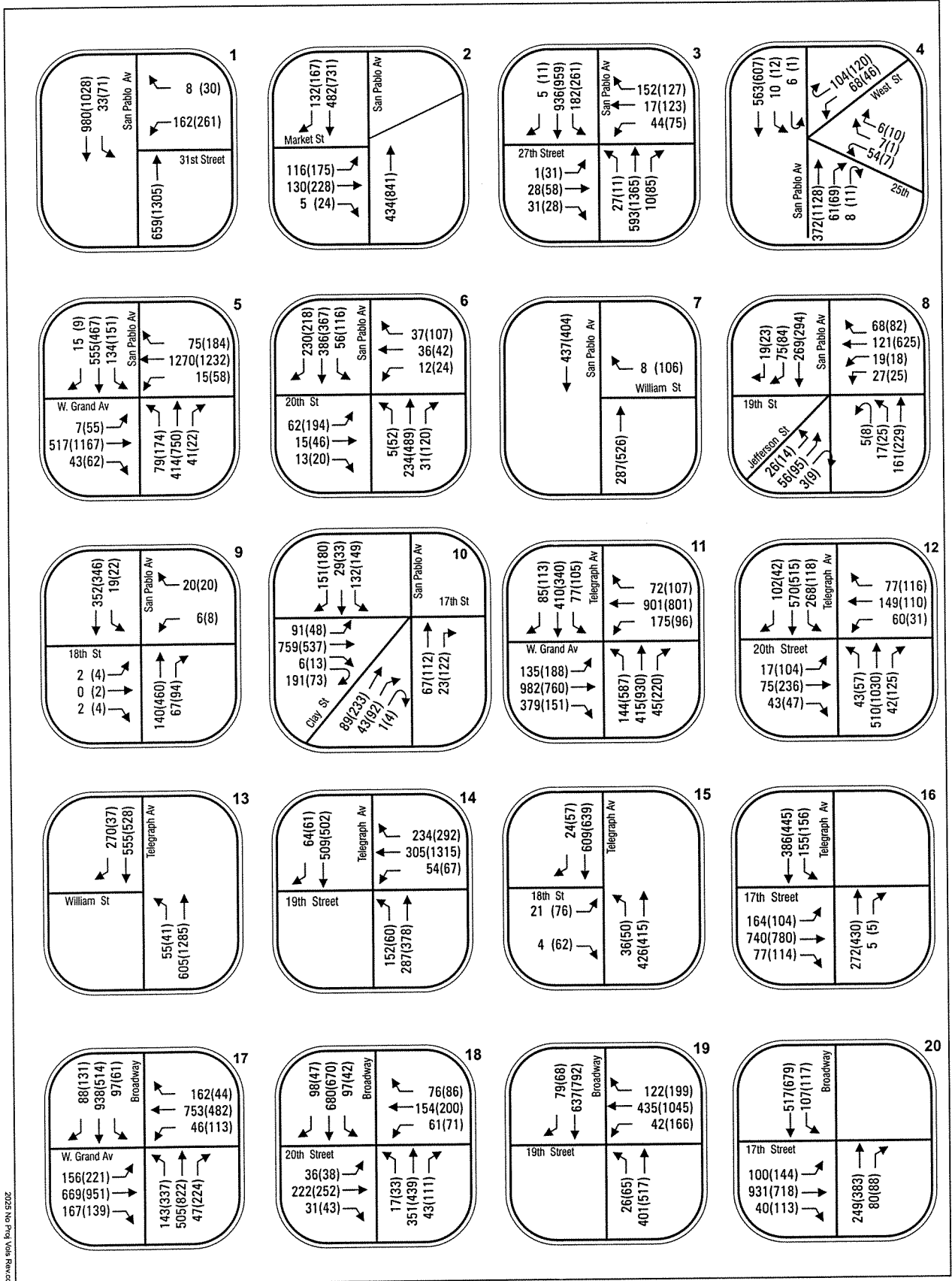
Source: Korve Engineering, 2003

OAKLAND UPTOWN

**Figure 6B**

**YEAR 2010 PLUS PROJECT TRAFFIC VOLUMES  
AM (PM) Peak Hour**





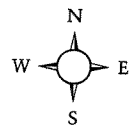
2025 No Proj Vols Review

Source: Korve Engineering, 2003

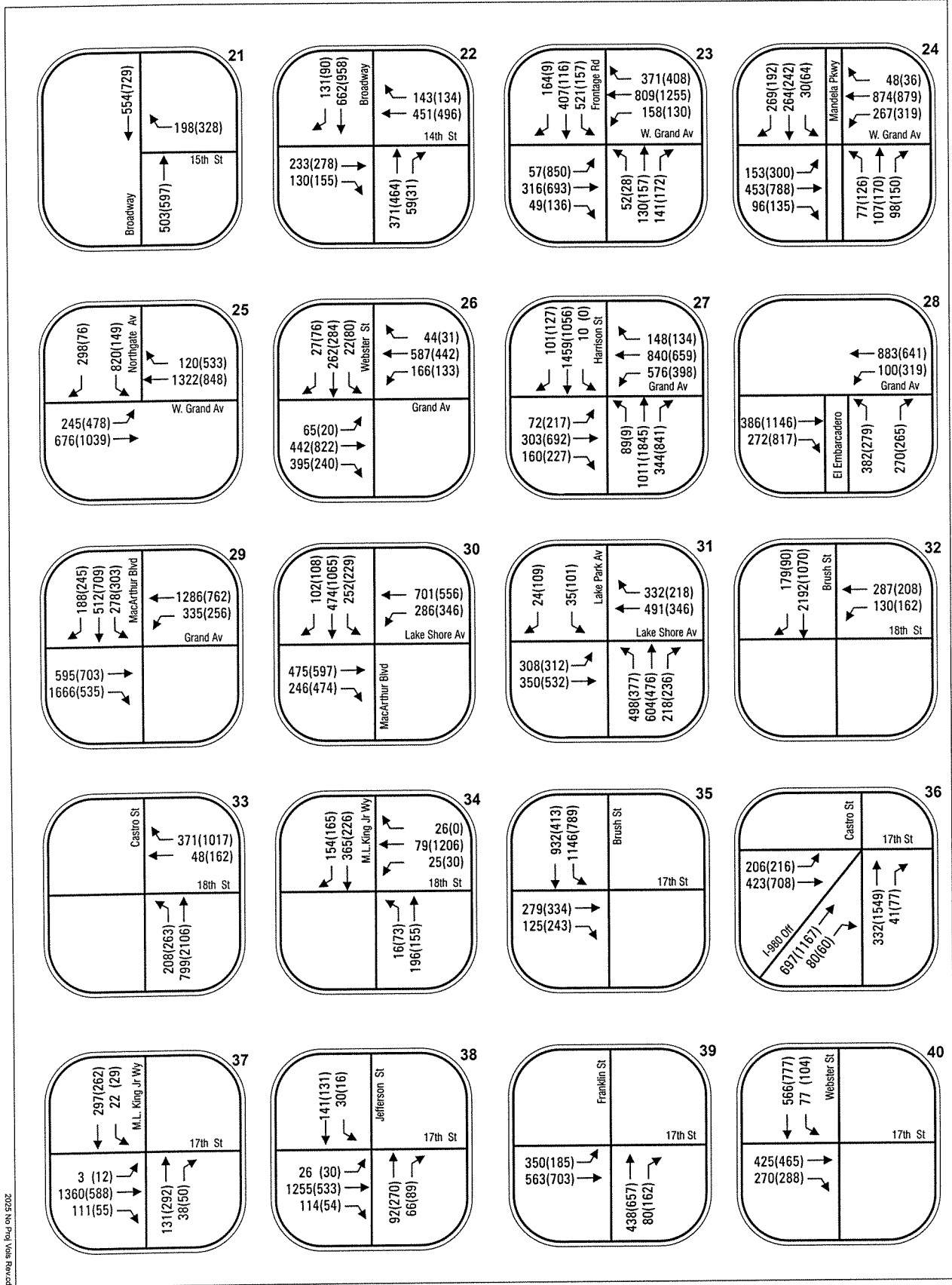
OAKLAND UPTOWN

**Figure 7A**

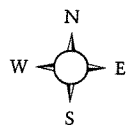
**YEAR 2025 NO PROJECT TRAFFIC VOLUMES  
AM (PM) Peak Hour**







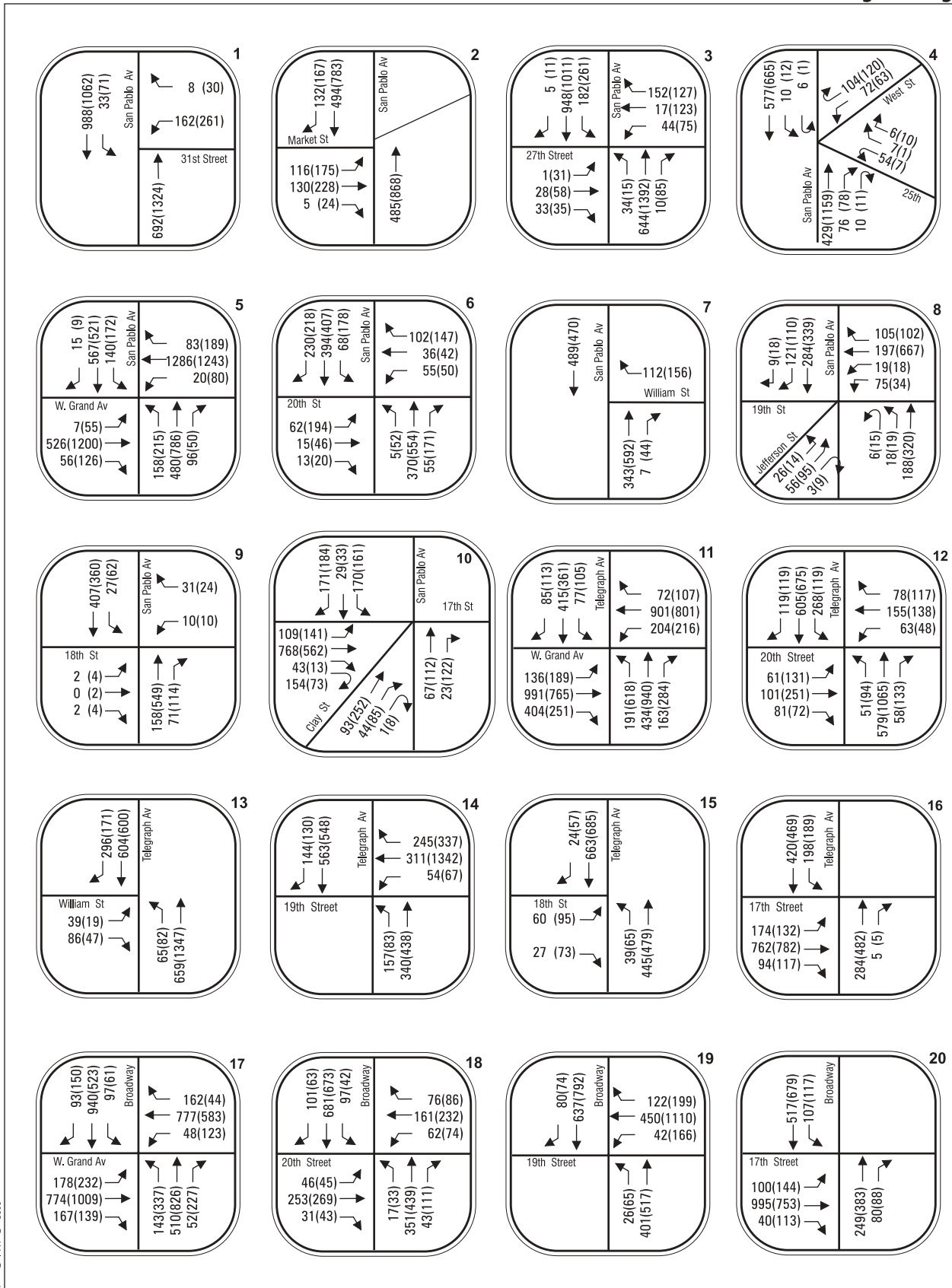
Source: Korve Engineering, 2003



**YEAR 2025 NO PROJECT TRAFFIC VOLUMES**  
AM (PM) Peak Hour

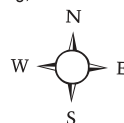
OAKLAND UPTOWN

**Figure 7B**



2025-01-09 10:04 AM - 5252 - Review

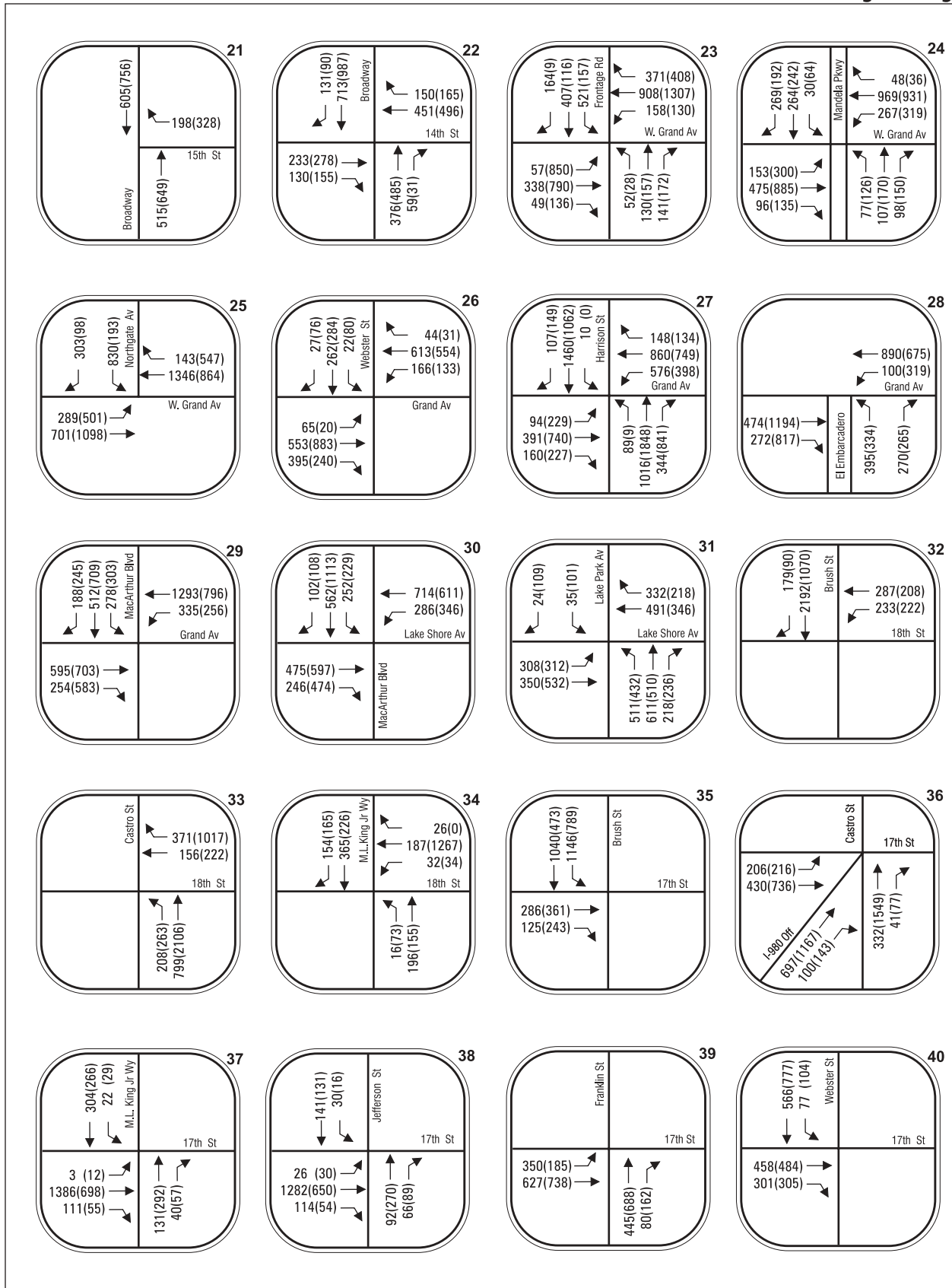
Source: Korve Engineering, 2003



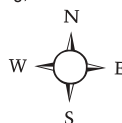
OAKLAND UPTOWN

**Figure 8A**

**YEAR 2025 PLUS PROJECT TRAFFIC VOLUMES  
AM (PM) Peak Hour**



Source: Korve Engineering, 2003



OAKLAND UPTOWN

**Figure 8B**

**YEAR 2025 PLUS PROJECT TRAFFIC VOLUMES  
AM (PM) Peak Hour**

LEVEL OF SERVICE CALCULATION WORKSHEETS  
YEAR 2010 PLUS PROJECT CONDITIONS  
– ACCMA LAND USE

Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour  
ACCMA Analysis

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #1 San Pablo Ave./ 31st St.  
\*\*\*\*\*

Cycle (sec):	80	Critical Vol./Cap. (X):	0.471
Loss Time (sec):	8 (Y+R = 6 sec)	Average Delay (sec/veh):	11.1
Optimal Cycle:	82	Level Of Service:	B

\*\*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R

-----|-----|-----|-----|-----|

Control:	Permitted	Permitted	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 52 0	0 52 0	0 0 0	22 0 22
Lanes:	0 1 1 0 0	1 0 2 0 0	0 0 0 0 0	2 0 0 0 1

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Volume Module: >> Count Date: 9 Jul 2003 <<

Base Vol:	0 800 0	43 622 0	0 0 0 0	184 0 21
Growth Adj:	1.28 1.28 1.28	1.72 1.72 1.72	1.00 1.00 1.00	1.42 1.42 1.42
Initial Bse:	0 1024 0	74 1070 0	0 0 0 0	261 0 30
Added Vol:	0 20 0	0 36 0	0 0 0 0	0 0 0 0
PasserByVol:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Initial Fut:	0 1044 0	74 1106 0	0 0 0 0	261 0 30
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.98 0.98 0.98	0.98 0.98 0.98	0.98 0.98 0.98	0.98 0.98 0.98
PHF Volume:	0 1070 0	76 1134 0	0 0 0 0	268 0 31
Reduct Vol:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Reduced Vol:	0 1070 0	76 1134 0	0 0 0 0	268 0 31
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	0 1070 0	76 1134 0	0 0 0 0	268 0 31

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Saturation Flow Module:

Sat/Lane:	1900 1900	1900 1900	1900 1900	1900 1900
Adjustment:	0.95 0.85 1.00	0.22 0.85 1.00	1.00 1.00 1.00	0.92 1.00 0.68
Lanes:	0.00 2.00 0.00	1.00 2.00 0.00	0.00 0.00 0.00	2.00 0.00 1.00
Final Sat.:	0 3249 0	414 3249 0	0 0 0 0	3502 0 1292

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Capacity Analysis Module:

Vol/Sat:	0.00 0.33 0.00	0.18 0.35 0.00	0.00 0.00 0.00	0.08 0.00 0.02
Crit Moves:	****	****	****	****
Green/Cycle:	0.00 0.63 0.00	0.63 0.63 0.00	0.00 0.00 0.00	0.27 0.00 0.27
Volume/Cap:	0.00 0.52 0.00	0.29 0.55 0.00	0.00 0.00 0.00	0.29 0.00 0.09
Delay/Veh:	0.0 9.1 0.0	9.5 9.5 0.0	0.0 0.0 0.0	24.5 0.0 23.0
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	0.0 9.1 0.0	9.5 9.5 0.0	0.0 0.0 0.0	24.5 0.0 23.0
DesignQueue:	0 19 0	1 21 0	0 0 0 0	9 0 1

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Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour  
ACCMA Analysis

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #2 San Pablo Ave./ Market St.  
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Cycle (sec):	80	Critical Vol./Cap. (X):	0.500
Loss Time (sec):	8 (Y+R = 10 sec)	Average Delay (sec/veh):	12.2
Optimal Cycle:	78	Level Of Service:	B

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R

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Control:	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0 50 0	0 50 0	0 20 0	0 0 20
Lanes:	0 0 1 1 0	0 0 1 1 0	0 1 0 1 0	0 0 0 0 1

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Volume Module: >> Count Date: 9 Jul 2003 <<

Base Vol:	0 749 0	0 729 167	111 144 15	0 0 0
Growth Adj:	1.11 1.11 1.11	1.00 1.00 1.00	1.63 1.63 1.63	1.82 1.82 1.82
Initial Bse:	0 831 0	0 729 167	181 235 24	0 0 0
Added Vol:	0 29 0	0 54 0	0 0 0	0 0 0
PasserByVol:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Initial Fut:	0 860 0	0 783 167	181 235 24	0 0 0
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.95 0.95 0.95	0.95 0.95 0.95	0.95 0.95 0.95	0.95 0.95 0.95
PHF Volume:	0 910 0	0 828 177	191 248 26	0 0 0
Reduct Vol:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Reduced Vol:	0 910 0	0 828 177	191 248 26	0 0 0 0
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	0 910 0	0 828 177	191 248 26	0 0 0

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Saturation Flow Module:

Sat/Lane:	1900 1900	1900 1900	1900 1900	1900 1900
Adjustment:	1.00 0.88 0.95	1.00 0.86 0.86	0.86 0.86 0.86	1.00 1.00 1.00
Lanes:	0.00 2.00 0.00	0.00 1.65 0.35	0.82 1.07 0.11	0.00 0.00 1.00
Final Sat.:	0 3339 0	0 2681 572	1351 1753 183	0 0 1900

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Capacity Analysis Module:

Vol/Sat:	0.00 0.27 0.00	0.00 0.31 0.31	0.14 0.14 0.14	0.00 0.00 0.00
Crit Moves:	****	****	****	****
Green/Cycle:	0.00 0.63 0.00	0.00 0.63 0.63	0.28 0.28 0.28	0.00 0.00 0.00
Volume/Cap:	0.00 0.44 0.00	0.00 0.49 0.49	0.51 0.51 0.51	0.00 0.00 0.00
Delay/Veh:	0.0 8.4 0.0	0.0 9.0 9.0	26.6 26.6 26.6	0.0 0.0 0.0
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	0.0 8.4 0.0	0.0 9.0 9.0	26.6 26.6 26.6	0.0 0.0 0.0
DesignQueue:	0 16 0	0 15 3	6 8 1	0 0 0

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Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour  
ACCMMA Analysis

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #3 San Pablo Ave. / 27th  
\*\*\*\*\*

Cycle (sec): 90 Critical Vol./Cap. (X): 1.798  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 65.5  
Optimal Cycle: 120 Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	60	0	0	60	0	0	22	0	0	22	0
Lanes:	0	1	0	1	0	1	0	0	1	1	0	1

Volume Module:

Base Vol:	8	960	60	174	638	7	21	40	19	53	87	90
Growth Adj:	1.35	1.35	1.35	1.55	1.55	1.55	1.43	1.43	1.43	1.38	1.38	1.38
Initial Bse:	11	1296	81	270	989	11	30	57	27	73	120	124
Added Vol:	4	29	0	0	54	0	0	0	7	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	15	1325	81	270	1043	11	30	57	34	73	120	124
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	16	1472	90	300	1159	12	33	64	38	81	133	138
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	16	1472	90	300	1159	12	33	64	38	81	133	138
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	16	1472	90	300	1159	12	33	64	38	81	133	138

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.88	0.88	0.88	0.10	0.95	0.95	0.77	0.77	0.77	0.75	1.00	0.85
Lanes:	0.02	1.87	0.11	1.00	1.98	0.02	0.25	0.47	0.28	1.00	1.00	1.00
Final Sat.:	35	3133	192	194	3569	37	363	691	413	1417	1900	1615

Capacity Analysis Module:

Vol/Sat:	0.47	0.47	0.47	1.55	0.32	0.32	0.09	0.09	0.09	0.06	0.07	0.09
Crit Moves:	****			****			****			****		
Green/Cycle:	0.67	0.67	0.67	0.67	0.67	0.67	0.24	0.24	0.24	0.24	0.24	0.24
Volume/Cap:	0.70	0.70	0.70	2.32	0.49	0.49	0.38	0.38	0.38	0.23	0.29	0.35
Delay/Veh:	11.3	11.3	11.3	632.3	8.1	8.1	31.3	31.3	31.3	28.8	29.2	30.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.3	11.3	11.3	632.3	8.1	8.1	31.3	31.3	31.3	28.8	29.2	30.5
DesignQueue:	0	28	2	5	21	0	1	2	1	3	5	5

Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour  
ACCMMA Analysis

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #4 San Pablo Ave./ West St./25th St  
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Cycle (sec): 90 Critical Vol./Cap. (X): 0.513  
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 17.0  
Optimal Cycle: 73 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	32	0	0	32	0	12	0	12	17	0	17
Lanes:	0	1	0	1	0	1	0	0	1	1	0	0

Volume Module: >> Count Date: 9 Jul 2003 <<

Base Vol:	0	901	63	12	554	0	5	0	8	25	0	65
Growth Adj:	1.21	1.21	1.21	1.08	1.08	1.08	1.00	1.00	1.00	1.71	1.71	1.71
Initial Bse:	0	1090	76	13	598	0	5	0	8	43	0	111
Added Vol:	0	33	10	0	61	0	0	0	0	18	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1123	86	13	659	0	5	0	8	61	0	111
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	1187	91	14	697	0	5	0	8	64	0	117
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1187	91	14	697	0	5	0	8	64	0	117
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	1187	91	14	697	0	5	0	8	64	0	117

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.85	0.85	0.78	0.78	0.95	0.64	1.00	0.64	0.95	1.00	0.68
Lanes:	0.00	1.86	0.14	0.04	1.96	0.00	0.38	0.00	0.62	1.00	0.00	1.00
Final Sat.:	0	2984	229	57	2909	0	469	0	750	1805	0	1292

Capacity Analysis Module:

Vol/Sat:	0.00	0.40	0.40	0.24	0.24	0.00	0.01	0.00	0.01	0.04	0.00	0.09
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.54	0.54	0.54	0.54	0.00	0.13	0.00	0.13	0.19	0.00	0.19
Volume/Cap:	0.00	0.73	0.73	0.44	0.44	0.00	0.08	0.00	0.08	0.19	0.00	0.48
Delay/Veh:	0.0	17.1	17.1	12.5	12.5	0.0	34.4	0.0	34.4	31.0	0.0	34.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	17.1	17.1	12.5	12.5	0.0	34.4	0.0	34.4	31.0	0.0	34.1
DesignQueue:	0	30	2	0	17	0	0	0	0	3	0	5

Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour  
ACCMMA Analysis

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #5 San Pablo Ave./ Grand Ave  
\*\*\*\*\*

Cycle (sec): 80 Critical Vol./Cap. (X): 0.992  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 98.1  
Optimal Cycle: 120 Level Of Service: F

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	40	0	0	40	0	0	33	0	0	33	0
Lanes:	1	0	1	1	0	1	1	0	2	0	1	1

Volume Module:

Base Vol:	112	489	14	122	373	7	31	663	33	31	677	101
Growth Adj:	1.43	1.43	1.43	1.24	1.24	1.24	1.71	1.71	1.71	1.76	1.76	1.76
Initial Bse:	160	699	20	151	463	9	53	1134	56	55	1192	178
Added Vol:	44	38	29	21	58	0	0	33	68	24	11	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	204	737	49	172	521	9	53	1167	124	79	1203	183
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	215	776	52	181	548	9	56	1228	131	83	1266	192
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	215	776	52	181	548	9	56	1228	131	83	1266	192
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	215	776	52	181	548	9	56	1228	131	83	1266	192

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.40	0.87	0.87	0.26	0.88	0.88	0.12	0.95	0.72	0.55	0.55	0.72
Lanes:	1.00	1.88	0.12	1.00	1.97	0.03	1.00	2.00	1.00	0.12	1.88	1.00
Final Sat.:	752	3103	206	492	3278	55	230	3610	1373	128	1965	1373

Capacity Analysis Module:

Vol/Sat:	0.29	0.25	0.25	0.37	0.17	0.17	0.24	0.34	0.10	0.64	0.64	0.14
Crit Moves:	****											
Green/Cycle:	0.49	0.49	0.49	0.49	0.49	0.49	0.41	0.41	0.41	0.41	0.41	0.41
Volume/Cap:	0.58	0.51	0.51	0.75	0.34	0.34	0.60	0.84	0.23	1.58	1.58	0.34
Delay/Veh:	21.0	15.0	15.0	35.1	13.0	13.0	43.7	27.3	16.7	291.0	291	18.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	21.0	15.0	15.0	35.1	13.0	13.0	43.7	27.3	16.7	291.0	291	18.2
DesignQueue:	5	19	1	4	13	0	1	36	4	2	37	5

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Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour  
ACCMMA Analysis

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #6 San Pablo Ave./ 20th St.  
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Cycle (sec): 80 Critical Vol./Cap. (X): 1.573  
Loss Time (sec): 12 (Y+R = 25 sec) Average Delay (sec/veh): 121.6  
Optimal Cycle: 120 Level Of Service: F

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	20	0	0	20	0	0	30	0	0	30	0
Lanes:	1	0	1	1	0	2	0	1	0	1	0	1

Volume Module:

Base Vol:	40	376	87	95	328	195	194	46	20	15	32	77
Growth Adj:	1.28	1.28	1.28	1.72	1.72	1.72	1.00	1.00	1.00	1.30	1.30	1.30
Initial Bse:	51	481	111	163	564	335	194	46	20	20	42	100
Added Vol:	0	65	57	72	40	0	0	0	0	30	0	46
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	51	546	168	235	604	335	194	46	20	50	42	146
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.94	0.94	0.00	0.91	0.91	0.91	0.92	0.92	0.92
PHF Volume:	57	607	187	250	643	0	213	51	22	54	45	159
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	607	187	250	643	0	213	51	22	54	45	159
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	57	607	187	250	643	0	213	51	22	54	45	159

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.38	0.82	0.82	0.11	0.95	1.00	0.57	0.57	0.57	0.63	0.63	0.63
Lanes:	1.00	0.76	0.24	1.00	2.00	1.00	1.00	0.70	0.30	0.54	0.46	1.00
Final Sat.:	724	1191	367	200	3610	1900	1074	748	325	655	550	1205

Capacity Analysis Module:

Vol/Sat:	0.08	0.51	0.51	1.26	0.18	0.00	0.20	0.07	0.07	0.08	0.08	0.13
Crit Moves:	****											
Green/Cycle:	0.48	0.48	0.48	0.48	0.48	0.00	0.38	0.38	0.38	0.38	0.38	0.38
Volume/Cap:	0.17	1.07	1.07	2.64	0.37	0.00	0.53	0.18	0.18	0.22	0.22	0.35
Delay/Veh:	13.0	75.3	75.3	789.6	14.0	0.0	23.2	17.0	17.0	17.5	17.5	19.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	13.0	75.3	75.3	789.6	14.0	0.0	23.2	17.0	17.0	17.5	17.5	19.3
DesignQueue:	1	16	5	6	16	0	6	1	1	2	1	5

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Uptown Project Traffic Impact Analysis
Year 2010 Plus Project - PM Peak Hour
ACCMA Analysis

Level of Service Computation Report
1997 HCM Unsignalized Method (Future Volume Alternative)
Intersection #7 San Pablo / William St
Average Delay (sec/veh): 1.5 Worst Case Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 0 1 0 0 0 2 0 0 0 0 0 0 0 0 0 0 0 1
Volume Module:
Base Vol: 0 300 0 0 360 0 0 0 0 0 0 0 106
Growth Adj: 1.66 1.66 1.66 1.07 1.07 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 498 0 0 385 0 0 0 0 0 0 0 106
Added Vol: 0 73 44 0 70 0 0 0 0 0 0 0 50
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 571 44 0 455 0 0 0 0 0 0 0 156
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 634 49 0 506 0 0 0 0 0 0 0 173
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 634 49 0 506 0 0 0 0 0 0 0 173
Critical Gap Module:
Critical Gp: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 6.2
FollowUpTim: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 3.3
Capacity Module:
Conflict Vol: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 659
Potent Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 467
Move Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 467
Level Of Service Module:
Stopped Del: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 17.2
LOS by Move: \* C
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shrd StpDel: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared LOS: \*
ApproachDel: xxxxxx xxxxxx xxxxxx xxxxxx 17.2
ApproachLOS: \* \* \* \* \* C

Uptown Project Traffic Impact Analysis
Year 2010 Plus Project - PM Peak Hour
ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #8 San Pablo Ave./ 19th St.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.689
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 28.2
Optimal Cycle: 79 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 30 0 0 30 0 12 0 12 0 25 0
Lanes: 1 0 1 0 0 0 0 2 0 1 0 0 1 0 0 1 0 1 0
Volume Module:
Base Vol: 19 129 0 0 264 94 109 0 9 37 539 71
Growth Adj: 1.66 1.66 1.66 1.07 1.07 1.07 1.00 1.00 1.00 1.14 1.14 1.14
Initial Bse: 32 214 0 0 282 101 109 0 9 42 614 81
Added Vol: 1 98 0 0 46 24 0 0 0 9 42 20
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 33 312 0 0 328 125 109 0 9 51 656 101
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 36 347 0 0 365 138 121 0 10 57 729 112
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 36 347 0 0 365 138 121 0 10 57 729 112
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 36 347 0 0 365 138 121 0 10 57 729 112
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.51 0.85 1.00 1.00 0.95 0.72 0.72 1.00 0.72 0.86 0.86 0.86
Lanes: 1.00 1.00 0.00 0.00 2.00 1.00 0.92 0.00 0.08 0.13 1.62 0.25
Final Sat.: 973 1615 0 0 3610 1373 1269 0 105 207 2652 408
Capacity Analysis Module:
Vol/Sat: 0.04 0.21 0.00 0.00 0.10 0.10 0.10 0.00 0.10 0.28 0.28 0.28
Crit Moves: \*\*\*\*
Green/Cycle: 0.38 0.38 0.00 0.00 0.38 0.38 0.15 0.00 0.15 0.32 0.32 0.32
Volume/Cap: 0.10 0.57 0.00 0.00 0.27 0.27 0.64 0.00 0.64 0.85 0.85 0.85
Delay/Veh: 16.8 23.8 0.0 0.0 17.9 18.7 46.0 0.0 46.0 33.5 33.5 33.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 16.8 23.8 0.0 0.0 17.9 18.7 46.0 0.0 46.0 33.5 33.5 33.5
DesignQueue: 1 10 0 0 10 4 5 0 0 2 23 4



Uptown Project Traffic Impact Analysis
Year 2010 Plus Project - PM Peak Hour
ACCOMA Analysis

Level of Service Computation Report
1997 HCM Unsignalized Method (Future Volume Alternative)
Intersection #9 San Pablo / 18th
Average Delay (sec/veh): 2.3 Worst Case Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 0 1 0 0 1 1 0 0 0 0 1 1 0 0 0 0 1 1 0 0
Volume Module:
Base Vol: 0 165 34 22 345 0 4 2 4 8 0 0 20
Growth Adj: 2.71 2.71 2.71 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 447 92 22 345 0 4 2 4 8 0 0 20
Added Vol: 0 95 21 40 15 0 0 0 0 0 2 0 4
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 542 113 62 360 0 4 2 4 10 0 0 24
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 602 126 69 400 0 4 2 4 11 0 0 27
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 602 126 69 400 0 4 2 4 11 0 0 27
Critical Gap Module:
Critical Gp:xxxxx xxxxx xxxxxx 4.1 xxxxx xxxxxx 7.1 6.5 6.2 7.1 xxxxx 6.2
FollowUpTim:xxxxx xxxxx xxxxxx 2.2 xxxxx xxxxxx 3.5 4.0 3.3 3.5 xxxxx 3.3
Capacity Module:
Cnflct Vol: xxxxx xxxxx xxxxxx 728 xxxxx xxxxxx 1156 1208 42 932 xxxxx 665
Potent Cap.: xxxxx xxxxx xxxxxx 885 xxxxx xxxxxx 166 175 982 236 xxxxx 463
Move Cap.: xxxxx xxxxx xxxxxx 885 xxxxx xxxxxx 147 161 982 218 xxxxx 463
Level Of Service Module:
Stopped Del:xxxxx xxxxx xxxxxx 9.4 xxxxx xxxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
LOS by Move: \* \* \* A \* \* \* \* \* \* \* \* \* \* \* \* \* \* \*
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx 229 xxxxxx xxxxx 348 xxxxxx
Shrd StpDel:xxxxx xxxxx xxxxxx 9.4 xxxxx xxxxxx xxxxxx 21.5 xxxxxx xxxxxx 16.6 xxxxxx
Shared LOS: \* \* \* A \* \* \* C \* \* \* C \*
ApproachDel: xxxxxx xxxxxx 21.5 16.6
ApproachLOS: \* \* C C

Uptown Project Traffic Impact Analysis
Year 2010 Plus Project - PM Peak Hour
ACCOMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #10 San Pablo / 17th / Clay
Cycle (sec): 70 Critical Vol./Cap. (X): 0.586
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 20.5
Optimal Cycle: 62 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 25 0 0 25 0 0 25 0 0 0 0
Lanes: 0 0 0 1 0 1 0 0 1 1 1 0 2 0 1 0 0 1 0 1
Volume Module:
Base Vol: 0 65 71 137 30 164 37 463 74 0 111 43
Growth Adj: 2.71 2.71 2.71 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 176 192 137 30 164 37 463 74 0 111 43
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Uptown+TLB: 0 0 0 12 0 5 98 25 0 0 0 0
Initial Fut: 0 176 192 149 30 169 135 488 74 0 130 46
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 196 214 166 33 188 150 542 82 0 144 51
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 196 214 166 33 188 150 542 82 0 144 51
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 196 214 166 33 188 150 542 82 0 144 51
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.83 0.83 0.73 0.87 0.87 0.95 0.95 0.85 1.00 1.00 0.85
Lanes: 0.00 0.48 0.52 1.00 0.30 1.70 1.00 2.00 1.00 0.00 1.00 1.00
Final Sat.: 0 754 823 1378 500 2817 1805 3610 1615 0 1900 1615
Capacity Analysis Module:
Vol/Sat: 0.00 0.26 0.26 0.12 0.07 0.07 0.08 0.15 0.05 0.00 0.08 0.03
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.36 0.36 0.36 0.36 0.36 0.36 0.36 0.36 0.00 0.11 0.11
Volume/Cap: 0.00 0.71 0.71 0.33 0.18 0.18 0.23 0.42 0.14 0.00 0.71 0.30
Delay/Veh: 0.0 23.3 23.3 16.4 15.2 15.2 16.0 17.2 15.4 0.0 41.5 29.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 23.3 23.3 16.4 15.2 15.2 16.0 17.2 15.4 0.0 41.5 29.8
DesignQueue: 0 5 6 4 1 5 4 14 2 0 5 2

Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour  
ACCMMA Analysis

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #11 Telegraph Ave./ W. Grand Ave.  
\*\*\*\*\*

Cycle (sec): 80 Critical Vol./Cap. (X): 1.206  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 36.2  
Optimal Cycle: 120 Level Of Service: D

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	20	0	0	20	0	0	30	0	0	30	0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:

Base Vol:	299	474	110	99	320	107	139	563	110	76	673	90
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.23	1.23	1.23	1.19	1.19	1.19
Initial Bse:	311	493	114	103	333	111	171	692	135	90	801	107
Added Vol:	32	11	68	0	22	0	1	5	102	126	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	343	504	182	103	355	111	172	697	237	216	801	107
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	361	530	192	108	373	117	181	734	250	228	843	113
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	361	530	192	108	373	117	181	734	250	228	843	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	361	530	192	108	373	117	181	734	250	228	843	113

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.54	0.84	0.84	0.20	0.85	0.85	0.20	0.85	0.85	0.19	0.86	0.86
Lanes:	1.00	1.47	0.53	1.00	1.52	0.48	1.00	1.49	0.51	1.00	1.76	0.24
Final Sat.:	1020	2354	852	380	2450	769	374	2397	815	353	2892	387

Capacity Analysis Module:

Vol/Sat:	0.35	0.23	0.23	0.29	0.15	0.15	0.48	0.31	0.31	0.64	0.29	0.29
Crit Moves:	****			****			****			****		
Green/Cycle:	0.41	0.41	0.41	0.25	0.25	0.25	0.49	0.49	0.49	0.49	0.49	0.49
Volume/Cap:	0.87	0.56	0.56	1.14	0.61	0.61	0.98	0.62	0.62	1.30	0.59	0.59
Delay/Veh:	36.3	18.8	18.8	165.3	27.9	27.9	79.5	15.5	15.5	192.4	15.0	15.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	36.3	18.8	18.8	165.3	27.9	27.9	79.5	15.5	15.5	192.4	15.0	15.0
DesignQueue:	14	15	5	4	13	4	4	18	6	5	20	3

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Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour  
ACCMMA Analysis

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #12 Telegraph Ave./ 20th St.  
\*\*\*\*\*

Cycle (sec): 45 Critical Vol./Cap. (X): 0.632  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 21.7  
Optimal Cycle: 47 Level Of Service: C

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	17	0	0	17	0	0	22	0	0	22	0
Lanes:	1	0	0	1	0	1	0	1	0	0	1	0

Volume Module:

Base Vol:	18	354	43	90	393	25	90	203	37	31	107	115
Growth Adj:	1.14	1.14	1.14	1.28	1.28	1.28	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	21	404	49	115	503	32	90	203	37	31	107	115
Added Vol:	43	35	8	1	160	86	27	16	29	17	30	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	64	439	57	116	663	118	117	219	66	48	137	116
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.93	0.93	0.93	0.91	0.91	0.91	0.90	0.90	0.90
PHF Volume:	71	487	63	125	713	127	129	241	73	53	152	129
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	487	63	125	713	127	129	241	73	53	152	129
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	71	487	63	125	713	127	129	241	73	53	152	129

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.24	0.84	0.84	0.24	0.86	0.86	0.66	0.66	0.66	0.70	0.70	0.70
Lanes:	1.00	0.88	0.12	1.00	1.70	0.30	0.58	1.09	0.33	0.32	0.91	0.77
Final Sat.:	458	1405	183	447	2770	493	725	1357	409	423	1208	1023

Capacity Analysis Module:

Vol/Sat:	0.15	0.35	0.35	0.28	0.26	0.26	0.18	0.18	0.18	0.13	0.13	0.13
Crit Moves:	****			****			****			****		
Green/Cycle:	0.36	0.36	0.36	0.36	0.36	0.36	0.47	0.47	0.47	0.47	0.47	0.47
Volume/Cap:	0.43	0.96	0.96	0.77	0.71	0.71	0.38	0.38	0.38	0.27	0.27	0.27
Delay/Veh:	19.2	43.3	43.3	42.8	16.6	16.6	9.0	9.0	9.0	8.1	8.1	8.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	19.2	43.3	43.3	42.8	16.6	16.6	9.0	9.0	9.0	8.1	8.1	8.1
DesignQueue:	1	9	1	2	13	2	2	3	1	1	2	2

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Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour  
ACCM Analysis

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #13 Telegraph / William St  
\*\*\*\*\*

Cycle (sec): 45 Critical Vol./Cap. (X): 0.695  
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 10.7  
Optimal Cycle: 40 Level Of Service: B

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	10	0	10	0	0	0
Lanes:	1	0	1	0	0	1	0	0	1	0	0	0

Volume Module:

Base Vol:	14	440	0	0	400	28	1	0	1	0	0	0
Growth Adj:	1.14	1.14	1.14	1.29	1.29	1.29	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	502	0	0	516	36	1	0	1	0	0	0
Added Vol:	41	68	0	0	72	134	18	0	47	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	57	570	0	0	588	170	19	0	48	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	63	633	0	0	653	189	21	0	53	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	63	633	0	0	653	189	21	0	53	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	63	633	0	0	653	189	21	0	53	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.56	1.00	1.00	1.00	0.87	0.87	0.63	1.00	0.63	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.78	0.22	0.28	0.00	0.72	0.00	0.00	0.00
Final Sat.:	1060	1900	0	0	1282	371	341	0	861	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.06	0.33	0.00	0.00	0.51	0.51	0.06	0.00	0.06	0.00	0.00	0.00
Crit Moves:	*****											
Green/Cycle:	0.60	0.60	0.00	0.00	0.60	0.60	0.22	0.00	0.22	0.00	0.00	0.00
Volume/Cap:	0.10	0.56	0.00	0.00	0.85	0.85	0.28	0.00	0.28	0.00	0.00	0.00
Delay/Veh:	3.9	6.0	0.0	0.0	14.4	14.4	15.1	0.0	15.1	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	3.9	6.0	0.0	0.0	14.4	14.4	15.1	0.0	15.1	0.0	0.0	0.0
DesignQueue:	1	7	0	0	7	2	0	0	1	0	0	0

Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour  
ACCM Analysis

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #14 Telegraph Ave./ 19th St.  
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Cycle (sec): 45 Critical Vol./Cap. (X): 0.963  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 78.1  
Optimal Cycle: 86 Level Of Service: E

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	17	0	0	17	0	0	0	0	0	22	0
Lanes:	1	0	1	0	0	1	0	0	0	0	1	0

Volume Module:

Base Vol:	57	355	0	0	377	46	0	0	0	28	552	122
Growth Adj:	1.05	1.05	1.05	1.29	1.29	1.29	1.00	1.00	1.00	1.12	1.12	1.12
Initial Bse:	60	373	0	0	486	59	0	0	0	31	618	137
Added Vol:	23	62	0	0	50	69	0	0	0	0	27	48
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	83	435	0	0	536	128	0	0	0	31	645	185
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.93	0.93	0.93	1.00	1.00	1.00	0.94	0.94	0.94
PHF Volume:	85	448	0	0	577	138	0	0	0	33	686	196
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	85	448	0	0	577	138	0	0	0	33	686	196
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	85	448	0	0	577	138	0	0	0	33	686	196

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.85	0.85	1.00	1.00	0.74	0.74	1.00	1.00	1.00	0.82	0.82	0.82
Lanes:	1.00	1.00	0.00	0.00	0.81	0.19	0.00	0.00	0.00	0.07	1.50	0.43
Final Sat.:	1615	1615	0	0	1139	273	0	0	0	114	2344	671

Capacity Analysis Module:

Vol/Sat:	0.05	0.28	0.00	0.00	0.51	0.51	0.00	0.00	0.00	0.29	0.29	0.29
Crit Moves:	*****											
Green/Cycle:	0.36	0.36	0.00	0.00	0.36	0.36	0.00	0.00	0.00	0.47	0.47	0.47
Volume/Cap:	0.15	0.77	0.00	0.00	1.40	1.40	0.00	0.00	0.00	0.63	0.63	0.63
Delay/Veh:	10.6	22.6	0.0	0.0	207	206.5	0.0	0.0	0.0	11.4	11.4	11.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.6	22.6	0.0	0.0	207	206.5	0.0	0.0	0.0	11.4	11.4	11.4
DesignQueue:	1	8	0	0	11	3	0	0	0	0	10	3

Uptown Project Traffic Impact Analysis  
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Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #15 Telegraph / 18th St  
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Cycle (sec): 45 Critical Vol./Cap. (X): 0.647  
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 9.3  
Optimal Cycle: 37 Level Of Service: A

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	7	0	7	0	0	0
Lanes:	1	0	1	0	0	1	0	0	1	0	0	0

Volume Module:

Base Vol:	42	350	0	0	380	34	44	0	36	0	0	0
Growth Adj:	1.18	1.18	1.18	1.36	1.36	1.36	1.14	1.14	1.14	1.14	1.14	1.14
Initial Bse:	50	413	0	0	517	46	50	0	41	0	0	0
Added Vol:	15	66	0	0	50	0	19	0	11	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	65	479	0	0	567	46	69	0	52	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	72	532	0	0	630	51	77	0	58	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	72	532	0	0	630	51	77	0	58	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	72	532	0	0	630	51	77	0	58	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.58	1.00	1.00	1.00	0.89	0.89	0.55	1.00	0.55	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.92	0.08	0.57	0.00	0.43	0.00	0.00	0.00
Final Sat.:	1100	1900	0	0	1563	128	594	0	447	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.07	0.28	0.00	0.00	0.40	0.40	0.13	0.00	0.13	0.00	0.00	0.00
Crit Moves:	****											
Green/Cycle:	0.62	0.62	0.00	0.00	0.62	0.62	0.20	0.00	0.20	0.00	0.00	0.00
Volume/Cap:	0.10	0.45	0.00	0.00	0.65	0.65	0.65	0.00	0.65	0.00	0.00	0.00
Delay/Veh:	3.7	5.7	0.0	0.0	8.4	8.4	31.1	0.0	31.1	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	3.7	5.7	0.0	0.0	8.4	8.4	31.1	0.0	31.1	0.0	0.0	0.0
DesignQueue:	1	5	0	0	7	1	2	0	1	0	0	0

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Uptown Project Traffic Impact Analysis  
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ACCMA Analysis

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #16 Telegraph Ave./ 17th St.  
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Cycle (sec): 45 Critical Vol./Cap. (X): 0.519  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 10.6  
Optimal Cycle: 30 Level Of Service: B

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	1	1	0	1	0	1	1	0	0	0

Volume Module:

Base Vol:	0	363	4	92	265	0	60	451	66	0	0	0
Growth Adj:	1.18	1.18	1.18	1.36	1.36	1.36	1.14	1.14	1.14	1.00	1.00	1.00
Initial Bse:	0	428	5	125	360	0	68	514	75	0	0	0
Added Vol:	0	54	0	35	26	0	28	2	3	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	482	5	160	386	0	96	516	78	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	536	5	178	429	0	107	573	87	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	536	5	178	429	0	107	573	87	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	536	5	178	429	0	107	573	87	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.88	0.88	0.46	0.85	1.00	0.84	0.84	0.84	1.00	1.00	1.00
Lanes:	0.00	1.98	0.02	1.00	1.00	0.00	0.42	2.24	0.34	0.00	0.00	0.00
Final Sat.:	0	3304	32	870	1615	0	664	3558	539	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.16	0.16	0.20	0.27	0.00	0.16	0.16	0.16	0.00	0.00	0.00
Crit Moves:	****											
Green/Cycle:	0.00	0.51	0.51	0.51	0.51	0.00	0.31	0.31	0.31	0.00	0.00	0.00
Volume/Cap:	0.00	0.32	0.32	0.40	0.52	0.00	0.52	0.52	0.52	0.00	0.00	0.00
Delay/Veh:	0.0	6.9	6.9	9.4	9.6	0.0	14.1	14.1	14.1	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	6.9	6.9	9.4	9.6	0.0	14.1	14.1	14.1	0.0	0.0	0.0
DesignQueue:	0	7	0	2	6	0	2	10	2	0	0	0

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Uptown Project Traffic Impact Analysis  
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ACCMA Analysis

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #17 Broadway/ W. Grand Ave.

Cycle (sec): 85 Critical Vol./Cap. (X): 1.279  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 54.0  
Optimal Cycle: 120 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	37	0	0	37	0	0	42	0	0	42	0
Lanes:	1	0	2	0	1	1	1	0	1	0	1	0

Volume Module:

Base Vol:	301	734	200	59	494	125	136	585	86	84	356	33
Growth Adj:	1.12	1.12	1.12	1.03	1.03	1.03	1.23	1.23	1.23	1.30	1.30	1.30
Initial Bse:	337	822	224	61	509	129	167	720	106	109	463	43
Added Vol:	0	4	3	0	9	20	12	61	0	10	106	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	337	826	227	61	518	149	179	781	106	119	569	43
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	375	918	252	68	575	165	199	867	118	132	632	48
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	375	918	252	68	575	165	199	867	118	132	632	48
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	375	918	252	68	575	165	199	867	118	132	632	48

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.27	0.95	0.72	0.19	0.85	0.85	0.26	0.86	0.86	0.51	0.51	0.51
Lanes:	1.00	2.00	1.00	1.00	1.55	0.45	1.00	1.76	0.24	0.32	1.56	0.12
Final Sat.:	507	3610	1373	361	2508	721	492	2888	391	313	1494	113

Capacity Analysis Module:

Vol/Sat:	0.74	0.25	0.18	0.19	0.23	0.23	0.40	0.30	0.30	0.42	0.42	0.42
Crit Moves:	****											
Green/Cycle:	0.43	0.43	0.43	0.43	0.43	0.43	0.48	0.48	0.48	0.48	0.48	0.48
Volume/Cap:	1.74	0.60	0.43	0.44	0.54	0.54	0.84	0.62	0.62	0.88	0.88	0.88
Delay/Veh:	374.9	21.0	19.9	26.6	20.2	20.2	47.9	18.5	18.5	31.6	31.6	31.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	374.9	21.0	19.9	26.6	20.2	20.2	47.9	18.5	18.5	31.6	31.6	31.6
DesignQueue:	11	27	7	7	2	17	5	4	23	3	4	17

Uptown Project Traffic Impact Analysis  
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ACCMA Analysis

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #18 Broadway/ 20th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.495  
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 13.0  
Optimal Cycle: 56 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	30	0	0	30	0	0	18	0	0	18	0
Lanes:	0	1	0	1	0	1	0	1	0	0	1	0

Volume Module:

Base Vol:	27	360	91	36	573	40	38	249	43	70	196	84
Growth Adj:	1.23	1.23	1.23	1.08	1.08	1.08	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	33	443	112	39	619	43	38	249	43	70	196	84
Added Vol:	0	0	0	0	3	16	7	18	0	3	32	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	33	443	112	39	622	59	45	267	43	73	228	84
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.96	0.96	0.96	0.94	0.94	0.94	0.92	0.92	0.92
PHF Volume:	36	476	120	41	648	62	48	284	46	79	248	91
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	476	120	41	648	62	48	284	46	79	248	91
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	36	476	120	41	648	62	48	284	46	79	248	91

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.67	0.67	0.67	0.33	0.76	0.76	0.66	0.66	0.66	0.61	0.61	0.61
Lanes:	0.11	1.51	0.38	1.00	1.83	0.17	0.25	1.51	0.24	0.38	1.18	0.44
Final Sat.:	144	1918	485	631	2635	251	316	1872	302	439	1370	505

Capacity Analysis Module:

Vol/Sat:	0.25	0.25	0.25	0.06	0.25	0.25	0.15	0.15	0.15	0.18	0.18	0.18
Crit Moves:	****											
Green/Cycle:	0.50	0.50	0.50	0.50	0.50	0.50	0.37	0.37	0.37	0.37	0.37	0.37
Volume/Cap:	0.50	0.50	0.50	0.13	0.49	0.49	0.42	0.42	0.42	0.50	0.50	0.50
Delay/Veh:	11.3	11.3	11.3	8.8	11.1	11.1	15.6	15.6	15.6	16.8	16.8	16.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.3	11.3	11.3	8.8	11.1	11.1	15.6	15.6	15.6	16.8	16.8	16.8
DesignQueue:	1	8	2	1	11	1	1	6	1	2	5	2

Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour  
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Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #19 Broadway/ 19th St.  
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Cycle (sec): 60 Critical Vol./Cap. (X): 0.625  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 14.5  
Optimal Cycle: 60 Level Of Service: B

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	21	0	0	21	0	0	0	0	0	31	0
Lanes:	0	1	1	0	0	2	1	0	0	0	1	0

Volume Module:

Base Vol:	48	383	0	0	695	60	0	0	0	93	582	111
Growth Adj:	1.14	1.14	1.14	1.06	1.06	1.06	1.00	1.00	1.00	1.05	1.05	1.05
Initial Bse:	55	437	0	0	737	64	0	0	0	98	611	117
Added Vol:	0	0	0	0	0	6	0	0	0	0	68	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	55	437	0	0	737	70	0	0	0	98	679	117
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	61	485	0	0	819	77	0	0	0	109	755	130
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	61	485	0	0	819	77	0	0	0	109	755	130
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	61	485	0	0	819	77	0	0	0	109	755	130

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.64	0.64	1.00	1.00	0.81	0.81	1.00	1.00	1.00	0.82	0.82	0.82
Lanes:	0.22	1.78	0.00	0.00	2.74	0.26	0.00	0.00	0.00	0.22	1.52	0.26
Final Sat.:	271	2165	0	0	4210	398	0	0	0	342	2377	408

Capacity Analysis Module:

Vol/Sat:	0.22	0.22	0.00	0.00	0.19	0.19	0.00	0.00	0.00	0.32	0.32	0.32
Crit Moves:	****											
Green/Cycle:	0.35	0.35	0.00	0.00	0.35	0.35	0.00	0.00	0.00	0.52	0.52	0.52
Volume/Cap:	0.64	0.64	0.00	0.00	0.56	0.56	0.00	0.00	0.00	0.61	0.61	0.61
Delay/Veh:	18.0	18.0	0.0	0.0	16.2	16.2	0.0	0.0	0.0	11.0	11.0	11.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	18.0	18.0	0.0	0.0	16.2	16.2	0.0	0.0	0.0	11.0	11.0	11.0
DesignQueue:	1	11	0	0	19	2	0	0	0	2	13	2

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Uptown Project Traffic Impact Analysis  
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ACCMA Analysis

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #20 Broadway/ 17th St.  
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Cycle (sec): 60 Critical Vol./Cap. (X): 0.593  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 14.0  
Optimal Cycle: 60 Level Of Service: B

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	27	0	0	27	0	0	25	0	0	0	0
Lanes:	0	0	1	1	0	0	0	1	2	0	1	1

Volume Module:

Base Vol:	0	358	82	109	635	0	80	398	63	0	0	0
Growth Adj:	1.02	1.02	1.02	1.07	1.07	1.07	1.34	1.34	1.34	1.00	1.00	1.00
Initial Bse:	0	365	84	117	679	0	107	533	84	0	0	0
Added Vol:	0	0	0	0	0	0	0	37	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	365	84	117	679	0	107	570	84	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	406	93	130	755	0	119	634	94	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	406	93	130	755	0	119	634	94	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	406	93	130	755	0	119	634	94	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.75	0.75	0.60	0.60	1.00	0.88	0.75	0.75	1.00	1.00	1.00
Lanes:	0.00	1.63	0.37	0.44	2.56	0.00	1.00	1.74	0.26	0.00	0.00	0.00
Final Sat.:	0	2313	530	499	2904	0	1678	2499	370	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.18	0.18	0.26	0.26	0.00	0.07	0.25	0.25	0.00	0.00	0.00
Crit Moves:	****											
Green/Cycle:	0.00	0.45	0.45	0.45	0.45	0.00	0.42	0.42	0.42	0.00	0.00	0.00
Volume/Cap:	0.00	0.39	0.39	0.58	0.58	0.00	0.17	0.61	0.61	0.00	0.00	0.00
Delay/Veh:	0.0	11.9	11.9	13.9	13.9	0.0	11.5	16.0	16.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	11.9	11.9	13.9	13.9	0.0	11.5	16.0	16.0	0.0	0.0	0.0
DesignQueue:	0	8	2	2	14	0	2	13	2	0	0	0

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Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #21 Broadway/ 15th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.482  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 8.8  
Optimal Cycle: 33 Level of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	25	0	0	25	0	0	0	0	0	0	0
Lanes:	0	0	2	0	0	2	0	0	0	0	0	2

Volume Module:

Base Vol:	0	556	0	0	720	0	0	0	0	0	0	250
Growth Adj:	1.04	1.04	1.04	1.01	1.01	1.01	1.00	1.00	1.00	1.08	1.08	1.08
Initial Bse:	0	578	0	0	727	0	0	0	0	0	0	270
Added Vol:	0	54	0	0	29	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	632	0	0	756	0	0	0	0	0	0	270
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	702	0	0	840	0	0	0	0	0	0	300
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	702	0	0	840	0	0	0	0	0	0	300
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	702	0	0	840	0	0	0	0	0	0	300

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.77	1.00	1.00	0.77	1.00	1.00	1.00	1.00	1.00	1.00	0.61
Lanes:	0.00	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
Final Sat.:	0	2924	0	0	2924	0	0	0	0	0	0	2302

Capacity Analysis Module:

Vol/Sat:	0.00	0.24	0.00	0.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.13
Crit Moves:	****											
Green/Cycle:	0.00	0.60	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.27
Volume/Cap:	0.00	0.40	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.48
Delay/Veh:	0.0	6.6	0.0	0.0	7.1	0.0	0.0	0.0	0.0	0.0	0.0	19.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	6.6	0.0	0.0	7.1	0.0	0.0	0.0	0.0	0.0	0.0	19.0
DesignQueue:	0	10	0	0	12	0	0	0	0	0	0	7

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Intersection #22 Broadway/ 14th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.615  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 14.3  
Optimal Cycle: 60 Level of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	26	0	0	26	0	0	26	0	0	26	0
Lanes:	0	0	1	0	0	1	0	0	1	0	0	1

Volume Module:

Base Vol:	0	433	29	0	921	87	0	273	152	0	397	106
Growth Adj:	1.05	1.05	1.05	1.04	1.04	1.04	1.01	1.01	1.01	1.22	1.22	1.22
Initial Bse:	0	455	30	0	958	90	0	276	154	0	484	129
Added Vol:	0	22	0	0	29	0	0	0	0	0	0	32
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	477	30	0	987	90	0	276	154	0	484	161
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	530	34	0	1096	101	0	306	171	0	538	179
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	530	34	0	1096	101	0	306	171	0	538	179
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	530	34	0	1096	101	0	306	171	0	538	179

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.76	0.76	1.00	0.75	0.75	1.00	0.73	0.73	1.00	0.74	0.74
Lanes:	0.00	1.88	0.12	0.00	2.75	0.25	0.00	1.28	0.72	0.00	1.50	0.50
Final Sat.:	0	2724	174	0	3939	361	0	1777	989	0	2112	704

Capacity Analysis Module:

Vol/Sat:	0.00	0.19	0.19	0.00	0.28	0.28	0.00	0.17	0.17	0.00	0.25	0.25
Crit Moves:	****											
Green/Cycle:	0.00	0.43	0.43	0.00	0.43	0.43	0.00	0.43	0.43	0.00	0.43	0.43
Volume/Cap:	0.00	0.45	0.45	0.00	0.64	0.64	0.00	0.40	0.40	0.00	0.59	0.59
Delay/Veh:	0.0	13.1	13.1	0.0	15.1	15.1	0.0	12.6	12.6	0.0	15.0	15.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	13.1	13.1	0.0	15.1	15.1	0.0	12.6	12.6	0.0	15.0	15.0
DesignQueue:	0	10	1	0	22	2	0	6	3	0	11	4

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Intersection #23 Frontage Rd./ W. Grand Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 1.165  
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 104.7  
Optimal Cycle: 120 Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	7	0	0	7	0	0
Lanes:	1	0	1	1	0	0	1	0	1	1	0	1

Volume Module:

Base Vol:	28	157	172	84	62	5	381	309	61	95	914	298
Growth Adj:	1.00	1.00	1.00	1.12	1.12	1.12	1.41	1.41	1.41	1.17	1.17	1.17
Initial Bse:	28	157	172	94	69	6	537	436	86	111	1059	349
Added Vol:	0	0	0	0	0	0	0	101	0	0	55	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	28	157	172	94	69	6	537	537	86	111	1124	349
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	29	165	181	99	73	6	565	565	91	117	1184	367
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	165	181	99	73	6	565	565	91	117	1184	367
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	29	165	181	99	73	6	565	565	91	117	1184	367

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.83	0.83	0.93	0.93	0.81	0.90	0.89	0.89	0.90	0.87	0.87
Lanes:	1.00	1.00	1.00	0.58	0.42	1.00	1.00	1.72	0.28	1.00	1.53	0.47
Final Sat.:	1718	1584	1584	1012	747	1537	1718	2900	465	1718	2529	784

Capacity Analysis Module:

Vol/Sat:	0.02	0.10	0.11	0.10	0.10	0.00	0.33	0.19	0.19	0.07	0.47	0.47
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.10	0.10	0.10	0.08	0.08	0.08	0.28	0.51	0.51	0.18	0.40	0.40
Volume/Cap:	0.17	1.06	1.16	1.16	1.16	0.05	1.16	0.38	0.38	0.38	1.16	1.16
Delay/Veh:	50.2	122	158.5	180.0	180	50.7	137.6	18.2	18.2	44.4	119	118.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	50.2	122	158.5	180.0	180	50.7	137.6	18.2	18.2	44.4	119	118.5
DesignQueue:	2	10	11	6	5	0	29	19	3	7	53	16

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1997 HCM Operations Method (Future Volume Alternative)

Intersection #24 Mandela Pkwy/ W. Grand Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.541  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 25.1  
Optimal Cycle: 118 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	30	0	0	30	0	0	80	0	0	80	0
Lanes:	0	1	0	1	0	1	0	1	0	1	0	1

Volume Module:

Base Vol:	107	144	127	35	132	105	127	332	57	220	604	25
Growth Adj:	1.09	1.09	1.09	1.41	1.41	1.41	1.64	1.64	1.64	1.30	1.30	1.30
Initial Bse:	117	157	138	49	186	148	208	544	93	286	785	33
Added Vol:	0	0	0	0	0	0	0	101	0	0	55	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	117	157	138	49	186	148	208	645	93	286	840	33
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	130	174	154	55	207	165	231	717	104	318	934	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	130	174	154	55	207	165	231	717	104	318	934	36
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	130	174	154	55	207	165	231	717	104	318	934	36

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.54	0.54	0.54	0.63	0.63	0.63	0.24	0.89	0.89	0.29	0.90	0.90
Lanes:	0.57	0.76	0.67	0.26	0.97	0.77	1.00	1.75	0.25	1.00	1.93	0.07
Final Sat.:	585	787	694	310	1167	929	458	2945	426	544	3289	127

Capacity Analysis Module:

Vol/Sat:	0.22	0.22	0.22	0.18	0.18	0.18	0.51	0.24	0.24	0.58	0.28	0.28
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.27	0.27	0.27	0.27	0.27	0.27	0.67	0.67	0.67	0.67	0.67	0.67
Volume/Cap:	0.83	0.83	0.83	0.66	0.66	0.66	0.76	0.37	0.37	0.88	0.43	0.43
Delay/Veh:	55.0	55.0	55.0	44.6	44.6	44.6	29.6	9.3	9.3	40.3	9.9	9.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	55.0	55.0	55.0	44.6	44.6	44.6	29.6	9.3	9.3	40.3	9.9	9.9
DesignQueue:	7	9	8	3	10	8	5	17	2	7	22	1



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Intersection #25 Northgate Ave./ W. Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.854  
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 49.6  
Optimal Cycle: 83 Level Of Service: D

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Protected	Protected	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0	18 0 18	13 30 0	0 30 0
Lanes:	0 0 0 0 0	2 0 0 0 1	1 0 2 0 0	0 0 1 1 0

Volume Module:

Base Vol:	0 0 0	140 0 70	338 737 0	0 647 406
Growth Adj:	1.00 1.00 1.00	1.05 1.05 1.05	1.19 1.19 1.19	1.16 1.16 1.16
Initial Bse:	0 0 0	147 0 74	402 877 0	0 751 471
Added Vol:	0 0 0	48 0 24	24 59 0	0 16 15
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	0 0 0	195 0 98	426 936 0	0 767 486
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.95 0.95 0.95	0.95 0.95 0.95	0.95 0.95 0.95	0.95 0.95 0.95
PHF Volume:	0 0 0	205 0 103	449 985 0	0 807 512
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	0 0 0	205 0 103	449 985 0	0 807 512
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	0 0 0	205 0 103	449 985 0	0 807 512

Saturation Flow Module:

Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjustment:	1.00 1.00 1.00	0.92 1.00 0.72	0.95 0.88 1.00	1.00 0.83 0.83
Lanes:	0.00 0.00 0.00	2.00 0.00 1.00	1.00 2.00 0.00	0.00 1.22 0.78
Final Sat.:	0 0 0	3502 0 1373	1805 3339 0	0 1925 1220

Capacity Analysis Module:

Vol/Sat:	0.00 0.00 0.00	0.06 0.00 0.07	0.25 0.30 0.00	0.00 0.42 0.42
Crit Moves:	****	****	****	****
Green/Cycle:	0.00 0.00 0.00	0.23 0.00 0.23	0.23 0.63 0.00	0.00 0.39 0.39
Volume/Cap:	0.00 0.00 0.00	0.26 0.00 0.33	1.07 0.47 0.00	0.00 1.07 1.07
Delay/Veh:	0.0 0.0 0.0	26.3 0.0 28.8	94.0 8.7 0.0	0.0 70.3 70.3
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	0.0 0.0 0.0	26.3 0.0 28.8	94.0 8.7 0.0	0.0 70.3 70.3
DesignQueue:	0 0 0	7 0 4	16 18 0	0 24 15

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Intersection #26 Webster St./Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.751  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 23.8  
Optimal Cycle: 75 Level Of Service: C

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Permitted	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0	0 23 0	0 31 0	13 31 0
Lanes:	0 0 0 0 0	0 1 0 0 1	0 1 0 1 0	1 0 1 1 0

Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol:	0 0 0	80 284 76	14 577 169	95 312 22
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.28 1.28 1.28	1.29 1.29 1.29
Initial Bse:	0 0 0	80 284 76	18 739 216	123 402 28
Added Vol:	0 0 0	0 0 0	0 64 0	0 117 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	0 0 0	80 284 76	18 803 216	123 519 28
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.94 0.94 0.94	0.94 0.94 0.94	0.94 0.94 0.94	0.94 0.94 0.94
PHF Volume:	0 0 0	85 303 81	19 855 231	131 554 30
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	0 0 0	85 303 81	19 855 231	131 554 30
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	0 0 0	85 303 81	19 855 231	131 554 30

Saturation Flow Module:

Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjustment:	1.00 1.00 1.00	0.85 0.85 0.72	0.80 0.80 0.80	0.95 0.87 0.87
Lanes:	0.00 0.00 0.00	0.22 0.78 1.00	0.03 1.55 0.42	1.00 1.90 0.10
Final Sat.:	0 0 0	355 1260 1373	53 2352 634	1805 3141 172

Capacity Analysis Module:

Vol/Sat:	0.00 0.00 0.00	0.24 0.24 0.06	0.36 0.36 0.36	0.07 0.18 0.18
Crit Moves:	****	****	****	****
Green/Cycle:	0.00 0.00 0.00	0.29 0.29 0.29	0.44 0.44 0.44	0.16 0.61 0.61
Volume/Cap:	0.00 0.00 0.00	0.82 0.82 0.20	0.82 0.82 0.82	0.45 0.29 0.29
Delay/Veh:	0.0 0.0 0.0	40.8 40.8 22.3	25.1 25.1 25.1	35.1 7.9 7.9
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	0.0 0.0 0.0	40.8 40.8 22.3	25.1 25.1 25.1	35.1 7.9 7.9
DesignQueue:	0 0 0	3 10 3	1 23 6	5 10 1

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1997 HCM Operations Method (Future Volume Alternative)

Intersection #27 Harrison St./ Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 1.061  
Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 49.7  
Optimal Cycle: 120 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	2	0	1	1	2	0	1	2	0	1

Volume Module:

Base Vol:	8	1618	738	0	614	73	164	522	172	311	512	105
Growth Adj:	1.08	1.08	1.08	1.14	1.14	1.14	1.30	1.30	1.30	1.11	1.11	1.11
Initial Bse:	9	1747	797	0	700	83	213	679	224	345	568	117
Added Vol:	0	3	0	0	6	23	13	51	0	0	94	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	9	1750	797	0	706	106	226	730	224	345	662	117
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	9	1843	839	0	743	112	238	768	235	363	697	123
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	1843	839	0	743	112	238	768	235	363	697	123
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	9	1843	839	0	743	112	238	768	235	363	697	123

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.29	0.95	0.85	0.91	0.89	0.89	0.92	0.92	0.92	0.92	0.93	0.93
Lanes:	1.00	2.00	1.00	0.00	2.61	0.39	2.00	1.53	0.47	2.00	1.70	0.30
Final Sat.:	553	3610	1615	0	4418	665	3502	2666	817	3502	3002	528

Capacity Analysis Module:

Vol/Sat:	0.02	0.51	0.52	0.00	0.17	0.17	0.07	0.29	0.29	0.10	0.23	0.23
Crit Moves:	0.48	0.48	0.58	0.00	0.48	0.48	0.08	0.27	0.27	0.10	0.29	0.29
Green/Cycle:	0.48	0.48	0.58	0.00	0.48	0.48	0.08	0.27	0.27	0.10	0.29	0.29
Volume/Cap:	0.03	1.06	0.90	0.00	0.35	0.35	0.81	1.06	1.06	1.06	0.81	0.81
Delay/Veh:	11.0	60.8	26.1	0.0	13.0	13.0	51.9	76.1	76.1	101.9	31.7	31.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.0	60.8	26.1	0.0	13.0	13.0	51.9	76.1	76.1	101.9	31.7	31.7
DesignQueue:	0	49	18	0	18	3	10	27	8	15	23	4

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1997 HCM Operations Method (Future Volume Alternative)

Intersection #28 El Embarcadero / Grand Ave.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.930  
Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 30.9  
Optimal Cycle: 120 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	20	0	0	0	0	0	0	30	0	10	30	0
Lanes:	1	0	0	0	0	0	0	0	2	1	0	2

Volume Module: >> Count Date: 9 Jul 2003 <<

Base Vol:	232	0	223	0	0	0	0	1039	743	301	603	0
Growth Adj:	1.12	1.12	1.12	1.00	1.00	1.00	1.07	1.07	1.07	1.03	1.03	1.03
Initial Bse:	260	0	250	0	0	0	0	1112	795	310	621	0
Added Vol:	58	0	0	0	0	0	0	51	0	0	36	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	318	0	250	0	0	0	0	1163	795	310	657	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	330	0	260	0	0	0	0	1208	826	322	683	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	330	0	260	0	0	0	0	1208	826	322	683	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	330	0	260	0	0	0	0	1208	826	322	683	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	1.00	1.00	1.00	1.00	0.95	0.68	0.95	0.85	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	2.00	1.00	2.00	0.00
Final Sat.:	1805	0	1615	0	0	0	0	3610	1292	1805	3249	0

Capacity Analysis Module:

Vol/Sat:	0.18	0.00	0.16	0.00	0.00	0.00	0.00	0.33	0.64	0.18	0.21	0.00
Crit Moves:	0.20	0.00	0.20	0.00	0.00	0.00	0.00	0.48	0.68	0.20	0.68	0.00
Green/Cycle:	0.20	0.00	0.20	0.00	0.00	0.00	0.00	0.48	0.68	0.20	0.68	0.00
Volume/Cap:	0.92	0.00	0.80	0.00	0.00	0.00	0.00	0.69	0.94	0.91	0.31	0.00
Delay/Veh:	66.3	0.0	51.7	0.0	0.0	0.0	0.0	21.3	30.7	65.7	6.6	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	66.3	0.0	51.7	0.0	0.0	0.0	0.0	21.3	30.7	65.7	6.6	0.0
DesignQueue:	15	0	12	0	0	0	0	38	16	15	13	0

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1997 HCM Operations Method (Future Volume Alternative)

Intersection #29 MacArthur Blvd./ Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.905  
Loss Time (sec): 12 (Y+R = 8 sec) Average Delay (sec/veh): 34.1  
Optimal Cycle: 99 Level Of Service: C

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Permitted	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	0 25 0	0 20 0	15 20 0
Lanes:	0 0 0 0 0	0 1 1 1 0	0 0 2 0 1	1 0 3 0 0

Volume Module: >> Count Date: 9 Nov 2000 <<

	North Bound	South Bound	East Bound	West Bound
Base Vol:	0 0 0	278 650 225	0 657 497	239 710 0
Growth Adj:	1.00 1.00 1.00	1.01 1.01 1.01	1.05 1.05 1.05	1.04 1.04 1.04
Initial Bse:	0 0 0	281 657 227	0 690 522	249 738 0
Added Vol:	0 0 0	0 0 0	0 0 0	51 0 36 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0 0
Initial Fut:	0 0 0	281 657 227	0 690 573	249 774 0
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.95 0.95 0.95	0.95 0.95 0.95	0.95 0.95 0.95	0.95 0.95 0.95
PHF Volume:	0 0 0	296 691 239	0 726 603	262 815 0
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0 0
Reduced Vol:	0 0 0	296 691 239	0 726 603	262 815 0
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	0 0 0	296 691 239	0 726 603	262 815 0

Saturation Flow Module:

Sat/Lane:	North Bound	South Bound	East Bound	West Bound
Adjustment:	1.00 1.00 1.00	0.86 0.86 0.86	1.00 0.95 0.85	0.95 0.91 1.00
Lanes:	0.00 0.00 0.00	0.72 1.69 0.59	0.00 2.00 1.00	1.00 3.00 0.00
Final Sat.:	0 0 0	1179 2757 954	0 3610 1615	1805 5187 0

Capacity Analysis Module:

Vol/Sat:	North Bound	South Bound	East Bound	West Bound
Crit Moves:	0.00 0.00 0.00	0.31 0.31 0.31	0.00 0.35 0.35	0.19 0.54 0.00
Green/Cycle:	0.00 0.00 0.00	0.80 0.80 0.80	0.00 0.57 1.07	0.77 0.29 0.00
Volume/Cap:	0.00 0.00 0.00	29.8 29.8 29.8	0.0 23.1 82.9	46.6 10.4 0.0
Delay/Veh:	0.0 0.0 0.0	29.8 29.8 29.8	0.0 23.1 82.9	46.6 10.4 0.0
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	0.0 0.0 0.0	29.8 29.8 29.8	0.0 23.1 82.9	46.6 10.4 0.0
DesignQueue:	0 0 0	10 22 8	0 22 19	10 17 0

Uptown Project Traffic Impact Analysis  
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ACCMA Analysis

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #30 MacArthur Blvd./ Lake Shore Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.730  
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 26.7  
Optimal Cycle: 76 Level Of Service: C

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Permitted	Prot+Permit
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	0 22 0	0 30 0	12 30 0
Lanes:	0 0 0 0 0	1 1 2 0 1	0 0 2 0 1	1 0 2 0 0

Volume Module: >> Count Date: 9 Jul 2003 <<

	North Bound	South Bound	East Bound	West Bound
Base Vol:	0 0 0	220 1021 104	0 485 385	320 512 0
Growth Adj:	1.00 1.00 1.00	1.01 1.01 1.01	1.11 1.11 1.11	1.00 1.00 1.00
Initial Bse:	0 0 0	222 1031 105	0 538 427	320 512 0
Added Vol:	0 0 0	0 51 0	0 0 0	0 58 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	0 0 0	222 1082 105	0 538 427	320 570 0
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.92 0.92 0.92	0.92 0.92 0.92	0.92 0.92 0.92	0.92 0.92 0.92
PHF Volume:	0 0 0	241 1174 114	0 584 463	347 618 0
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	0 0 0	241 1174 114	0 584 463	347 618 0
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	0 0 0	241 1174 114	0 584 463	347 618 0

Saturation Flow Module:

Sat/Lane:	North Bound	South Bound	East Bound	West Bound
Adjustment:	1.00 1.00 1.00	0.77 0.77 0.85	1.00 0.95 0.85	0.51 0.95 1.00
Lanes:	0.00 0.00 0.00	1.00 3.00 1.00	0.00 2.00 1.00	1.00 2.00 0.00
Final Sat.:	0 0 0	1470 4409 1615	0 3610 1615	975 3610 0

Capacity Analysis Module:

Vol/Sat:	North Bound	South Bound	East Bound	West Bound
Crit Moves:	0.00 0.00 0.00	0.16 0.27 0.07	0.00 0.16 0.29	0.36 0.17 0.00
Green/Cycle:	0.00 0.00 0.00	0.28 0.28 0.28	0.00 0.38 0.38	0.57 0.57 0.00
Volume/Cap:	0.00 0.00 0.00	0.59 0.97 0.26	0.00 0.43 0.77	0.62 0.30 0.00
Delay/Veh:	0.0 0.0 0.0	25.5 44.5 22.9	0.0 18.9 27.7	12.3 8.8 0.0
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	0.0 0.0 0.0	25.5 44.5 22.9	0.0 18.9 27.7	12.3 8.8 0.0
DesignQueue:	0 0 0	8 40 4	0 17 14	13 12 0

Uptown Project Traffic Impact Analysis  
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ACCOMA Analysis

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #31 Lake Park Ave./ Lake Shore Ave.  
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Cycle (sec): 90 Critical Vol./Cap. (X): 0.789  
Loss Time (sec): 16 (Y+R = 12 sec) Average Delay (sec/veh): 40.3  
Optimal Cycle: 82 Level Of Service: D

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	20	20	20	8	0	8	13	25	0	0	25	0
Lanes:	1	0	1	0	0	1	1	0	2	0	0	1

Volume Module: >> Count Date: 17 Jul 2003 <<

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	360	456	227	75	0	81	269	459	0	0	336	212
Growth Adj:	1.02	1.02	1.02	1.19	1.19	1.19	1.03	1.03	1.03	1.00	1.00	1.00
Initial Bse:	367	465	232	89	0	96	277	473	0	0	336	212
Added Vol:	58	36	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	425	501	232	89	0	96	277	473	0	0	336	212
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	439	518	239	92	0	100	286	488	0	0	347	219
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	439	518	239	92	0	100	286	488	0	0	347	219
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	439	518	239	92	0	100	286	488	0	0	347	219

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.95	1.00	1.00	0.89	0.89
Lanes:	1.00	1.00	1.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.23	0.77
Final Sat.:	1805	1900	1615	1805	0	1615	1805	3610	0	0	2085	1316

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	0.24	0.27	0.15	0.05	0.00	0.06	0.16	0.14	0.00	0.00	0.17	0.17
Green/Cycle:	0.29	0.29	0.29	0.09	0.00	0.09	0.17	0.45	0.00	0.00	0.28	0.28
Volume/Cap:	0.85	0.95	0.51	0.57	0.00	0.69	0.95	0.30	0.00	0.00	0.60	0.60
Delay/Veh:	42.3	57.1	27.8	44.4	0.0	53.5	74.6	16.1	0.0	0.0	29.2	29.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	42.3	57.1	27.8	44.4	0.0	53.5	74.6	16.1	0.0	0.0	29.2	29.2
DesignQueue:	17	20	9	4	0	5	12	14	0	0	13	8

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Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #32 Brush St./ 18th St.  
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Cycle (sec): 70 Critical Vol./Cap. (X): 0.373  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 10.7  
Optimal Cycle: 61 Level Of Service: B

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	45	0	0	0	0	0	8	0
Lanes:	0	0	0	0	3	1	0	0	0	1	0	2

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	0	1000	84	0	0	0	150	196	0
Growth Adj:	1.00	1.00	1.00	1.02	1.02	1.02	1.00	1.00	1.00	1.04	1.04	1.04
Initial Bse:	0	0	0	0	1020	86	0	0	0	156	204	0
Added Vol:	0	0	0	0	0	0	0	0	0	63	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	1020	86	0	0	0	219	204	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	0	0	1133	95	0	0	0	243	226	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	1133	95	0	0	0	243	226	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	0	1133	95	0	0	0	243	226	0

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	1.00	1.00	1.00	1.00	0.90	0.90	1.00	1.00	1.00	0.85	0.95	1.00
Lanes:	0.00	0.00	0.00	0.00	3.69	0.31	0.00	0.00	0.00	1.00	2.00	0.00
Final Sat.:	0	0	0	0	6304	529	0	0	0	1615	3610	0

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	0.00	0.00	0.00	0.00	0.18	0.18	0.00	0.00	0.00	0.15	0.06	0.00
Green/Cycle:	0.00	0.00	0.00	0.00	0.64	0.64	0.00	0.00	0.00	0.24	0.24	0.00
Volume/Cap:	0.00	0.00	0.00	0.00	0.28	0.28	0.00	0.00	0.00	0.62	0.26	0.00
Delay/Veh:	0.0	0.0	0.0	0.0	5.5	5.5	0.0	0.0	0.0	26.7	21.6	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	0.0	5.5	5.5	0.0	0.0	0.0	26.7	21.6	0.0
DesignQueue:	0	0	0	0	16	1	0	0	0	7	7	0

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Uptown Project Traffic Impact Analysis
Year 2010 Plus Project - PM Peak Hour
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #33 18th St./ Castro St.
Cycle (sec): 40 Critical Vol./Cap. (X): 0.870
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 43.3
Optimal Cycle: 57 Level Of Service: D
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 20 0 0 0 0 0 0 0 0 13 0
Lanes: 1 1 3 0 0 0 0 0 0 0 0 1 1
Volume Module:
Base Vol: 212 1698 0 0 0 0 0 0 0 0 115 737
Growth Adj: 1.02 1.02 1.02 1.00 1.00 1.00 1.00 1.00 1.00 1.24 1.24 1.24
Initial Bse: 216 1732 0 0 0 0 0 0 0 0 143 914
Added Vol: 0 0 0 0 0 0 0 0 0 0 63 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 216 1732 0 0 0 0 0 0 0 0 206 914
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 240 1924 0 0 0 0 0 0 0 0 228 1015
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 240 1924 0 0 0 0 0 0 0 0 228 1015
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 240 1924 0 0 0 0 0 0 0 0 228 1015
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.77 0.77 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.88 0.88
Lanes: 1.00 4.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.37 1.63
Final Sat.: 1470 5879 0 0 0 0 0 0 0 0 613 2724
Capacity Analysis Module:
Vol/Sat: 0.16 0.33 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.37 0.37
Crit Moves: \*\*\*\*
Green/Cycle: 0.49 0.49 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.32 0.32
Volume/Cap: 0.34 0.67 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 1.18 1.18
Delay/Veh: 6.6 9.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 103 103.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 6.6 9.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 103 103.2
DesignQueue: 3 24 0 0 0 0 0 0 0 0 4 17

Uptown Project Traffic Impact Analysis
Year 2010 Plus Project - PM Peak Hour
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #34 MLK Jr. Way/ 18th St.
Cycle (sec): 60 Critical Vol./Cap. (X): 0.447
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 13.7
Optimal Cycle: 62 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 27 0 0 27 0 0 0 0 0 27 0
Lanes: 0 1 1 0 0 0 0 1 1 0 0 0 0 0 0 1 0 2 1 0
Volume Module: >> Count Date: 8 Jul 2003 <<
Base Vol: 63 134 0 0 182 133 0 0 0 18 725 0
Growth Adj: 1.05 1.05 1.05 1.10 1.10 1.10 1.00 1.00 1.00 1.54 1.54 1.54
Initial Bse: 66 141 0 0 200 146 0 0 0 28 1117 0
Added Vol: 0 0 0 0 0 0 0 0 0 4 63 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 66 141 0 0 200 146 0 0 0 32 1180 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 74 156 0 0 222 163 0 0 0 35 1311 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 74 156 0 0 222 163 0 0 0 35 1311 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 74 156 0 0 222 163 0 0 0 35 1311 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.67 0.67 1.00 1.00 0.82 0.82 1.00 1.00 1.00 1.00 0.86 0.91
Lanes: 0.64 1.36 0.00 0.00 1.16 0.84 0.00 0.00 0.00 1.00 3.00 0.00
Final Sat.: 819 1742 0 0 1808 1321 0 0 0 1900 4928 0
Capacity Analysis Module:
Vol/Sat: 0.09 0.09 0.00 0.00 0.12 0.12 0.00 0.00 0.00 0.02 0.27 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.44 0.44 0.00 0.00 0.44 0.44 0.00 0.00 0.00 0.44 0.44 0.00
Volume/Cap: 0.21 0.21 0.00 0.00 0.28 0.28 0.00 0.00 0.00 0.04 0.61 0.00
Delay/Veh: 11.3 11.3 0.0 0.0 11.8 11.8 0.0 0.0 0.0 10.2 14.8 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 11.3 11.3 0.0 0.0 11.8 11.8 0.0 0.0 0.0 10.2 14.8 0.0
DesignQueue: 1 3 0 0 4 3 0 0 0 1 27 0

Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour  
ACCMA Analysis

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #35 Brush St. / 17th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.398  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 10.7  
Optimal Cycle: 48 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	35	0	0	5	0	0	0	0
Lanes:	0	0	0	1	1	2	0	0	1	0	0	0

Volume Module:

Base Vol:	0	0	0	759	394	0	0	245	179	0	0	0
Growth Adj:	1.00	1.00	1.00	1.03	1.03	1.03	1.14	1.14	1.14	1.00	1.00	1.00
Initial Bse:	0	0	0	782	406	0	0	279	204	0	0	0
Added Vol:	0	0	0	0	63	0	0	29	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	782	469	0	0	308	204	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	0	869	521	0	0	343	227	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	869	521	0	0	343	227	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	869	521	0	0	343	227	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.77	0.77	1.00	1.00	0.89	0.89	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	2.00	0.00	0.00	1.20	0.80	0.00	0.00	0.00
Final Sat.:	0	0	0	2939	2939	0	0	2042	1352	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.30	0.18	0.00	0.00	0.17	0.17	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.00	0.00	0.58	0.58	0.00	0.00	0.28	0.28	0.00	0.00	0.00
Volume/Cap:	0.00	0.00	0.00	0.51	0.30	0.00	0.00	0.59	0.59	0.00	0.00	0.00
Delay/Veh:	0.0	0.0	0.0	7.5	6.4	0.0	0.0	19.5	19.5	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	7.5	6.4	0.0	0.0	19.5	19.5	0.0	0.0	0.0
DesignQueue:	0	0	0	13	8	0	0	9	6	0	0	0

Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour  
ACCMA Analysis

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #36 17th St / Castro St / I-980-Off-Ramp

Cycle (sec): 85 Critical Vol./Cap. (X): 0.751  
Loss Time (sec): 12 (Y+R = 6 sec) Average Delay (sec/veh): 29.9  
Optimal Cycle: 64 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	10	0	0	0	0	0	20	0	0	20	0
Lanes:	0	0	1	0	0	0	0	3	0	0	2	1

Volume Module:

Base Vol:	0	645	31	0	0	0	216	707	0	0	1371	68
Growth Adj:	1.04	1.04	1.04	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	671	32	0	0	0	216	707	0	0	1371	68
Added Vol:	0	0	87	0	0	0	0	29	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	671	119	0	0	0	216	736	0	0	1371	68
User Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	671	119	0	0	0	216	736	0	0	1371	68
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	671	119	0	0	0	216	736	0	0	1371	68
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	671	119	0	0	0	216	736	0	0	1371	68

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.93	0.93	1.00	1.00	1.00	0.95	0.91	1.00	1.00	1.00	0.90
Lanes:	0.00	1.70	0.30	0.00	0.00	0.00	1.00	3.00	0.00	0.00	2.86	0.14
Final Sat.:	0	2995	532	0	0	0	1805	5187	0	0	4907	243

Capacity Analysis Module:

Vol/Sat:	0.00	0.22	0.22	0.00	0.00	0.00	0.12	0.14	0.00	0.00	0.28	0.28
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.28	0.28	0.00	0.00	0.00	0.24	0.24	0.00	0.00	0.35	0.35
Volume/Cap:	0.00	0.81	0.81	0.00	0.00	0.00	0.51	0.60	0.00	0.00	0.81	0.81
Delay/Veh:	0.0	33.6	33.6	0.0	0.0	0.0	29.3	29.8	0.0	0.0	28.1	28.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	33.6	33.6	0.0	0.0	0.0	29.3	29.8	0.0	0.0	28.1	28.1
DesignQueue:	0	24	4	0	0	0	8	28	0	0	45	2

Uptown Project Traffic Impact Analysis
Year 2010 Plus Project - PM Peak Hour
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #37 MLK Jr. Way/ 17th St

Cycle (sec): 60 Critical Vol./Cap. (X): 0.247
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 10.9
Optimal Cycle: 58 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 25 0 0 25 0 0 25 0 0 0 0 0
Lanes: 0 0 1 1 0 0 1 1 0 0 1 2 1 0 0 0 0 0 0

Volume Module: >> Count Date: 8 Jul 2003 <<
Base Vol: 0 170 29 21 191 0 10 478 45 0 0 0
Growth Adj: 1.20 1.20 1.20 1.23 1.23 1.23 1.07 1.07 1.07 1.00 1.00 1.00
Initial Bse: 0 204 35 26 235 0 11 511 48 0 0 0
Added Vol: 0 0 0 7 0 4 0 0 115 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 204 42 26 239 0 11 626 48 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 227 46 29 265 0 12 696 54 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 227 46 29 265 0 12 696 54 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 227 46 29 265 0 12 696 53 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.93 0.93 0.79 0.79 1.00 0.86 0.86 0.86 1.00 1.00 1.00
Lanes: 0.00 1.66 0.34 0.20 1.80 0.00 0.06 3.66 0.28 0.00 0.00 0.00
Final Sat.: 0 2921 599 294 2718 0 102 5964 458 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.08 0.08 0.10 0.10 0.00 0.12 0.12 0.12 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.42 0.42 0.42 0.42 0.00 0.45 0.45 0.45 0.00 0.00 0.00
Volume/Cap: 0.00 0.19 0.19 0.23 0.23 0.00 0.26 0.26 0.26 0.00 0.00 0.00
Delay/Veh: 0.0 11.3 11.3 11.8 11.8 0.0 10.5 10.5 10.5 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 11.3 11.3 11.8 11.8 0.0 10.5 10.5 10.5 0.0 0.0 0.0
DesignQueue: 0 4 1 1 5 0 0 13 1 0 0 0

Uptown Project Traffic Impact Analysis
Year 2010 Plus Project - PM Peak Hour
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #38 Jefferson St./ 17th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.229
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 10.5
Optimal Cycle: 59 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 25 0 0 25 0 0 26 0 0 0 0 0
Lanes: 0 0 1 1 0 0 1 1 0 0 1 2 1 0 0 0 0 0 0

Volume Module: >> Count Date: 8 Jul 2003 <<
Base Vol: 0 157 52 7 57 0 24 429 44 0 0 0
Growth Adj: 1.20 1.20 1.20 1.23 1.23 1.23 1.07 1.07 1.07 1.00 1.00 1.00
Initial Bse: 0 188 62 9 70 0 26 459 47 0 0 0
Added Vol: 0 0 0 0 0 0 0 0 123 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 188 62 9 70 0 26 582 47 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 209 69 10 78 0 29 647 52 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 209 69 10 78 0 29 647 52 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 209 69 10 78 0 29 647 52 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.85 0.85 0.80 0.80 1.00 0.86 0.86 0.86 1.00 1.00 1.00
Lanes: 0.00 1.50 0.50 0.22 1.78 0.00 0.16 3.55 0.29 0.00 0.00 0.00
Final Sat.: 0 2416 800 332 2706 0 255 5788 468 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.09 0.09 0.03 0.03 0.00 0.11 0.11 0.11 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.42 0.42 0.42 0.42 0.00 0.45 0.45 0.45 0.00 0.00 0.00
Volume/Cap: 0.00 0.21 0.21 0.07 0.07 0.00 0.25 0.25 0.25 0.00 0.00 0.00
Delay/Veh: 0.0 11.3 11.3 10.5 10.5 0.0 10.3 10.3 10.3 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 11.3 11.3 10.5 10.5 0.0 10.3 10.3 10.3 0.0 0.0 0.0
DesignQueue: 0 4 1 0 2 0 1 12 1 0 0 0

Uptown Project Traffic Impact Analysis
Year 2010 Plus Project - PM Peak Hour
ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #39 Franklin St./ 17th St.
Cycle (sec): 45 Critical Vol./Cap. (X): 0.499
Loss Time (sec): 8 (Y+R = 7 sec) Average Delay (sec/veh): 26.4
Optimal Cycle: 45 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 23 0 0 0 0 0 14 0 0 0 0 0
Lanes: 0 0 3 1 0 0 0 0 0 0 0 0 0 0
Volume Module: >> Count Date: 8 Jul 2003 <<
Base Vol: 0 440 109 0 0 0 120 455 0 0 0 0
Growth Adj: 1.06 1.06 1.06 1.00 1.00 1.00 1.31 1.31 1.31 1.00 1.00 1.00
Initial Bse: 0 466 116 0 0 0 157 596 0 0 0 0
Added Vol: 0 32 0 0 0 0 0 37 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 498 116 0 0 0 157 633 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91
PHF Volume: 0 548 127 0 0 0 173 696 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 548 127 0 0 0 173 696 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 548 127 0 0 0 173 696 0 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.85 0.85 1.00 1.00 1.00 0.75 0.75 1.00 1.00 1.00 1.00
Lanes: 0.00 3.25 0.75 0.00 0.00 0.00 0.40 1.60 0.00 0.00 0.00 0.00
Final Sat.: 0 5253 1218 0 0 0 565 2274 0 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.10 0.10 0.00 0.00 0.00 0.31 0.31 0.00 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.51 0.51 0.00 0.00 0.00 0.31 0.31 0.00 0.00 0.00 0.00
Volume/Cap: 0.00 0.20 0.20 0.00 0.00 0.00 0.98 0.98 0.00 0.00 0.00 0.00
Delay/Veh: 0.0 6.1 6.1 0.0 0.0 0.0 42.1 42.1 0.0 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 6.1 6.1 0.0 0.0 0.0 42.1 42.1 0.0 0.0 0.0 0.0
DesignQueue: 0 7 2 0 0 0 3 13 0 0 0 0

Uptown Project Traffic Impact Analysis
Year 2010 Plus Project - PM Peak Hour
ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #40 Webster St./ 17th St.
Cycle (sec): 45 Critical Vol./Cap. (X): 0.513
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 12.1
Optimal Cycle: 47 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 22 0 0 17 0 0 0 0 0
Lanes: 0 0 0 0 0 0 1 3 0 0 0 0 1 1 0 0 0 0 0 0
Volume Module: >> Count Date: 8 Jul 2003 <<
Base Vol: 0 0 0 0 94 700 0 0 354 219 0 0 0
Growth Adj: 1.00 1.00 1.00 1.10 1.10 1.10 1.19 1.19 1.19 1.00 1.00 1.00
Initial Bse: 0 0 0 103 770 0 0 421 261 0 0 0
Added Vol: 0 0 0 0 0 0 0 20 18 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 103 770 0 0 441 279 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 0 0 115 856 0 0 490 310 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 115 856 0 0 490 310 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 115 856 0 0 490 310 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.74 0.74 1.00 1.00 0.83 0.83 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 0.47 3.53 0.00 0.00 1.23 0.77 0.00 0.00 0.00
Final Sat.: 0 0 0 670 4986 0 0 1928 1217 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.17 0.17 0.00 0.00 0.25 0.25 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.00 0.00 0.47 0.47 0.00 0.00 0.36 0.36 0.00 0.00 0.00
Volume/Cap: 0.00 0.00 0.00 0.37 0.37 0.00 0.00 0.70 0.70 0.00 0.00 0.00
Delay/Veh: 0.0 0.0 0.0 8.4 8.4 0.0 0.0 16.5 16.5 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 8.4 8.4 0.0 0.0 16.5 16.5 0.0 0.0 0.0
DesignQueue: 0 0 0 2 12 0 0 9 5 0 0 0



LEVEL OF SERVICE CALCULATION WORKSHEETS  
YEAR 2010 NO PROJECT CONDITIONS – ACCMA LAND USE

Uptown Traffic Impact Analysis
Year 2010 (No Project) - PM Peak Hour
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #1 San Pablo Ave./ 31st St.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.460
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 11.0
Optimal Cycle: 82 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Protected
Rights: Include Include Include Include
Min. Green: 0 52 0 0 52 0 0 0 0 22 0 22
Lanes: 0 1 1 0 0 1 0 2 0 0 0 0 0 0 2 0 0 0 1

Volume Module: >> Count Date: 9 Jul 2003 <<

Base Vol: 0 800 0 43 622 0 0 0 0 184 0 21
Growth Adj: 1.28 1.28 1.28 1.72 1.72 1.72 1.00 1.42 1.42 1.42
Initial Bse: 0 1024 0 74 1070 0 0 0 0 261 0 30
Added Vol: 0 1 0 0 2 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 1025 0 74 1072 0 0 0 0 261 0 30
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume: 0 1051 0 76 1099 0 0 0 0 268 0 31
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1051 0 76 1099 0 0 0 0 268 0 31
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 1051 0 76 1099 0 0 0 0 268 0 31

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.85 1.00 0.22 0.85 1.00 1.00 1.00 1.00 0.92 1.00 0.68
Lanes: 0.00 2.00 0.00 1.00 2.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
Final Sat.: 0 3249 0 426 3249 0 0 0 0 3502 0 1292

Capacity Analysis Module:
Vol/Sat: 0.00 0.32 0.00 0.18 0.34 0.00 0.00 0.00 0.00 0.08 0.00 0.02
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.63 0.00 0.63 0.63 0.00 0.00 0.00 0.00 0.27 0.00 0.27
Volume/Cap: 0.00 0.51 0.00 0.28 0.53 0.00 0.00 0.00 0.00 0.29 0.00 0.09
Delay/Veh: 0.0 9.0 0.0 9.3 9.3 0.0 0.0 0.0 0.0 24.5 0.0 23.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 9.0 0.0 9.3 9.3 0.0 0.0 0.0 0.0 24.5 0.0 23.0
DesignQueue: 0 19 0 1 20 0 0 0 0 9 0 1

Uptown Traffic Impact Analysis
Year 2010 (No Project) - PM Peak Hour
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #2 San Pablo Ave./ Market St.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.482
Loss Time (sec): 8 (Y+R = 10 sec) Average Delay (sec/veh): 12.2
Optimal Cycle: 78 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 50 0 0 50 0 0 20 0 0 0 0 1 0
Lanes: 0 0 1 1 0 0 0 1 1 0 0 0 0 0 0 1

Volume Module: >> Count Date: 9 Jul 2003 <<

Base Vol: 0 749 0 0 729 167 111 144 15 0 0 0
Growth Adj: 1.11 1.11 1.11 1.00 1.00 1.00 1.63 1.63 1.63 1.82 1.82 1.82
Initial Bse: 0 831 0 0 729 167 181 235 24 0 0 0
Added Vol: 0 2 0 0 2 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 833 0 0 731 167 181 235 24 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 881 0 0 773 177 191 248 26 0 0 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 881 0 0 773 177 191 248 26 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 881 0 0 773 177 191 248 26 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.88 0.95 1.00 0.85 0.85 0.86 0.86 0.86 1.00 1.00 1.00
Lanes: 0.00 2.00 0.00 0.00 1.63 0.37 0.82 1.07 0.11 0.00 0.00 1.00
Final Sat.: 0 3339 0 0 2642 604 1351 1753 183 0 0 1900

Capacity Analysis Module:
Vol/Sat: 0.00 0.26 0.00 0.00 0.29 0.29 0.14 0.14 0.14 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.63 0.00 0.00 0.63 0.63 0.28 0.28 0.28 0.00 0.00 0.00
Volume/Cap: 0.00 0.42 0.00 0.00 0.47 0.47 0.51 0.51 0.51 0.00 0.00 0.00
Delay/Veh: 0.0 8.3 0.0 0.0 8.7 8.7 26.6 26.6 26.6 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 8.3 0.0 0.0 8.7 8.7 26.6 26.6 26.6 0.0 0.0 0.0
DesignQueue: 0 16 0 0 14 3 6 8 1 0 0 0

Uptown Traffic Impact Analysis
Year 2010 (No Project) - PM Peak Hour
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #3 San Pablo Ave. / 27th

Cycle (sec): 90 Critical Vol./Cap. (X): 1.683
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 60.9
Optimal Cycle: 120 Level Of Service: E

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Lanes.

Volume Module: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Traffic Impact Analysis
Year 2010 (No Project) - PM Peak Hour
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #4 San Pablo Ave./ West St./25th St

Cycle (sec): 90 Critical Vol./Cap. (X): 0.486
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 16.6
Optimal Cycle: 73 Level Of Service: B

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include, Split Phase), Rights, Min. Green, Lanes.

Volume Module: Count Date: 9 Jul 2003. Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Traffic Impact Analysis  
Year 2010 (No Project) - PM Peak Hour  
ACCMMA Analysis

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #5 San Pablo Ave./ Grand Ave  
\*\*\*\*\*

Cycle (sec): 80 Critical Vol./Cap. (X): 0.876  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 73.7  
Optimal Cycle: 82 Level Of Service: E

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	40	0	0	40	0	0	33	0	0	33	0
Lanes:	1	0	1	1	0	1	1	0	2	0	1	1

\*\*\*\*\*

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	112	489	14	122	373	7	31	663	33	31	677	101
Growth Adj:	1.43	1.43	1.43	1.24	1.24	1.24	1.71	1.71	1.71	1.76	1.76	1.76
Initial Bse:	160	699	20	151	463	9	53	1134	56	55	1192	178
Added Vol:	3	2	1	0	4	0	0	0	4	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	163	701	21	151	467	9	53	1134	60	57	1192	178
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	172	738	22	159	491	9	56	1193	64	60	1254	187
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	172	738	22	159	491	9	56	1193	64	60	1254	187
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	172	738	22	159	491	9	56	1193	64	60	1254	187

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Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	0.43	0.88	0.88	0.29	0.88	0.88	0.12	0.95	0.72	0.62	0.62	0.72
Lanes:	1.00	1.94	0.06	1.00	1.96	0.04	1.00	2.00	1.00	0.09	1.91	1.00
Final Sat.:	817	3229	97	547	3268	61	230	3610	1373	106	2237	1373

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Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	0.21	0.23	0.23	0.29	0.15	0.15	0.24	0.33	0.05	0.56	0.56	0.14
Green/Cycle:	0.49	0.49	0.49	0.49	0.49	0.49	0.41	0.41	0.41	0.41	0.41	0.41
Volume/Cap:	0.43	0.46	0.46	0.59	0.30	0.30	0.60	0.81	0.11	1.38	1.38	0.33
Delay/Veh:	16.4	14.4	14.4	23.7	12.7	12.7	43.7	26.2	15.3	200.0	200	18.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	16.4	14.4	14.4	23.7	12.7	12.7	43.7	26.2	15.3	200.0	200	18.1
DesignQueue:	4	18	1	4	12	0	1	35	2	2	37	5

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Uptown Traffic Impact Analysis  
Year 2010 (No Project) - PM Peak Hour  
ACCMMA Analysis

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #6 San Pablo Ave./ 20th St.  
\*\*\*\*\*

Cycle (sec): 80 Critical Vol./Cap. (X): 0.718  
Loss Time (sec): 12 (Y+R = 25 sec) Average Delay (sec/veh): 33.6  
Optimal Cycle: 62 Level Of Service: C

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Ignore			Permitted			Permitted		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	20	0	0	20	0	0	30	0	0	30	0
Lanes:	1	0	1	0	1	0	1	0	1	0	1	0

\*\*\*\*\*

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	40	376	87	95	328	195	194	46	20	15	32	77
Growth Adj:	1.28	1.28	1.28	1.72	1.72	1.72	1.00	1.00	1.00	1.30	1.30	1.30
Initial Bse:	51	481	111	163	564	335	194	46	20	20	42	100
Added Vol:	0	0	6	10	0	0	0	0	0	4	0	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	51	481	117	173	564	335	194	46	20	24	42	106
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.94	0.94	0.00	0.91	0.91	0.91	0.92	0.92	0.92
PHF Volume:	57	535	130	184	600	0	213	51	22	26	45	115
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	535	130	184	600	0	213	51	22	26	45	115
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	57	535	130	184	600	0	213	51	22	26	45	115

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Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	0.41	0.83	0.83	0.18	0.95	1.00	0.59	0.59	0.59	0.67	0.67	0.67
Lanes:	1.00	0.80	0.20	1.00	2.00	1.00	1.00	0.70	0.30	0.36	0.64	1.00
Final Sat.:	773	1261	307	338	3610	1900	1120	781	339	458	811	1269

\*\*\*\*\*

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	0.07	0.42	0.42	0.55	0.17	0.00	0.19	0.06	0.06	0.06	0.06	0.09
Green/Cycle:	0.48	0.48	0.48	0.48	0.48	0.00	0.38	0.38	0.38	0.38	0.38	0.38
Volume/Cap:	0.15	0.89	0.89	1.15	0.35	0.00	0.51	0.17	0.17	0.15	0.15	0.24
Delay/Veh:	12.8	34.4	34.4	137.5	13.8	0.0	22.5	16.9	16.9	16.8	16.8	17.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.8	34.4	34.4	137.5	13.8	0.0	22.5	16.9	16.9	16.8	16.8	17.9
DesignQueue:	1	14	3	4	15	0	6	1	1	1	1	3

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Uptown Traffic Impact Analysis
Year 2010 (No Project) - PM Peak Hour
ACCMA Analysis

Level of Service Computation Report
1997 HCM Unsignalized Method (Future Volume Alternative)
Intersection #7 San Pablo / William St
Average Delay (sec/veh): 1.5 Worst Case Level of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 1 0 0 0 0 2 0 0 0 0 0 0 0 1
Volume Module: Base Vol: 0 300 0 0 360 0 0 0 0 0 0 0 106
Growth Adj: 1.66 1.66 1.66 1.07 1.07 1.07 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 498 0 0 385 0 0 0 0 0 0 0 106
Added Vol: 0 6 0 0 4 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 504 0 0 389 0 0 0 0 0 0 0 106
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 560 0 0 432 0 0 0 0 0 0 0 118
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 560 0 0 432 0 0 0 0 0 0 0 118
Critical Gap Module: Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxxx 6.2
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxxx 3.3
Capacity Module: Cnflct Vol: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxxx 560
Potent Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxxx 532
Move Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxxx 532
Level of Service Module: Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxxx 13.7
LOS by Move: \*
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxxx xxxxx
Shared LOS: \*
ApproachDel: xxxxxxx xxxxxxx xxxxxxx xxxxxxx 13.7
ApproachLOS: \* B

Uptown Traffic Impact Analysis
Year 2010 (No Project) - PM Peak Hour
ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #8 San Pablo Ave./ 19th St.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.585
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 26.2
Optimal Cycle: 79 Level of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 30 0 0 30 0 12 0 12 0 25 0
Lanes: 1 0 1 0 0 0 0 2 0 1 0 0 1 0 1 0
Volume Module: Base Vol: 19 129 0 0 264 94 109 0 9 37 539 71
Growth Adj: 1.66 1.66 1.66 1.07 1.07 1.07 1.00 1.00 1.00 1.14 1.14 1.14
Initial Bse: 32 214 0 0 282 101 109 0 9 42 614 81
Added Vol: 0 6 0 0 1 4 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 32 220 0 0 283 105 109 0 9 42 614 81
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 35 245 0 0 315 116 121 0 10 47 683 90
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 35 245 0 0 315 116 121 0 10 47 683 90
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 35 245 0 0 315 116 121 0 10 47 683 90
Saturation Flow Module: Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.55 0.85 1.00 1.00 0.95 0.72 0.72 1.00 0.72 0.86 0.86 0.86
Lanes: 1.00 1.00 0.00 0.00 2.00 1.00 0.92 0.00 0.08 0.11 1.67 0.22
Final sat.: 1043 1615 0 0 3610 1373 1269 0 105 187 2729 359
Capacity Analysis Module: Vol/Sat: 0.03 0.15 0.00 0.00 0.09 0.08 0.10 0.00 0.10 0.25 0.25 0.25
Crit Moves: \*\*\*\*
Green/Cycle: 0.38 0.38 0.00 0.00 0.38 0.38 0.15 0.00 0.15 0.32 0.32 0.32
Volume/Cap: 0.09 0.40 0.00 0.00 0.23 0.23 0.64 0.00 0.64 0.77 0.77 0.77
Delay/Veh: 16.6 20.4 0.0 0.0 17.5 18.1 46.0 0.0 46.0 29.7 29.7 29.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 16.6 20.4 0.0 0.0 17.5 18.1 46.0 0.0 46.0 29.7 29.7 29.7
DesignQueue: 1 7 0 0 9 3 5 0 0 1 22 3

Uptown Traffic Impact Analysis
Year 2010 (No Project) - PM Peak Hour
ACCMMA Analysis

Level Of Service Computation Report
1997 HCM Unsignalized Method (Future Volume Alternative)
Intersection #9 San Pablo / 18th
Average Delay (sec/veh): 2.2 Worst Case Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 0 1 0 0 1 1 0 0 0 0 1! 0 0 0 0 1! 0 0
Volume Module:
Base Vol: 0 165 34 22 345 0 4 2 4 8 0 20
Growth Adj: 2.71 2.71 2.71 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 447 92 22 345 0 4 2 4 8 0 20
Added Vol: 0 6 0 0 1 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 453 92 22 346 0 4 2 4 8 0 20
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 504 102 24 384 0 4 2 4 9 0 22
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 504 102 24 384 0 4 2 4 9 0 22
Critical Gap Module:
Critical Gp:xxxxx xxxxx xxxxxx 4.1 xxxxx xxxxxx 7.1 6.5 6.2 7.1 xxxxx 6.2
FollowUpTim:xxxxx xxxxx xxxxxx 2.2 xxxxx xxxxxx 3.5 4.0 3.3 3.5 xxxxx 3.3
Capacity Module:
Conflict Vol: xxxxx xxxxx xxxxxx 606 xxxxx xxxxxx 934 976 65 723 xxxxx 555
Potent Cap.: xxxxx xxxxx xxxxxx 982 xxxxx xxxxxx 238 243 963 330 xxxxx 535
Move Cap.: xxxxx xxxxx xxxxxx 982 xxxxx xxxxxx 224 237 963 320 xxxxx 535
Level Of Service Module:
Stopped Del:xxxxx xxxxx xxxxxx 8.8 xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxx xxxxx xxxxx
LOS by Move: \* \* \* \* A \*
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx 328 xxxxxx xxxxx 449 xxxxxx
Shrd StpDel:xxxxx xxxxx xxxxxx 8.8 xxxxx xxxxxx xxxxxx 16.4 xxxxxx xxxxxx 13.6 xxxxxx
Shared LOS: \* \* \* \* A \* \* \* \* \* C \* \* \* \* B \* \* \* \*
ApproachDel: xxxxxx xxxxxx 16.4 13.6
ApproachLOS: \* \* C B

Uptown Traffic Impact Analysis
Year 2010 (No Project) - PM Peak Hour
ACCMMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #10 San Pablo / 17th / Clay
Cycle (sec): 70 Critical Vol./Cap. (X): 0.586
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 20.5
Optimal Cycle: 62 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 25 0 0 25 0 0 25 0
Lanes: 0 0 0 1 0 1 0 1 1 1 0 2 0 1 0 0 1 0 1
Volume Module:
Base Vol: 0 65 71 137 30 164 37 463 74 0 111 43
Growth Adj: 2.71 2.71 2.71 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 176 192 137 30 164 37 463 74 0 111 43
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Uptown+TLB: 0 0 0 12 0 5 98 25 0 0 19 3
Initial Fut: 0 176 192 149 30 169 135 488 74 0 130 46
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 196 214 166 33 188 150 542 82 0 144 51
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 196 214 166 33 188 150 542 82 0 144 51
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 196 214 166 33 188 150 542 82 0 144 51
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.83 0.83 0.73 0.87 0.87 0.95 0.95 0.85 1.00 1.00 0.85
Lanes: 0.00 0.48 0.52 1.00 0.30 1.70 1.00 2.00 1.00 0.00 1.00 1.00
Final Sat.: 0 754 823 1376 500 2817 1805 3610 1615 0 1900 1615
Capacity Analysis Module:
Vol/Sat: 0.00 0.26 0.26 0.12 0.07 0.07 0.08 0.15 0.05 0.00 0.08 0.03
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.36 0.36 0.36 0.36 0.36 0.36 0.36 0.36 0.00 0.11 0.11
Volume/Cap: 0.00 0.71 0.71 0.71 0.33 0.18 0.18 0.23 0.42 0.14 0.00 0.71 0.30
Delay/Veh: 0.0 23.3 23.3 16.4 15.2 15.2 16.0 17.2 15.4 0.0 41.5 29.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 23.3 23.3 16.4 15.2 15.2 16.0 17.2 15.4 0.0 41.5 29.8
DesignQueue: 0 5 6 4 1 5 4 4 2 0 5 2

Uptown Traffic Impact Analysis
Year 2010 (No Project) - PM Peak Hour
ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #11 Telegraph Ave./ W. Grand Ave.
Cycle (sec): 80 Critical Vol./Cap. (X): 1.034
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 25.9
Optimal Cycle: 102 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Prot+Permit Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 10 20 0 0 20 0 0 30 0 0 30 0
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 1 0
Volume Module:
Base Vol: 299 474 110 99 320 107 139 563 110 76 673 90
Growth Adj: 1.04 1.04 1.04 1.04 1.04 1.04 1.23 1.23 1.23 1.19 1.19 1.19
Initial Bse: 311 493 114 103 333 111 171 692 135 90 801 107
Added Vol: 1 1 4 0 1 0 0 0 2 6 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 312 494 118 103 334 111 171 692 137 96 801 107
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 328 520 125 108 351 117 180 729 145 102 843 113
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 328 520 125 108 351 117 180 729 145 102 843 113
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 328 520 125 108 351 117 180 729 145 102 843 113
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.54 0.85 0.85 0.23 0.85 0.85 0.19 0.86 0.86 0.22 0.86 0.86
Lanes: 1.00 1.61 0.39 1.00 1.50 0.50 1.00 1.67 0.33 1.00 1.76 0.24
Final Sat.: 1022 2615 627 429 2412 804 357 2717 539 414 2892 387
Capacity Analysis Module:
Vol/Sat: 0.32 0.20 0.20 0.25 0.15 0.50 0.27 0.27 0.25 0.29 0.29
Crit Moves: \*\*\*\*
Green/Cycle: 0.42 0.42 0.42 0.25 0.25 0.25 0.48 0.48 0.48 0.48 0.48 0.48
Volume/Cap: 0.76 0.47 0.47 1.01 0.58 0.58 1.06 0.56 0.56 0.52 0.61 0.61
Delay/Veh: 24.6 16.8 16.8 119.5 27.4 27.4 106.7 15.5 15.5 16.9 16.3 16.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 24.6 16.8 16.8 119.5 27.4 27.4 106.7 15.5 15.5 16.9 16.3 16.3
DesignQueue: 13 14 3 4 12 4 4 18 4 2 21 3

Uptown Traffic Impact Analysis
Year 2010 (No Project) - PM Peak Hour
ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #12 Telegraph Ave./ 20th St.
Cycle (sec): 45 Critical Vol./Cap. (X): 0.550
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 18.0
Optimal Cycle: 47 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 17 0 0 17 0 0 22 0 0 22 0
Lanes: 1 0 0 1 0 1 0 1 1 0 0 1 0 1 0
Volume Module:
Base Vol: 18 354 43 90 393 25 90 203 37 31 107 115
Growth Adj: 1.14 1.14 1.14 1.28 1.28 1.28 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 21 404 49 115 503 32 90 203 37 31 107 115
Added Vol: 5 0 0 0 0 0 0 1 4 0 2 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 26 404 49 115 503 41 90 204 41 31 109 115
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.93 0.93 0.93 0.91 0.91 0.91 0.90 0.90 0.90
PHF Volume: 28 448 54 124 541 44 99 224 45 34 121 128
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 28 448 54 124 541 44 99 224 45 34 121 128
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 28 448 54 124 541 44 99 224 45 34 121 128
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.39 0.84 0.84 0.24 0.87 0.87 0.69 0.69 0.69 0.73 0.73 0.73
Lanes: 1.00 0.89 0.11 1.00 1.85 0.15 0.54 1.22 0.24 0.24 0.85 0.91
Final Sat.: 747 1417 172 447 3054 249 707 1601 322 335 1179 1244
Capacity Analysis Module:
Vol/Sat: 0.04 0.32 0.32 0.28 0.18 0.18 0.14 0.14 0.14 0.10 0.10 0.10
Crit Moves: \*\*\*\*
Green/Cycle: 0.36 0.36 0.36 0.36 0.36 0.36 0.47 0.47 0.47 0.47 0.47 0.47
Volume/Cap: 0.10 0.87 0.87 0.77 0.49 0.49 0.30 0.30 0.30 0.22 0.22 0.22
Delay/Veh: 10.7 30.9 30.9 42.0 13.1 13.1 8.4 8.4 8.4 7.8 7.8 7.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 10.7 30.9 30.9 42.0 13.1 13.1 8.4 8.4 8.4 7.8 7.8 7.8
DesignQueue: 0 8 1 2 9 1 1 3 1 0 2 2

Uptown Traffic Impact Analysis  
Year 2010 (No Project) - PM Peak Hour  
ACCMA Analysis

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #13 Telegraph / William St

Cycle (sec): 45 Critical Vol./Cap. (X): 0.446  
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 6.1  
Optimal Cycle: 27 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	10	0	10	0	0	0
Lanes:	1	0	1	0	0	1	0	0	1	0	0	0

Volume Module:

Base Vol:	14	440	0	0	400	28	1	0	1	0	0	0
Growth Adj:	1.14	1.14	1.14	1.29	1.29	1.29	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	502	0	0	516	36	1	0	1	0	0	0
Added Vol:	0	5	0	0	4	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	16	507	0	0	520	36	1	0	1	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	18	563	0	0	578	40	1	0	1	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	563	0	0	578	40	1	0	1	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	18	563	0	0	578	40	1	0	1	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.77	1.00	1.00	1.00	0.89	0.89	0.65	1.00	0.65	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.94	0.06	0.50	0.00	0.50	0.00	0.00	0.00
Final Sat.:	1457	1900	0	0	1583	110	622	0	622	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.01	0.30	0.00	0.00	0.37	0.37	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.60	0.60	0.00	0.00	0.60	0.60	0.22	0.00	0.22	0.00	0.00	0.00
Volume/Cap:	0.02	0.49	0.00	0.00	0.61	0.61	0.01	0.00	0.01	0.00	0.00	0.00
Delay/Veh:	3.7	5.5	0.0	0.0	6.7	6.7	13.6	0.0	13.6	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	3.7	5.5	0.0	0.0	6.7	6.7	13.6	0.0	13.6	0.0	0.0	0.0
DesignQueue:	0	6	0	0	6	0	0	0	0	0	0	0

Uptown Traffic Impact Analysis  
Year 2010 (No Project) - PM Peak Hour  
ACCMA Analysis

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #14 Telegraph Ave./ 19th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.818  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 40.5  
Optimal Cycle: 54 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	17	0	0	17	0	0	0	0	0	22	0
Lanes:	1	0	1	0	0	1	0	0	0	0	1	0

Volume Module:

Base Vol:	57	355	0	0	377	46	0	0	0	28	552	122
Growth Adj:	1.05	1.05	1.05	1.29	1.29	1.29	1.00	1.00	1.00	1.12	1.12	1.12
Initial Bse:	60	373	0	0	486	59	0	0	0	31	618	137
Added Vol:	0	2	0	0	4	0	0	0	0	0	0	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	60	375	0	0	490	59	0	0	0	31	618	140
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.93	0.93	0.93	1.00	1.00	1.00	0.94	0.94	0.94
PHF Volume:	62	386	0	0	527	64	0	0	0	33	658	149
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	386	0	0	527	64	0	0	0	33	658	149
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	62	386	0	0	527	64	0	0	0	33	658	149

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.79	0.85	1.00	1.00	0.75	0.75	1.00	1.00	1.00	0.83	0.83	0.83
Lanes:	1.00	1.00	0.00	0.00	0.89	0.11	0.00	0.00	0.00	0.08	1.57	0.35
Final Sat.:	1495	1615	0	0	1275	154	0	0	0	126	2476	559

Capacity Analysis Module:

Vol/Sat:	0.04	0.24	0.00	0.00	0.41	0.41	0.00	0.00	0.00	0.27	0.27	0.27
Crit Moves:	****			****			****			****		
Green/Cycle:	0.36	0.36	0.00	0.00	0.36	0.36	0.00	0.00	0.00	0.47	0.47	0.47
Volume/Cap:	0.11	0.66	0.00	0.00	1.14	1.14	0.00	0.00	0.00	0.57	0.57	0.57
Delay/Veh:	10.4	18.4	0.0	0.0	100.4	100.4	0.0	0.0	0.0	10.6	10.6	10.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.4	18.4	0.0	0.0	100.4	100.4	0.0	0.0	0.0	10.6	10.6	10.6
DesignQueue:	1	7	0	0	10	1	0	0	0	0	10	2



Uptown Traffic Impact Analysis
Year 2010 (No Project) - PM Peak Hour
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #15 Telegraph / 18th St

Cycle (sec): 45 Critical Vol./Cap. (X): 0.572
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 7.5
Optimal Cycle: 32 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 7 0 7 0 0 0 0
Lanes: 1 0 1 0 0 0 0 0 1 0 0 0 0 0 0 0

Volume Module:

Base Vol: 42 350 0 0 380 34 44 0 36 0 0 0
Growth Adj: 1.18 1.18 1.18 1.36 1.36 1.36 1.14 1.14 1.14 1.14 1.14 1.14
Initial Bse: 50 413 0 0 517 46 50 0 41 0 0 0
Added Vol: 0 2 0 0 4 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 50 415 0 0 521 46 50 0 41 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 55 461 0 0 579 51 56 0 46 0 0 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 55 461 0 0 579 51 56 0 46 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 55 461 0 0 579 51 56 0 46 0 0 0

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.64 1.00 1.00 1.00 0.89 0.89 0.55 1.00 0.55 1.00 1.00 1.00
Lanes: 1.00 1.00 0.00 0.00 0.92 0.08 0.55 0.00 0.45 0.00 0.00 0.00
Final Sat.: 1210 1900 0 0 1551 138 575 0 471 0 0 0

Capacity Analysis Module:

Vol/Sat: 0.05 0.24 0.00 0.00 0.37 0.37 0.10 0.00 0.10 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.65 0.65 0.00 0.00 0.65 0.65 0.17 0.00 0.17 0.00 0.00 0.00
Volume/Cap: 0.07 0.37 0.00 0.00 0.57 0.57 0.57 0.00 0.57 0.00 0.00 0.00
Delay/Veh: 3.0 4.4 0.0 0.0 6.5 6.5 29.9 0.0 29.9 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 3.0 4.4 0.0 0.0 6.5 6.5 29.9 0.0 29.9 0.0 0.0 0.0
DesignQueue: 0 4 0 0 6 0 1 0 1 0 0 0

Uptown Traffic Impact Analysis
Year 2010 (No Project) - PM Peak Hour
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #16 Telegraph Ave./ 17th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.490
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 10.3
Optimal Cycle: 29 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 1 1 0 1 0 1 0 0 0 0 1 1 1 0 0 0 0 0 0

Volume Module:

Base Vol: 0 363 4 92 265 0 60 451 66 0 0 0
Growth Adj: 1.18 1.18 1.18 1.36 1.36 1.36 1.14 1.14 1.14 1.00 1.00 1.00
Initial Bse: 0 428 5 125 360 0 68 514 75 0 0 0
Added Vol: 0 2 0 2 2 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 430 5 127 362 0 68 514 75 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 478 5 141 403 0 76 571 84 0 0 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 478 5 141 403 0 76 571 84 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 478 5 141 403 0 76 571 84 0 0 0

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.88 0.88 0.48 0.85 1.00 0.84 0.84 0.84 1.00 1.00 1.00
Lanes: 0.00 1.98 0.02 1.00 1.00 0.00 0.31 2.35 0.34 0.00 0.00 0.00
Final Sat.: 0 3296 36 920 1615 0 495 3722 545 0 0 0

Capacity Analysis Module:

Vol/Sat: 0.00 0.15 0.15 0.15 0.25 0.00 0.15 0.15 0.15 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.51 0.51 0.51 0.51 0.00 0.31 0.31 0.31 0.00 0.00 0.00
Volume/Cap: 0.00 0.29 0.29 0.30 0.49 0.00 0.49 0.49 0.49 0.00 0.00 0.00
Delay/Veh: 0.0 6.8 6.8 8.1 9.3 0.0 13.7 13.7 13.7 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 6.8 6.8 8.1 9.3 0.0 13.7 13.7 13.7 0.0 0.0 0.0
DesignQueue: 0 6 0 2 5 0 1 10 1 0 0 0

Uptown Traffic Impact Analysis  
Year 2010 (No Project) - PM Peak Hour  
ACCMA Analysis

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #17 Broadway/ W. Grand Ave.  
\*\*\*\*\*

Cycle (sec): 85 Critical Vol./Cap. (X): 1.148  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 48.8  
Optimal Cycle: 120 Level Of Service: D

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Min. Green:	0	37	0	0	37	0	0	42	0	0	42	0
Lanes:	1	0	2	0	1	1	0	1	1	0	1	0

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	301	734	200	59	494	125	136	585	86	84	356	33
Growth Adj:	1.12	1.12	1.12	1.03	1.03	1.03	1.23	1.23	1.23	1.30	1.30	1.30
Initial Bse:	337	822	224	61	509	129	167	720	106	109	463	43
Added Vol:	0	0	0	0	0	1	1	3	0	0	5	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	337	822	224	61	509	130	168	723	106	109	468	43
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	375	913	249	68	565	144	187	803	118	121	520	48
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	375	913	249	68	565	144	187	803	118	121	520	48
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	375	913	249	68	565	144	187	803	118	121	520	48

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	0.28	0.95	0.72	0.19	0.85	0.85	0.32	0.86	0.86	0.52	0.52	0.52
Lanes:	1.00	2.00	1.00	1.00	1.59	0.41	1.00	1.74	0.26	0.35	1.51	0.14
Final Sat.:	538	3610	1373	365	2581	658	600	2857	418	351	1504	138

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	****											
Green/Cycle:	0.43	0.43	0.43	0.43	0.43	0.43	0.48	0.48	0.48	0.48	0.48	0.48
Volume/Cap:	1.64	0.59	0.43	0.44	0.52	0.52	0.65	0.58	0.58	0.72	0.72	0.72
Delay/Veh:	331.1	20.9	19.8	26.3	19.8	19.8	27.5	17.8	17.8	22.3	22.3	22.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	331.1	20.9	19.8	26.3	19.8	19.8	27.5	17.8	17.8	22.3	22.3	22.3
DesignQueue:	11	27	7	2	17	4	5	21	3	3	14	1

Uptown Traffic Impact Analysis  
Year 2010 (No Project) - PM Peak Hour  
ACCMA Analysis

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #18 Broadway/ 20th St.  
\*\*\*\*\*

Cycle (sec): 60 Critical Vol./Cap. (X): 0.477  
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 12.5  
Optimal Cycle: 56 Level Of Service: B

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Min. Green:	0	30	0	0	30	0	0	18	0	0	18	0
Lanes:	0	1	0	0	1	0	0	1	0	0	1	0

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	27	360	91	36	573	40	38	249	43	70	196	84
Growth Adj:	1.23	1.23	1.23	1.08	1.08	1.08	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	33	443	112	39	619	43	38	249	43	70	196	84
Added Vol:	0	0	0	0	0	0	0	1	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	33	443	112	39	619	43	38	250	43	70	198	84
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.96	0.96	0.96	0.94	0.94	0.94	0.92	0.92	0.92
PHF Volume:	36	476	120	41	645	45	40	266	46	76	215	91
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	476	120	41	645	45	40	266	46	76	215	91
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	36	476	120	41	645	45	40	266	46	76	215	91

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	0.67	0.67	0.67	0.34	0.76	0.76	0.67	0.67	0.67	0.61	0.61	0.61
Lanes:	0.11	1.51	0.38	1.00	1.87	0.13	0.23	1.51	0.26	0.40	1.12	0.48
Final Sat.:	144	1922	486	638	2706	189	290	1911	329	459	1299	551

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	****											
Green/Cycle:	0.52	0.52	0.52	0.52	0.52	0.52	0.35	0.35	0.35	0.35	0.35	0.35
Volume/Cap:	0.48	0.48	0.48	0.12	0.46	0.46	0.40	0.40	0.40	0.48	0.48	0.48
Delay/Veh:	10.4	10.4	10.4	8.2	10.1	10.1	16.2	16.2	16.2	17.3	17.3	17.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.4	10.4	10.4	8.2	10.1	10.1	16.2	16.2	16.2	17.3	17.3	17.3
DesignQueue:	1	8	2	1	11	1	1	6	1	2	5	2

Uptown Traffic Impact Analysis
Year 2010 (No Project) - PM Peak Hour
ACCMA Analysis

Level Of Service Computation Report

1997 HCM Operations Method (Future Volume Alternative)

Intersection #19 Broadway/ 19th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.599
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 14.3
Optimal Cycle: 60 Level Of Service: B

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Traffic Impact Analysis
Year 2010 (No Project) - PM Peak Hour
ACCMA Analysis

Level Of Service Computation Report

1997 HCM Operations Method (Future Volume Alternative)

Intersection #20 Broadway/ 17th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.577
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 13.8
Optimal Cycle: 60 Level Of Service: B

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Traffic Impact Analysis  
Year 2010 (No Project) - PM Peak Hour  
ACCMA Analysis

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #21 Broadway/ 15th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.470  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 8.9  
Optimal Cycle: 33 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Min. Green:	0	25	0	0	25	0	0	0	0	0	0	0
Lanes:	0	0	2	0	0	2	0	0	0	0	0	2

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	556	0	0	720	0	0	0	0	0	0	250
Growth Adj:	1.04	1.04	1.04	1.01	1.01	1.01	1.00	1.00	1.00	1.08	1.08	1.08
Initial Bse:	0	578	0	0	727	0	0	0	0	0	0	270
Added Vol:	0	2	0	0	2	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	580	0	0	729	0	0	0	0	0	0	270
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	645	0	0	810	0	0	0	0	0	0	300
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	645	0	0	810	0	0	0	0	0	0	300
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	645	0	0	810	0	0	0	0	0	0	300

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.77	1.00	1.00	0.77	1.00	1.00	1.00	1.00	1.00	1.00	0.61
Lanes:	0.00	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
Final Sat.:	0	2924	0	0	2924	0	0	0	0	0	0	2302

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.00	0.22	0.00	0.00	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.13
Crit Moves:	****											
Green/Cycle:	0.00	0.59	0.00	0.00	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.28
Volume/Cap:	0.00	0.37	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.47
Delay/Veh:	0.0	6.6	0.0	0.0	7.2	0.0	0.0	0.0	0.0	0.0	0.0	18.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	6.6	0.0	0.0	7.2	0.0	0.0	0.0	0.0	0.0	0.0	18.6
DesignQueue:	0	9	0	0	12	0	0	0	0	0	0	7

Uptown Traffic Impact Analysis  
Year 2010 (No Project) - PM Peak Hour  
ACCMA Analysis

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #22 Broadway/ 14th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.592  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 14.0  
Optimal Cycle: 60 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Min. Green:	0	26	0	0	26	0	0	26	0	0	26	0
Lanes:	0	0	1	0	0	1	0	0	1	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	433	29	0	921	87	0	273	152	0	397	106
Growth Adj:	1.05	1.05	1.05	1.04	1.04	1.04	1.01	1.01	1.01	1.22	1.22	1.22
Initial Bse:	0	455	30	0	958	90	0	276	154	0	484	129
Added Vol:	0	1	0	0	2	0	0	0	0	0	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	456	30	0	960	90	0	276	154	0	484	130
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	506	34	0	1066	101	0	306	171	0	538	145
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	506	34	0	1066	101	0	306	171	0	538	145
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	506	34	0	1066	101	0	306	171	0	538	145

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.76	0.76	1.00	0.75	0.75	1.00	0.73	0.73	1.00	0.74	0.74
Lanes:	0.00	1.87	0.13	0.00	2.74	0.26	0.00	1.28	0.72	0.00	1.58	0.42
Final Sat.:	0	2716	182	0	3930	370	0	1777	989	0	2230	600

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.00	0.19	0.19	0.00	0.27	0.27	0.00	0.17	0.17	0.00	0.24	0.24
Crit Moves:	****											
Green/Cycle:	0.00	0.43	0.43	0.00	0.43	0.43	0.00	0.43	0.43	0.00	0.43	0.43
Volume/Cap:	0.00	0.43	0.43	0.00	0.63	0.63	0.00	0.40	0.40	0.00	0.56	0.56
Delay/Veh:	0.0	12.9	12.9	0.0	14.8	14.8	0.0	12.6	12.6	0.0	14.5	14.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	12.9	12.9	0.0	14.8	14.8	0.0	12.6	12.6	0.0	14.5	14.5
DesignQueue:	0	10	1	0	21	2	0	6	3	0	11	3

Uptown Traffic Impact Analysis  
Year 2010 (No Project) - PM Peak Hour  
ACCMA Analysis

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #23 Frontage Rd./ W. Grand Ave.  
\*\*\*\*\*

Cycle (sec):	120	Critical Vol./Cap. (X):	1.146
Loss Time (sec):	16 (Y+R = 4 sec)	Average Delay (sec/veh):	101.7
Optimal Cycle:	120	Level Of Service:	F

\*\*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R

Control:	Split Phase	Split Phase	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0	0 0 0	7 0 0	7 0 0
Lanes:	1 0 1 1 0	0 1 0 0 1	1 0 1 1 0	1 0 1 1 0

\*\*\*\*\*

Volume Module:

Base Vol:	28 157 172	84 62 5	381 309 61	95 914 298
Growth Adj:	1.00 1.00 1.00	1.12 1.12 1.12	1.41 1.41 1.41	1.17 1.17 1.17
Initial Bse:	28 157 172	94 69 6	537 436 86	111 1069 349
Added Vol:	0 0 0	0 0 0	0 4 0	0 3 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	28 157 172	94 69 6	537 440 86	111 1072 349
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.95 0.95 0.95	0.95 0.95 0.95	0.95 0.95 0.95	0.95 0.95 0.95
PHF Volume:	29 165 181	99 73 6	565 463 91	117 1129 367
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	29 165 181	99 73 6	565 463 91	117 1129 367
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	29 165 181	99 73 6	565 463 91	117 1129 367

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Saturation Flow Module:

Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjustment:	0.90 0.83 0.83	0.93 0.93 0.81	0.90 0.88 0.88	0.90 0.87 0.87
Lanes:	1.00 1.00 1.00	0.58 0.42 1.00	1.00 1.00 1.67	1.00 1.51 0.49
Final Sat.:	1718 1584 1584	1012 747 1537	1718 2803 548	1718 2498 812

\*\*\*\*\*

Capacity Analysis Module:

Vol/Sat:	0.02 0.10 0.11	0.10 0.10 0.00	0.33 0.17 0.17	0.07 0.45 0.45
Crit Moves:	****	****	****	****
Green/Cycle:	0.10 0.10 0.10	0.09 0.09 0.09	0.29 0.48 0.48	0.20 0.39 0.39
Volume/Cap:	0.17 1.05 1.15	1.15 1.15 0.04	1.15 0.34 0.34	0.34 1.15 1.15
Delay/Veh:	50.0 116 151.3	172.9 173 50.5	130.0 19.4 19.4	41.9 112 111.5
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	50.0 116 151.3	172.9 173 50.5	130.0 19.4 19.4	41.9 112 111.5
DesignQueue:	2 10 11	6 5 0	29 17 3	6 51 17

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Uptown Traffic Impact Analysis  
Year 2010 (No Project) - PM Peak Hour  
ACCMA Analysis

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #24 Mandela Pkwy/ W. Grand Ave.  
\*\*\*\*\*

Cycle (sec):	120	Critical Vol./Cap. (X):	0.523
Loss Time (sec):	8 (Y+R = 8 sec)	Average Delay (sec/veh):	24.0
Optimal Cycle:	118	Level Of Service:	C

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R

Control:	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0 30 0	0 30 0	0 80 0	0 80 0
Lanes:	0 1 0 1 0	0 1 0 1 0	1 0 1 1 0	1 0 1 1 0

\*\*\*\*\*

Volume Module:

Base Vol:	107 144 127	35 132 105	127 332 57	220 604 25
Growth Adj:	1.09 1.09 1.09	1.41 1.41 1.41	1.64 1.64 1.64	1.30 1.30 1.30
Initial Bse:	117 157 138	49 186 148	208 544 93	286 785 33
Added Vol:	0 0 0	0 0 0	0 4 0	0 3 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	117 157 138	49 186 148	208 548 93	286 788 33
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.90 0.90 0.90	0.90 0.90 0.90	0.90 0.90 0.90	0.90 0.90 0.90
PHF Volume:	130 174 154	55 207 165	231 609 104	318 876 36
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	130 174 154	55 207 165	231 609 104	318 876 36
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	130 174 154	55 207 165	231 609 104	318 876 36

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Saturation Flow Module:

Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjustment:	0.54 0.54 0.54	0.63 0.63 0.63	0.26 0.88 0.88	0.33 0.90 0.90
Lanes:	0.57 0.76 0.67	0.26 0.97 0.77	1.00 1.71 0.29	1.00 1.92 0.08
Final Sat.:	585 787 694	310 1167 929	490 2872 489	620 3281 135

\*\*\*\*\*

Capacity Analysis Module:

Vol/Sat:	0.22 0.22 0.22	0.18 0.18 0.18	0.47 0.21 0.21	0.51 0.27 0.27
Crit Moves:	****	****	****	****
Green/Cycle:	0.27 0.27 0.27	0.27 0.27 0.27	0.67 0.67 0.67	0.67 0.67 0.67
Volume/Cap:	0.83 0.83 0.83	0.66 0.66 0.66	0.71 0.32 0.32	0.77 0.40 0.40
Delay/Veh:	55.0 55.0 55.0	44.6 44.6 44.6	24.9 8.8 8.8	26.5 9.6 9.6
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	55.0 55.0 55.0	44.6 44.6 44.6	24.9 8.8 8.8	26.5 9.6 9.6
DesignQueue:	7 9 8	3 10 8	5 14 2	7 21 1

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Uptown Traffic Impact Analysis  
Year 2010 (No Project) - PM Peak Hour  
ACCMMA Analysis

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #25 Northgate Ave./ W. Grand Ave.  
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Cycle (sec): 80 Critical Vol./Cap. (X): 0.811  
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 43.1  
Optimal Cycle: 73 Level Of Service: D

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	18	0	18	13	30	0	0	30	0
Lanes:	0	0	0	2	0	0	1	0	2	0	0	1

Volume Module:

Base Vol:	0	0	0	140	0	70	338	737	0	0	647	406
Growth Adj:	1.00	1.00	1.00	1.05	1.05	1.05	1.19	1.19	1.19	1.16	1.16	1.16
Initial Bse:	0	0	0	147	0	74	402	877	0	0	751	471
Added Vol:	0	0	0	2	0	2	1	0	0	0	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	149	0	76	403	877	0	0	751	472
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	157	0	79	424	923	0	0	790	497
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	157	0	79	424	923	0	0	790	497
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	157	0	79	424	923	0	0	790	497

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.92	1.00	0.72	0.95	0.88	1.00	1.00	0.83	0.83
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	1.23	0.77
Final Sat.:	0	0	0	3502	0	1373	1805	3339	0	0	1931	1214

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.04	0.00	0.06	0.24	0.28	0.00	0.00	0.41	0.41
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.00	0.00	0.23	0.00	0.23	0.23	0.63	0.00	0.00	0.40	0.40
Volume/Cap:	0.00	0.00	0.00	0.20	0.00	0.26	1.03	0.44	0.00	0.00	1.03	1.03
Delay/Veh:	0.0	0.0	0.0	25.7	0.0	27.5	83.4	8.5	0.0	0.0	57.8	57.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	25.7	0.0	27.5	83.4	8.5	0.0	0.0	57.8	57.8
DesignQueue:	0	0	0	5	0	3	15	16	0	0	23	15

Uptown Traffic Impact Analysis  
Year 2010 (No Project) - PM Peak Hour  
ACCMMA Analysis

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #26 Webster St./Grand Ave.  
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Cycle (sec): 80 Critical Vol./Cap. (X): 0.728  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 23.8  
Optimal Cycle: 75 Level Of Service: C

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	23	0	0	31	0	13	31	0
Lanes:	0	0	0	0	1	0	0	1	0	1	0	1

Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol:	0	0	0	80	284	76	14	577	169	95	312	22
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.28	1.28	1.28	1.29	1.29	1.29
Initial Bse:	0	0	0	80	284	76	18	739	216	123	402	28
Added Vol:	0	0	0	0	0	0	0	3	0	0	5	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	80	284	76	18	742	216	123	407	28
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	0	0	85	303	81	19	790	231	131	434	30
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	85	303	81	19	790	231	131	434	30
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	85	303	81	19	790	231	131	434	30

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.85	0.85	0.72	0.80	0.80	0.80	0.95	0.87	0.87
Lanes:	0.00	0.00	0.00	0.22	0.78	1.00	0.04	1.52	0.44	1.00	1.87	0.13
Final Sat.:	0	0	0	355	1260	1373	56	2309	674	1805	3091	215

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.24	0.24	0.06	0.34	0.34	0.34	0.07	0.14	0.14
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.00	0.00	0.30	0.30	0.30	0.43	0.43	0.43	0.16	0.60	0.60
Volume/Cap:	0.00	0.00	0.00	0.79	0.79	0.19	0.79	0.79	0.79	0.45	0.24	0.24
Delay/Veh:	0.0	0.0	0.0	37.6	37.6	21.6	24.4	24.4	24.4	35.1	7.9	7.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	37.6	37.6	21.6	24.4	24.4	24.4	35.1	7.9	7.9
DesignQueue:	0	0	0	3	10	3	1	21	6	5	8	1

Uptown Traffic Impact Analysis  
Year 2010 (No Project) - PM Peak Hour  
ACCMA Analysis

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #27 Harrison St. / Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 1.044  
Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 45.9  
Optimal Cycle: 120 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	2	0	1	1	0	2	0	1	1	0

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	8	1618	738	0	614	73	164	522	172	311	512	105
Growth Adj:	1.08	1.08	1.08	1.14	1.14	1.14	1.30	1.30	1.30	1.11	1.11	1.11
Initial Bse:	9	1747	797	0	700	83	213	679	224	345	568	117
Added Vol:	0	0	0	0	0	1	1	3	0	0	4	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	9	1747	797	0	700	84	214	682	224	345	572	117
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	9	1839	839	0	737	89	225	717	235	363	602	123
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	1839	839	0	737	89	225	717	235	363	602	123
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	9	1839	839	0	737	89	225	717	235	363	602	123

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.30	0.95	0.85	0.91	0.90	0.92	0.91	0.91	0.92	0.93	0.93	0.93
Lanes:	1.00	2.00	1.00	0.00	2.68	0.32	2.00	1.51	0.49	2.00	1.66	0.34
Final Sat.:	578	3610	1615	0	4556	548	3502	2618	859	3502	2924	596

Capacity Analysis Module:

Vol/Sat:	0.02	0.51	0.52	0.00	0.16	0.16	0.06	0.27	0.27	0.10	0.21	0.21
Crit Moves:	****											
Green/Cycle:	0.49	0.49	0.59	0.00	0.49	0.49	0.09	0.26	0.26	0.10	0.28	0.28
Volume/Cap:	0.03	1.04	0.88	0.00	0.33	0.33	0.75	1.04	1.04	1.04	0.75	0.75
Delay/Veh:	10.7	54.4	24.1	0.0	12.6	12.6	45.5	71.4	71.4	96.2	29.7	29.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.7	54.4	24.1	0.0	12.6	12.6	45.5	71.4	71.4	96.2	29.7	29.7
DesignQueue:	0	48	17	0	17	2	9	25	8	15	20	4

Uptown Traffic Impact Analysis  
Year 2010 (No Project) - PM Peak Hour  
ACCMA Analysis

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #28 El Embarcadero / Grand Ave.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.930  
Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 28.9  
Optimal Cycle: 120 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	20	0	0	0	0	0	0	30	0	10	30	0
Lanes:	1	0	0	0	0	0	0	0	2	1	0	2

Volume Module: >> Count Date: 9 Jul 2003 <<

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	232	0	223	0	0	0	0	1039	743	301	603	0
Growth Adj:	1.12	1.12	1.12	1.00	1.00	1.00	1.07	1.07	1.07	1.03	1.03	1.03
Initial Bse:	260	0	250	0	0	0	0	1112	795	310	621	0
Added Vol:	3	0	0	0	0	0	0	3	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	263	0	250	0	0	0	0	1115	795	310	623	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	273	0	260	0	0	0	0	1159	826	322	648	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	273	0	260	0	0	0	0	1159	826	322	648	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	273	0	260	0	0	0	0	1159	826	322	648	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	1.00	1.00	1.00	1.00	1.00	0.95	0.68	0.95	0.85
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	1.00	2.00
Final Sat.:	1805	0	1615	0	0	0	0	3610	1292	1805	3249	0

Capacity Analysis Module:

Vol/Sat:	0.15	0.00	0.16	0.00	0.00	0.00	0.00	0.32	0.64	0.18	0.20	0.00
Crit Moves:	****											
Green/Cycle:	0.20	0.00	0.20	0.00	0.00	0.00	0.00	0.48	0.68	0.20	0.68	0.00
Volume/Cap:	0.76	0.00	0.80	0.00	0.00	0.00	0.00	0.66	0.94	0.91	0.29	0.00
Delay/Veh:	46.6	0.0	51.7	0.0	0.0	0.0	0.0	20.6	30.7	65.7	6.5	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	46.6	0.0	51.7	0.0	0.0	0.0	0.0	20.6	30.7	65.7	6.5	0.0
DesignQueue:	13	0	12	0	0	0	0	36	16	15	12	0

Uptown Traffic Impact Analysis
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ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #29 MacArthur Blvd./ Grand Ave.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.868
Loss Time (sec): 12 (Y+R = 8 sec) Average Delay (sec/veh): 29.8
Optimal Cycle: 87 Level of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 25 0 0 20 0 15 20 0
Lanes: 0 0 0 0 0 1 1 1 0 0 0 2 0 1 1 0 3 0 0
Volume Module: >> Count Date: 9 Nov 2000 <<
Base Vol: 0 0 0 278 650 225 0 657 497 239 710 0
Growth Adj: 1.00 1.00 1.00 1.01 1.01 1.01 1.05 1.05 1.05 1.04 1.04 1.04
Initial Bse: 0 0 0 281 657 227 0 690 522 249 738 0
Added Vol: 0 0 0 0 0 0 0 0 0 3 0 2 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 281 657 227 0 690 525 249 740 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 0 0 296 691 239 0 726 552 262 779 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 296 691 239 0 726 552 262 779 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 296 691 239 0 726 552 262 779 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.86 0.86 0.86 1.00 0.95 0.85 0.95 0.91 1.00
Lanes: 0.00 0.00 0.00 0.72 1.69 0.59 0.00 2.00 1.00 1.00 3.00 0.00
Final Sat.: 0 0 0 1179 2757 954 0 3610 1615 1805 5187 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.25 0.25 0.25 0.00 0.20 0.34 0.14 0.15 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.00 0.00 0.31 0.31 0.31 0.00 0.35 0.35 0.19 0.54 0.00
Volume/Cap: 0.00 0.00 0.00 0.80 0.80 0.80 0.00 0.57 0.98 0.77 0.28 0.00
Delay/Veh: 0.0 0.0 0.0 29.8 29.8 29.8 0.0 23.1 58.4 46.6 10.3 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 29.8 29.8 29.8 0.0 23.1 58.4 46.6 10.3 0.0
DesignQueue: 0 0 0 10 22 8 0 22 17 10 17 0

Uptown Traffic Impact Analysis
Year 2010 (No Project) - PM Peak Hour
ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #30 MacArthur Blvd./ Lake Shore Ave.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.716
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 24.7
Optimal Cycle: 76 Level of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Prot+Permit
Rights: Include Include Include Include
Min. Green: 0 0 0 0 22 0 0 30 0 12 30 0
Lanes: 0 0 0 0 0 1 1 2 0 1 0 0 2 0 1 1 0 2 0 0
Volume Module: >> Count Date: 9 Jul 2003 <<
Base Vol: 0 0 0 220 1021 104 0 485 385 320 512 0
Growth Adj: 1.00 1.00 1.00 1.01 1.01 1.01 1.11 1.11 1.11 1.00 1.00 1.00
Initial Bse: 0 0 0 222 1031 105 0 538 427 320 512 0
Added Vol: 0 0 0 0 3 0 0 0 0 0 0 3 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 222 1034 105 0 538 427 320 515 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 0 0 0 241 1121 114 0 584 463 347 558 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 241 1121 114 0 584 463 347 558 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 241 1121 114 0 584 463 347 558 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.77 0.77 0.85 1.00 0.95 0.85 0.51 0.95 1.00
Lanes: 0.00 0.00 0.00 1.00 3.00 1.00 0.00 2.00 1.00 1.00 2.00 0.00
Final Sat.: 0 0 0 1470 4409 1615 0 3610 1615 976 3610 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.16 0.25 0.07 0.00 0.16 0.29 0.36 0.15 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.00 0.00 0.28 0.28 0.28 0.00 0.38 0.38 0.58 0.58 0.00
Volume/Cap: 0.00 0.00 0.00 0.60 0.92 0.26 0.00 0.43 0.77 0.62 0.27 0.00
Delay/Veh: 0.0 0.0 0.0 25.6 38.4 22.9 0.0 18.9 27.7 12.2 8.6 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 25.6 38.4 22.9 0.0 18.9 27.7 12.2 8.6 0.0
DesignQueue: 0 0 0 8 38 4 0 17 14 13 11 0



Uptown Traffic Impact Analysis
Year 2010 (No Project) - PM Peak Hour
ACCOMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #31 Lake Park Ave./ Lake Shore Ave.
Cycle (sec): 90 Critical Vol./Cap. (X): 0.767
Loss Time (sec): 16 (Y+R = 12 sec) Average Delay (sec/veh): 36.8
Optimal Cycle: 82 Level Of Service: D
Approach: North Bound South Bound East Bound West Bound
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 20 20 20 8 0 8 13 25 0 0 25 0
Lanes: 1 0 1 0 1 1 0 0 0 1 1 0 2 0 0 0 0 1 1 0

Uptown Traffic Impact Analysis
Year 2010 (No Project) - PM Peak Hour
ACCOMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #32 Brush St./ 18th St.
Cycle (sec): 70 Critical Vol./Cap. (X): 0.326
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 9.6
Optimal Cycle: 61 Level Of Service: A
Approach: North Bound South Bound East Bound West Bound
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 45 0 0 0 0 0 0 8 0
Lanes: 0 0 0 0 0 0 0 3 1 0 0 0 0 0 0 1 0 2 0 0 0

Uptown Traffic Impact Analysis
Year 2010 (No Project) - PM Peak Hour
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #33 18th St./ Castro St.
Cycle (sec): 40 Critical Vol./Cap. (X): 0.849
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 34.5
Optimal Cycle: 54 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 20 0 0 0 0 0 0 0 0 13 0
Lanes: 1 1 3 0 0 0 0 0 0 0 0 1 1
Volume Module:
Base Vol: 212 1698 0 0 0 0 0 0 0 0 115 737
Growth Adj: 1.02 1.02 1.02 1.00 1.00 1.00 1.00 1.00 1.00 1.24 1.24 1.24
Initial Bse: 216 1732 0 0 0 0 0 0 0 0 143 914
Added Vol: 0 0 0 0 0 0 0 0 0 0 3 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 216 1732 0 0 0 0 0 0 0 0 146 914
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 240 1924 0 0 0 0 0 0 0 0 162 1015
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 240 1924 0 0 0 0 0 0 0 0 162 1015
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 240 1924 0 0 0 0 0 0 0 0 162 1015
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.77 0.77 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.87 0.87
Lanes: 1.00 4.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.27 1.73
Final Sat.: 1470 5879 0 0 0 0 0 0 0 0 455 2855
Capacity Analysis Module:
Vol/Sat: 0.16 0.33 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.36 0.36
Crit Moves: \*\*\*\*
Green/Cycle: 0.49 0.49 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.32 0.32
Volume/Cap: 0.34 0.67 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 1.12 1.12
Delay/Veh: 6.6 9.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 81.6 81.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 6.6 9.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 81.6 81.6
DesignQueue: 3 24 0 0 0 0 0 0 0 0 3 17

Uptown Traffic Impact Analysis
Year 2010 (No Project) - PM Peak Hour
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #34 MLK Jr. Way/ 18th St.
Cycle (sec): 60 Critical Vol./Cap. (X): 0.431
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 13.4
Optimal Cycle: 62 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 27 0 0 0 0 0 0 0 0 27 0
Lanes: 0 1 1 0 0 0 0 1 1 0 0 0 0 0 1 0 2 1 0
Volume Module: >> Count Date: 8 Jul 2003 <<
Base Vol: 63 134 0 0 182 133 0 0 0 18 725 0
Growth Adj: 1.05 1.05 1.05 1.10 1.10 1.10 1.00 1.00 1.00 1.54 1.54 1.54
Initial Bse: 66 141 0 0 200 146 0 0 0 28 1117 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 3 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 66 141 0 0 200 146 0 0 0 28 1120 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 74 156 0 0 222 163 0 0 0 31 1244 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 74 156 0 0 222 163 0 0 0 31 1244 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 74 156 0 0 222 163 0 0 0 31 1244 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.67 0.67 1.00 1.00 0.82 0.82 1.00 1.00 1.00 1.00 0.86 0.91
Lanes: 0.64 1.36 0.00 0.00 1.16 0.84 0.00 0.00 0.00 1.00 3.00 0.00
Final Sat.: 819 1742 0 0 1808 1321 0 0 0 1900 4928 0
Capacity Analysis Module:
Vol/Sat: 0.09 0.09 0.00 0.00 0.12 0.12 0.00 0.00 0.00 0.02 0.25 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.44 0.44 0.00 0.00 0.44 0.44 0.00 0.00 0.00 0.44 0.44 0.00
Volume/Cap: 0.21 0.21 0.00 0.00 0.28 0.28 0.00 0.00 0.00 0.04 0.58 0.00
Delay/Veh: 11.3 11.3 0.0 0.0 11.8 11.8 0.0 0.0 0.0 10.1 14.4 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 11.3 11.3 0.0 0.0 11.8 11.8 0.0 0.0 0.0 10.1 14.4 0.0
DesignQueue: 1 3 0 0 4 3 0 0 0 1 26 0

Uptown Traffic Impact Analysis  
Year 2010 (No Project) - PM Peak Hour  
ACCMA Analysis

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #35 Brush St./ 17th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.362  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 10.6  
Optimal Cycle: 48 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	35	0	0	5	0	0	0	0
Lanes:	0	0	0	1	1	2	0	0	1	1	0	0

Volume Module:

Base Vol:	0	0	0	759	394	0	0	245	179	0	0	0
Growth Adj:	1.00	1.00	1.00	1.03	1.03	1.03	1.14	1.14	1.14	1.00	1.00	1.00
Initial Bse:	0	0	0	782	406	0	0	279	204	0	0	0
Added Vol:	0	0	0	0	3	0	0	1	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	782	409	0	0	280	204	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	0	869	454	0	0	311	227	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	869	454	0	0	311	227	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	869	454	0	0	311	227	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.77	0.77	1.00	1.00	0.89	0.89	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	2.00	0.00	0.00	1.16	0.84	0.00	0.00	0.00
Final Sat.:	0	0	0	2939	2939	0	0	1957	1425	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.30	0.15	0.00	0.00	0.16	0.16	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.00	0.00	0.58	0.58	0.00	0.00	0.28	0.28	0.00	0.00	0.00
Volume/Cap:	0.00	0.00	0.00	0.51	0.26	0.00	0.00	0.56	0.56	0.00	0.00	0.00
Delay/Veh:	0.0	0.0	0.0	7.6	6.2	0.0	0.0	19.1	19.1	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	7.6	6.2	0.0	0.0	19.1	19.1	0.0	0.0	0.0
DesignQueue:	0	0	0	13	7	0	0	8	6	0	0	0

Uptown Traffic Impact Analysis  
Year 2010 (No Project) - PM Peak Hour  
ACCMA Analysis

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #36 17th St / Castro St / I-980-Off-Ramp

Cycle (sec): 85 Critical Vol./Cap. (X): 0.714  
Loss Time (sec): 12 (Y+R = 6 sec) Average Delay (sec/veh): 28.5  
Optimal Cycle: 62 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	10	0	0	0	0	0	20	0	0	20	0
Lanes:	0	0	1	1	0	0	0	0	0	1	0	3

Volume Module:

Base Vol:	0	645	31	0	0	0	216	707	0	0	1371	68
Growth Adj:	1.04	1.04	1.04	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	671	32	0	0	0	216	707	0	0	1371	68
Added Vol:	0	0	4	0	0	0	0	1	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	671	36	0	0	0	216	708	0	0	1371	68
User Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	671	36	0	0	0	216	708	0	0	1371	68
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	671	36	0	0	0	216	708	0	0	1371	68
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	671	36	0	0	0	216	708	0	0	1371	68

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.94	0.94	1.00	1.00	1.00	0.95	0.91	1.00	1.00	0.90	0.90
Lanes:	0.00	1.90	0.10	0.00	0.00	0.00	1.00	3.00	0.00	0.00	2.86	0.14
Final Sat.:	0	3398	184	0	0	0	1805	5187	0	0	4907	243

Capacity Analysis Module:

Vol/Sat:	0.00	0.20	0.20	0.00	0.00	0.00	0.12	0.14	0.00	0.00	0.28	0.28
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.26	0.26	0.00	0.00	0.00	0.24	0.24	0.00	0.00	0.37	0.37
Volume/Cap:	0.00	0.76	0.76	0.00	0.00	0.00	0.51	0.58	0.00	0.00	0.76	0.76
Delay/Veh:	0.0	33.0	33.0	0.0	0.0	0.0	29.3	29.5	0.0	0.0	25.7	25.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	33.0	33.0	0.0	0.0	0.0	29.3	29.5	0.0	0.0	25.7	25.7
DesignQueue:	0	25	1	0	0	0	8	26	0	0	44	2

Uptown Traffic Impact Analysis
Year 2010 (No Project) - PM Peak Hour
ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #37 MLK Jr. Way/ 17th St
Cycle (sec): 60 Critical Vol./Cap. (X): 0.225
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 10.9
Optimal Cycle: 58 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 25 0 0 25 0 0 25 0 0 0 0 0
Lanes: 0 0 1 1 0 0 1 1 0 0 1 2 1 0 0 0 0 0 0

Uptown Traffic Impact Analysis
Year 2010 (No Project) - PM Peak Hour
ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #38 Jefferson St./ 17th St.
Cycle (sec): 60 Critical Vol./Cap. (X): 0.206
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 10.5
Optimal Cycle: 59 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 25 0 0 25 0 0 26 0 0 0 0 0
Lanes: 0 0 1 1 0 0 1 1 0 0 1 2 1 0 0 0 0 0 0

Uptown Traffic Impact Analysis
Year 2010 (No Project) - PM Peak Hour
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
\*\*\*\*\*
Intersection #39 Franklin St./ 17th St.
\*\*\*\*\*
Cycle (sec): 45 Critical Vol./Cap. (X): 0.477
Loss Time (sec): 8 (Y+R = 7 sec) Average Delay (sec/veh): 21.8
Optimal Cycle: 45 Level Of Service: C
\*\*\*\*\*
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 23 0 0 0 0 0 14 0 0 0 0 0
Lanes: 0 0 3 1 0 0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0
\*\*\*\*\*
Volume Module: >> Count Date: 8 Jul 2003 <<
Base Vol: 0 440 109 0 0 0 120 455 0 0 0 0 0
Growth Adj: 1.06 1.06 1.06 1.00 1.00 1.00 1.31 1.31 1.31 1.00 1.00 1.00
Initial Bse: 0 466 116 0 0 0 157 596 0 0 0 0 0
Added Vol: 0 1 0 0 0 0 0 2 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 467 116 0 0 0 157 598 0 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91
PHF Volume: 0 514 127 0 0 0 173 658 0 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 514 127 0 0 0 173 658 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 514 127 0 0 0 173 658 0 0 0 0 0
\*\*\*\*\*
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.85 0.85 1.00 1.00 1.00 0.75 0.75 1.00 1.00 1.00 1.00
Lanes: 0.00 3.21 0.79 0.00 0.00 0.00 0.42 1.58 0.00 0.00 0.00 0.00
Final Sat.: 0 5177 1280 0 0 0 591 2248 0 0 0 0
\*\*\*\*\*
Capacity Analysis Module:
Vol/Sat: 0.00 0.10 0.10 0.00 0.00 0.00 0.29 0.29 0.00 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.51 0.51 0.00 0.00 0.00 0.31 0.31 0.00 0.00 0.00 0.00
Volume/Cap: 0.00 0.19 0.19 0.00 0.00 0.00 0.94 0.94 0.00 0.00 0.00 0.00
Delay/Veh: 0.0 6.1 6.1 0.0 0.0 0.0 34.0 34.0 0.0 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 6.1 6.1 0.0 0.0 0.0 34.0 34.0 0.0 0.0 0.0 0.0
DesignQueue: 0 6 2 0 0 0 3 12 0 0 0 0
\*\*\*\*\*

Uptown Traffic Impact Analysis
Year 2010 (No Project) - PM Peak Hour
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
\*\*\*\*\*
Intersection #40 Webster St./ 17th St.
\*\*\*\*\*
Cycle (sec): 45 Critical Vol./Cap. (X): 0.498
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 11.6
Optimal Cycle: 47 Level Of Service: B
\*\*\*\*\*
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 22 0 0 17 0 0 0 0 0
Lanes: 0 0 0 0 0 0 1 3 0 0 0 0 1 1 0 0 0 0 0 0
\*\*\*\*\*
Volume Module: >> Count Date: 8 Jul 2003 <<
Base Vol: 0 0 0 0 94 700 0 0 354 219 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.10 1.10 1.10 1.19 1.19 1.19 1.00 1.00 1.00
Initial Bse: 0 0 0 0 103 770 0 0 421 261 0 0 0 0
Added Vol: 0 0 0 0 0 0 0 0 1 1 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 0 103 770 0 0 422 262 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 0 0 0 115 856 0 0 469 291 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 0 115 856 0 0 469 291 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 0 115 856 0 0 469 291 0 0 0 0
\*\*\*\*\*
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.74 0.74 1.00 1.00 0.83 0.83 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 0.47 3.53 0.00 0.00 1.23 0.77 0.00 0.00 0.00
Final Sat.: 0 0 0 0 670 4988 0 0 1944 1205 0 0 0 0
\*\*\*\*\*
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.17 0.17 0.00 0.00 0.24 0.24 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.00 0.00 0.47 0.47 0.00 0.00 0.36 0.36 0.00 0.00 0.00
Volume/Cap: 0.00 0.00 0.00 0.37 0.37 0.00 0.00 0.67 0.67 0.00 0.00 0.00
Delay/Veh: 0.0 0.0 0.0 8.4 8.4 0.0 0.0 15.7 15.7 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 8.4 8.4 0.0 0.0 15.7 15.7 0.0 0.0 0.0
DesignQueue: 0 0 0 2 12 0 0 8 5 0 0 0 0
\*\*\*\*\*

LEVEL OF SERVICE CALCULATION WORKSHEETS  
YEAR 2025 NO PROJECT CONDITIONS – ACCMA LAND USE

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCMMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #1 San Pablo Ave./ 31st St.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.460
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 11.0
Optimal Cycle: 82 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Control: Permitted Permitted Protected Protected
Rights: Include Include Include Include
Min. Green: 0 52 0 0 52 0 0 0 0 0 22 0 22
Lanes: 0 1 1 0 0 1 0 2 0 0 2 0 0 1
Volume Module: >> Count Date: 9 Jul 2003 <<
Base Vol: 0 800 0 43 622 0 0 0 0 184 0 21
Growth Adj: 1.28 1.28 1.28 1.72 1.72 1.72 1.00 1.00 1.00 1.42 1.42 1.42
Initial Bse: 0 1024 0 74 1070 0 0 0 0 261 0 30
Added Vol: 0 1 0 0 2 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 1025 0 74 1072 0 0 0 0 261 0 30
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume: 0 1051 0 76 1099 0 0 0 0 268 0 31
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1051 0 76 1099 0 0 0 0 268 0 31
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 1051 0 76 1099 0 0 0 0 268 0 31
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.85 1.00 0.22 0.85 1.00 1.00 1.00 1.00 0.92 1.00 0.68
Lanes: 0.00 2.00 0.00 1.00 2.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
Final Sat.: 0 3249 0 426 3249 0 0 0 0 3502 0 1292
Capacity Analysis Module:
Vol/Sat: 0.00 0.32 0.00 0.18 0.34 0.00 0.00 0.00 0.00 0.08 0.00 0.02
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.63 0.00 0.63 0.63 0.00 0.00 0.00 0.00 0.27 0.00 0.27
Volume/Cap: 0.00 0.51 0.00 0.28 0.53 0.00 0.00 0.00 0.00 0.29 0.00 0.09
Delay/Veh: 0.0 9.0 0.0 9.3 9.3 0.0 0.0 0.0 0.0 24.5 0.0 23.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 9.0 0.0 9.3 9.3 0.0 0.0 0.0 0.0 24.5 0.0 23.0
DesignQueue: 0 19 0 1 20 0 0 0 0 9 0 1

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCMMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #2 San Pablo Ave./ Market St.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.482
Loss Time (sec): 8 (Y+R = 10 sec) Average Delay (sec/veh): 12.2
Optimal Cycle: 78 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 50 0 0 50 0 0 20 0 0 0 0 20
Lanes: 0 0 1 1 0 0 0 1 1 0 0 1 0 1 0 0 0 0 1
Volume Module: >> Count Date: 9 Jul 2003 <<
Base Vol: 0 749 0 0 729 167 111 144 15 0 0 0
Growth Adj: 1.11 1.11 1.11 1.00 1.00 1.00 1.63 1.63 1.63 1.82 1.82 1.82
Initial Bse: 0 831 0 0 729 167 181 235 24 0 0 0
Added Vol: 0 2 0 0 2 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 833 0 0 731 167 181 235 24 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 881 0 0 773 177 191 248 26 0 0 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 881 0 0 773 177 191 248 26 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 881 0 0 773 177 191 248 26 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.88 0.95 1.00 0.85 0.85 0.86 0.86 0.86 1.00 1.00 1.00
Lanes: 0.00 2.00 0.00 0.00 1.63 0.37 0.82 1.07 0.11 0.00 0.00 1.00
Final Sat.: 0 3339 0 0 2642 604 1351 1753 183 0 0 1900
Capacity Analysis Module:
Vol/Sat: 0.00 0.26 0.00 0.00 0.29 0.29 0.14 0.14 0.14 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.63 0.00 0.00 0.63 0.63 0.28 0.28 0.28 0.00 0.00 0.00
Volume/Cap: 0.00 0.42 0.00 0.00 0.47 0.47 0.51 0.51 0.51 0.00 0.00 0.00
Delay/Veh: 0.0 8.3 0.0 0.0 8.7 8.7 26.6 26.6 26.6 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 8.3 0.0 0.0 8.7 8.7 26.6 26.6 26.6 0.0 0.0 0.0
DesignQueue: 0 16 0 0 14 3 6 8 1 0 0 0

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #3 San Pablo Ave. / 27th

Cycle (sec): 90 Critical Vol./Cap. (X): 1.683
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 60.9
Optimal Cycle: 120 Level Of Service: E

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

\*\*\*\*\*

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #4 San Pablo Ave./ West St/25th St

Cycle (sec): 90 Critical Vol./Cap. (X): 0.486
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 16.6
Optimal Cycle: 73 Level Of Service: B

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Includes Control, Rights, Min. Green, and Lanes.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

\*\*\*\*\*



Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
ACCMA Analysis

Level Of Service Computation Report

1997 HCM Operations Method (Future Volume Alternative)

Intersection #5 San Pablo Ave./ Grand Ave

Cycle (sec): 80 Critical Vol./Cap. (X): 0.876  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 73.7  
Optimal Cycle: 82 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 40 0 0 40 0 0 33 0 0 33 0  
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 0 1

Volume Module:  
Base Vol: 112 489 14 122 373 7 31 663 33 31 677 101  
Growth Adj: 1.43 1.43 1.43 1.24 1.24 1.24 1.71 1.71 1.71 1.76 1.76 1.76  
Initial Bse: 160 699 20 151 463 9 53 1134 56 55 1192 178  
Added Vol: 3 2 1 0 4 0 0 0 0 4 2 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 163 701 21 151 467 9 53 1134 60 57 1192 178  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95  
PHF Volume: 172 738 22 159 491 9 56 1193 64 60 1254 187  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 172 738 22 159 491 9 56 1193 64 60 1254 187  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 172 738 22 159 491 9 56 1193 64 60 1254 187

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.43 0.88 0.88 0.29 0.88 0.88 0.12 0.95 0.72 0.62 0.62 0.72  
Lanes: 1.00 1.94 0.06 1.00 1.96 0.04 1.00 2.00 1.00 0.09 1.91 1.00  
Final Sat.: 817 3229 97 547 3268 61 230 3610 1373 106 2237 1373

Capacity Analysis Module:  
Vol/Sat: 0.21 0.23 0.23 0.29 0.15 0.15 0.24 0.33 0.05 0.56 0.56 0.14  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.49 0.49 0.49 0.49 0.49 0.49 0.41 0.41 0.41 0.41 0.41 0.41  
Volume/Cap: 0.43 0.46 0.46 0.59 0.30 0.30 0.60 0.81 0.11 1.38 1.38 0.33  
Delay/Veh: 16.4 14.4 14.4 23.7 12.7 12.7 43.7 26.2 15.3 200.0 200 18.1  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 16.4 14.4 14.4 23.7 12.7 12.7 43.7 26.2 15.3 200.0 200 18.1  
DesignQueue: 4 18 1 4 12 0 1 35 2 2 37 5

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
ACCMA Analysis

Level Of Service Computation Report

1997 HCM Operations Method (Future Volume Alternative)

Intersection #6 San Pablo Ave./ 20th St.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.721  
Loss Time (sec): 12 (Y+R = 25 sec) Average Delay (sec/veh): 34.0  
Optimal Cycle: 62 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Ignore Include  
Min. Green: 0 20 0 0 20 0 0 30 0 0 30 0  
Lanes: 1 0 0 1 0 1 0 2 0 1 0 1 0 1 0

Volume Module:  
Base Vol: 40 376 87 95 328 195 194 46 20 15 32 77  
Growth Adj: 1.28 1.28 1.28 1.72 1.72 1.72 1.00 1.00 1.00 1.30 1.30 1.30  
Initial Bse: 51 481 111 163 564 335 194 46 20 20 42 100  
Added Vol: 0 0 7 10 0 0 0 0 0 4 0 6  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 51 481 118 173 564 335 194 46 20 24 42 106  
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.94 0.94 0.00 0.91 0.91 0.91 0.92 0.92 0.92  
PHF Volume: 57 535 132 184 600 0 213 51 22 26 45 115  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 57 535 132 184 600 0 213 51 22 26 45 115  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 57 535 132 184 600 0 213 51 22 26 45 115

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.41 0.82 0.82 0.18 0.95 1.00 0.59 0.59 0.59 0.67 0.67 0.67  
Lanes: 1.00 0.80 0.20 1.00 2.00 1.00 1.00 0.70 0.30 0.36 0.64 1.00  
Final Sat.: 773 1257 309 336 3610 1900 1120 781 339 458 811 1269

Capacity Analysis Module:  
Vol/Sat: 0.07 0.43 0.43 0.55 0.17 0.00 0.19 0.06 0.06 0.06 0.06 0.09  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.48 0.48 0.48 0.48 0.48 0.00 0.38 0.38 0.38 0.38 0.38 0.38  
Volume/Cap: 0.15 0.90 0.90 1.15 0.35 0.00 0.51 0.17 0.17 0.15 0.15 0.24  
Delay/Veh: 12.8 34.7 34.7 139.9 13.8 0.0 22.5 16.9 16.9 16.8 16.8 17.9  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 12.8 34.7 34.7 139.9 13.8 0.0 22.5 16.9 16.9 16.8 16.8 17.9  
DesignQueue: 1 14 3 4 15 0 6 1 1 1 1 3

Uptown Project Traffic Impact Analysis  
 Year 2025 No Project - PM Peak Hour  
 ACCMA Analysis

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Level of Service Computation Report
1997 HCM Unsignalized Method (Future Volume Alternative)
*****
Intersection #7 San Pablo / Williams
*****
Average Delay (sec/veh): 1.5 Worst Case Level Of Service: B
*****
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 1 0 0 0 0 2 0 0 0 0 0 0 0 0 1
Volume Module:
Base Vol: 0 300 0 0 0 360 0 0 0 0 0 0 0 0 106
Growth Adj: 1.66 1.66 1.66 1.07 1.07 1.07 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 498 0 0 0 385 0 0 0 0 0 0 0 0 106
Added Vol: 0 7 0 0 0 4 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 505 0 0 0 389 0 0 0 0 0 0 0 0 106
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 561 0 0 0 432 0 0 0 0 0 0 0 0 118
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 561 0 0 0 432 0 0 0 0 0 0 0 0 118
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 6.2
FollowUpTim:xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 3.3
Capacity Module:
Cnflct Vol:xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 561
Potent Cap.:xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 531
Move Cap.:xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 531
Level Of Service Module:
Stopped Del:xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 13.7
LOS by Move: * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * B
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.:xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shrd StpDel:xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared LOS: * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
ApproachDel:xxxxxx xxxxxx xxxxxx xxxxxx 13.7
ApproachLOS: * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * B
  
```

Uptown Project Traffic Impact Analysis  
 Year 2025 No Project - PM Peak Hour  
 ACCMA Analysis

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Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
*****
Intersection #8 San Pablo Ave./ 19th St.
*****
Cycle (sec): 80 Critical Vol./Cap. (X): 0.585
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 26.3
Optimal Cycle: 79 Level Of Service: C
*****
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 30 0 0 30 0 12 0 12 0 25 0
Lanes: 1 0 1 0 0 0 0 2 0 1 0 0 1 0 0 1 0 1 0
Volume Module:
Base Vol: 19 129 0 0 264 94 109 0 9 37 539 71
Growth Adj: 1.66 1.66 1.66 1.07 1.07 1.07 1.00 1.00 1.00 1.14 1.14 1.14
Initial Bse: 32 214 0 0 282 101 109 0 9 42 614 81
Added Vol: 0 6 0 0 1 3 0 0 0 0 0 0 1
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 32 220 0 0 283 104 109 0 9 42 614 82
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 35 245 0 0 315 115 121 0 10 47 683 91
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 35 245 0 0 315 115 121 0 10 47 683 91
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 35 245 0 0 315 115 121 0 10 47 683 91
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.55 0.85 1.00 1.00 0.95 0.72 0.72 1.00 0.72 0.86 0.86 0.86
Lanes: 1.00 1.00 0.00 0.00 2.00 1.00 0.92 0.00 0.08 0.11 1.67 0.22
Final Sat.: 1043 1615 0 0 3610 1373 1269 0 105 187 2723 363
Capacity Analysis Module:
Vol/Sat: 0.03 0.15 0.00 0.00 0.09 0.08 0.10 0.00 0.10 0.25 0.25 0.25
Crit Moves: **** * * * * * * * * * * * * * * * * * * * * * * * *
Green/Cycle: 0.38 0.38 0.00 0.00 0.38 0.38 0.15 0.00 0.15 0.32 0.32 0.32
Volume/Cap: 0.09 0.40 0.00 0.00 0.23 0.22 0.64 0.00 0.64 0.77 0.77 0.77
Delay/Veh: 16.6 20.4 0.0 0.0 17.5 18.1 46.0 0.0 46.0 29.8 29.8 29.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 16.6 20.4 0.0 0.0 17.5 18.1 46.0 0.0 46.0 29.8 29.8 29.8
DesignQueue: 1 7 0 0 9 3 5 0 0 1 22 3
*****
  
```

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCMA Analysis

Level of Service Computation Report
1997 HCM Unsignalized Method (Future Volume Alternative)
Intersection #9 San Pablo / 18th
Average Delay (sec/veh): 2.2 Worst Case Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 0 1 0 0 1 1 0 0 0 0 1 1 0 0
Volume Module:
Base Vol: 0 165 34 22 345 0 4 2 4 8 0 20
Growth Adj: 2.71 2.71 2.71 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 447 92 22 345 0 4 2 4 8 0 20
Added Vol: 0 6 0 0 1 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 453 92 22 346 0 4 2 4 8 0 20
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 504 102 24 384 0 4 2 4 9 0 22
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 504 102 24 384 0 4 2 4 9 0 22
Critical Gap Module:
Critical Gp:xxxx xxxx xxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 7.1 xxxx 6.2
FollowUpTim:xxxx xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 xxxx 3.3
Capacity Module:
Cnflct Vol:xxxx xxxx xxxxx 606 xxxx xxxxx 934 976 65 723 xxxx 555
Potent Cap.: xxxx xxxx xxxxx 982 xxxx xxxxx 238 243 963 330 xxxx 535
Move Cap.: xxxx xxxx xxxxx 982 xxxx xxxxx 224 237 963 320 xxxx 535
Level of Service Module:
Stopped Del:xxxx xxxx xxxxx 8.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: \* \* \* A \* \* \* \* \* \* \* \* \* \* \* \* \* \* \*
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxxx xxxxx 328 xxxxx xxxx 449 xxxxx
Shrd StpDel:xxxx xxxx xxxxx 8.8 xxxx xxxxx xxxxx 16.4 xxxxx xxxxx 13.6 xxxxx
Shared LOS: \* \* \* A \* \* \* C \* \* \* B \* \* \*
ApproachDel: xxxxxx xxxxxx 16.4 13.6
ApproachLOS: \* C B

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #10 San Pablo / 17th / Clay
Cycle (sec): 70 Critical Vol./Cap. (X): 0.586
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 20.5
Optimal Cycle: 62 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 25 0 0 25 0 0 25 0 0
Lanes: 0 0 0 1 0 1 0 0 1 1 1 0 2 0 1 0 0 1 0 1
Volume Module:
Base Vol: 0 65 71 137 30 164 37 463 74 0 111 43
Growth Adj: 2.71 2.71 2.71 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 176 192 137 30 164 37 463 74 0 111 43
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Uptown+TLB: 0 0 0 12 0 5 98 25 0 0 19 3
Initial Fut: 0 176 192 149 30 169 135 488 74 0 130 46
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 196 214 166 33 188 150 542 82 0 144 51
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 196 214 166 33 188 150 542 82 0 144 51
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 196 214 166 33 188 150 542 82 0 144 51
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjstment: 1.00 0.83 0.83 0.73 0.87 0.87 0.95 0.95 0.85 1.00 1.00 0.85
Lanes: 0.00 0.48 0.52 1.00 0.30 1.70 1.00 2.00 1.00 0.00 1.00 1.00
Final Sat.: 0 754 823 1378 500 2817 1805 3610 1615 0 1900 1615
Capacity Analysis Module:
Vol/Sat: 0.00 0.26 0.26 0.12 0.07 0.07 0.08 0.15 0.05 0.00 0.08 0.03
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.36 0.36 0.36 0.36 0.36 0.36 0.36 0.36 0.00 0.11 0.11
Volume/Cap: 0.00 0.71 0.71 0.33 0.18 0.18 0.23 0.42 0.14 0.00 0.71 0.30
Delay/Veh: 0.0 23.3 23.3 16.4 15.2 15.2 16.0 17.2 15.4 0.0 41.5 29.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 23.3 23.3 16.4 15.2 15.2 16.0 17.2 15.4 0.0 41.5 29.8
DesignQueue: 0 5 6 4 1 5 4 14 2 0 5 2

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCOMA Analysis

Level Of Service Computation Report

1997 HCM Operations Method (Future Volume Alternative)

Intersection #11 Telegraph Ave./ W. Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 1.494
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 56.6
Optimal Cycle: 120 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Prot+Permit Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 10 20 0 0 20 0 0 30 0 0 30 0
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 1 0

Volume Module:

Base Vol: 299 474 110 99 320 107 139 563 110 76 673 90
Growth Adj: 1.93 1.93 1.93 1.05 1.05 1.05 1.35 1.35 1.35 1.19 1.19 1.19
Initial Bse: 577 915 212 104 336 112 188 760 149 90 801 107
Added Vol: 1 1 4 0 0 0 0 0 2 6 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 578 916 216 104 337 112 188 760 151 96 801 107
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 608 964 228 109 355 118 198 800 158 102 843 113
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 608 964 228 109 355 118 198 800 158 102 843 113
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 608 964 228 109 355 118 198 800 158 102 843 113

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.57 0.85 0.85 0.16 0.85 0.85 0.14 0.86 0.86 0.14 0.86 0.86
Lanes: 1.00 1.62 0.38 1.00 1.50 0.50 1.00 1.67 0.33 1.00 1.76 0.24
Final Sat.: 1082 2623 619 295 2412 804 260 2718 538 260 2892 387

Capacity Analysis Module:

Vol/Sat: 0.56 0.37 0.37 0.37 0.15 0.15 0.76 0.29 0.29 0.39 0.29 0.29
Crit Moves: \*\*\*\*
Green/Cycle: 0.54 0.54 0.54 0.32 0.32 0.32 0.36 0.36 0.36 0.36 0.36 0.36
Volume/Cap: 1.05 0.69 0.69 1.15 0.46 0.46 2.09 0.81 0.81 1.07 0.80 0.80
Delay/Veh: 65.0 14.8 14.8 167.3 21.9 21.9 548.5 27.2 27.2 138.9 26.8 26.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 65.0 14.8 14.8 167.3 21.9 21.9 548.5 27.2 27.2 138.9 26.8 26.8
DesignQueue: 23 22 5 3 11 4 6 24 5 3 26 3

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCOMA Analysis

Level Of Service Computation Report

1997 HCM Operations Method (Future Volume Alternative)

Intersection #12 Telegraph Ave./ 20th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 1.156
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 263.4
Optimal Cycle: 120 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 17 0 0 17 0 0 22 0
Lanes: 1 0 0 1 0 1 0 1 1 0 0 1 0 1 0

Volume Module:

Base Vol: 18 354 43 90 393 25 90 203 37 31 107 115
Growth Adj: 2.86 2.86 2.86 1.28 1.28 1.28 1.17 1.17 1.17 1.01 1.01 1.01
Initial Bse: 51 1012 123 115 503 32 105 238 43 31 108 116
Added Vol: 5 0 0 0 0 0 9 0 1 4 0 2 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 56 1012 123 115 503 41 105 239 47 31 110 116
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.93 0.93 0.93 0.91 0.91 0.91 0.90 0.90 0.90
PHF Volume: 63 1125 137 124 541 44 116 262 52 35 122 129
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 63 1125 137 124 541 44 116 262 52 35 122 129
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 63 1125 137 124 541 44 116 262 52 35 122 129

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.39 0.84 0.84 0.24 0.87 0.87 0.68 0.68 0.68 0.72 0.72 0.72
Lanes: 1.00 0.89 0.11 1.00 1.85 0.15 0.54 1.22 0.24 0.24 0.85 0.91
Final Sat.: 747 1417 172 447 3054 249 700 1586 314 332 1168 1232

Capacity Analysis Module:

Vol/Sat: 0.08 0.79 0.79 0.28 0.18 0.18 0.17 0.17 0.17 0.10 0.10 0.10
Crit Moves: \*\*\*\*
Green/Cycle: 0.36 0.36 0.36 0.36 0.36 0.36 0.47 0.47 0.47 0.47 0.47 0.47
Volume/Cap: 0.23 2.19 2.19 0.77 0.49 0.49 0.35 0.35 0.35 0.22 0.22 0.22
Delay/Veh: 12.5 558 558.4 42.0 13.1 13.1 8.8 8.8 8.8 7.8 7.8 7.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 12.5 558 558.4 42.0 13.1 13.1 8.8 8.8 8.8 7.8 7.8 7.8
DesignQueue: 1 23 3 2 9 1 2 4 1 0 2 2

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #13 Telegraph / Williams St
Cycle (sec): 45 Critical Vol./Cap. (X): 0.885
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 77.6
Optimal Cycle: 63 Level of Service: E
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0
Lanes: 1 0 1 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0
Volume Module:
Base Vol: 14 440 0 0 400 28 1 0 1 0 0 0 0
Growth Adj: 2.81 2.81 2.81 1.29 1.29 1.29 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 39 1236 0 0 516 36 1 0 1 0 0 0 0
Added Vol: 0 5 0 0 4 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 39 1241 0 0 520 36 1 0 1 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 44 1379 0 0 578 40 1 0 1 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 44 1379 0 0 578 40 1 0 1 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 44 1379 0 0 578 40 1 0 1 0 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.67 1.00 1.00 1.00 0.89 0.89 0.77 1.00 0.77 1.00 1.00 1.00
Lanes: 1.00 1.00 0.00 0.00 0.94 0.06 0.50 0.00 0.50 0.00 0.00 0.00
Final Sat.: 1264 1900 0 0 1583 110 731 0 731 0 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.03 0.73 0.00 0.00 0.37 0.37 0.00 0.00 0.00 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.60 0.60 0.00 0.00 0.60 0.60 0.22 0.00 0.22 0.00 0.00 0.00
Volume/Cap: 0.06 1.21 0.00 0.00 0.61 0.61 0.01 0.00 0.01 0.00 0.00 0.00
Delay/Veh: 3.8 112 0.0 0.0 6.7 6.7 13.6 0.0 13.6 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 3.8 112 0.0 0.0 6.7 6.7 13.6 0.0 13.6 0.0 0.0 0.0
DesignQueue: 0 17 0 0 6 0 0 0 0 0 0 0 0

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #14 Telegraph Ave./ 19th St.
Cycle (sec): 45 Critical Vol./Cap. (X): 0.818
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 40.5
Optimal Cycle: 54 Level of Service: D
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 17 0 0 0 17 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 1 0 1 0 0 0 0 0 1 0 0 0 0 0 0 0 0 1 0 1 0
Volume Module:
Base Vol: 57 355 0 0 377 46 0 0 0 28 552 122
Growth Adj: 1.05 1.05 1.05 1.29 1.29 1.29 1.00 1.00 1.00 1.12 1.12 1.12
Initial Bse: 60 373 0 0 486 59 0 0 0 31 618 137
Added Vol: 0 2 0 0 4 0 0 0 0 0 1 2
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 60 375 0 0 490 59 0 0 0 31 619 139
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.97 0.97 0.97 0.93 0.93 0.93 1.00 1.00 1.00 0.94 0.94 0.94
PHF Volume: 62 386 0 0 527 64 0 0 0 33 659 147
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 62 386 0 0 527 64 0 0 0 33 659 147
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 62 386 0 0 527 64 0 0 0 33 659 147
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.79 0.85 1.00 1.00 0.75 0.75 1.00 1.00 1.00 0.83 0.83 0.83
Lanes: 1.00 1.00 0.00 0.00 0.89 0.11 0.00 0.00 0.00 0.08 1.57 0.35
Final Sat.: 1495 1615 0 0 1275 154 0 0 0 126 2486 556
Capacity Analysis Module:
Vol/Sat: 0.04 0.24 0.00 0.00 0.41 0.41 0.00 0.00 0.00 0.27 0.27 0.27
Crit Moves: \*\*\*\*
Green/Cycle: 0.36 0.36 0.00 0.00 0.36 0.36 0.00 0.00 0.00 0.47 0.47 0.47
Volume/Cap: 0.11 0.66 0.00 0.00 1.14 1.14 0.00 0.00 0.00 0.57 0.57 0.57
Delay/Veh: 10.4 18.4 0.0 0.0 100 100.4 0.0 0.0 0.0 10.6 10.6 10.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 10.4 18.4 0.0 0.0 100 100.4 0.0 0.0 0.0 10.6 10.6 10.6
DesignQueue: 1 7 0 0 10 1 0 0 0 0 10 2

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
ACCMA Analysis

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #15 Telegraph / 18th St  
\*\*\*\*\*

Cycle (sec): 45 Critical Vol./Cap. (X): 0.699  
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 7.8  
Optimal Cycle: 40 Level Of Service: A

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Rights:	0 0 0			0 0 0			7 0 7			0 0 0		
Min. Green:	0 0 0			0 0 0			0 0 0			0 0 0		
Lanes:	1 0 1 0 0			0 0 0 1 0			0 0 1 0 0			0 0 0 0 0		

Volume Module:

	North	South	East	West
Base Vol:	42 350 0	0 380 34	44 0 36	0 0 0
Growth Adj:	1.18 1.18 1.18	1.68 1.68 1.68	1.68 1.68 1.68	1.68 1.68 1.68
Initial Bse:	50 413 0	0 638 57	74 0 60	0 0 0
Added Vol:	0 2 0	0 4 0	0 0 0	0 0 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	50 415 0	0 642 57	74 0 60	0 0 0
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.90 0.90 0.90	0.90 0.90 0.90	0.90 0.90 0.90	0.90 0.90 0.90
PHF Volume:	55 461 0	0 714 63	82 0 67	0 0 0
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	55 461 0	0 714 63	82 0 67	0 0 0
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	55 461 0	0 714 63	82 0 67	0 0 0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	0.60	1.00	1.00	1.00	0.89	0.89	0.69	1.00	0.69	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.92	0.08	0.55	0.00	0.45	0.00	0.00	0.00
Final Sat.:	1144	1900	0	0	1551	138	719	0	588	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.05	0.24	0.00	0.00	0.46	0.11	0.00	0.11	0.00	0.00	0.00	
Crit Moves:	****			****			****			****		
Green/Cycle:	0.66	0.66	0.00	0.00	0.66	0.66	0.16	0.00	0.16	0.00	0.00	0.00
Volume/Cap:	0.07	0.37	0.00	0.00	0.70	0.70	0.70	0.00	0.70	0.00	0.00	0.00
Delay/Veh:	2.8	3.6	0.0	0.0	6.8	6.8	27.6	0.0	27.6	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	2.8	3.6	0.0	0.0	6.8	6.8	27.6	0.0	27.6	0.0	0.0	0.0
DesignQueue:	0	4	0	0	7	1	2	0	1	0	0	0

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
ACCMA Analysis

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #16 Telegraph Ave./ 17th St.  
\*\*\*\*\*

Cycle (sec): 45 Critical Vol./Cap. (X): 0.649  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 12.4  
Optimal Cycle: 37 Level Of Service: B

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Rights:	0 0 0			0 0 0			0 0 0			0 0 0		
Min. Green:	0 0 0			0 0 0			0 1 1			0 0 0		
Lanes:	0 0 1 1 0			1 0 1 0 0			0 1 1 1 0			0 0 0 0 0		

Volume Module:

	North	South	East	West
Base Vol:	0 363 4	92 265 0	60 451 66	0 0 0
Growth Adj:	1.18 1.18 1.18	1.68 1.68 1.68	1.68 1.68 1.68	1.00 1.00 1.00
Initial Bse:	0 428 5	155 445 0	101 758 111	0 0 0
Added Vol:	0 2 0	2 2 0	0 0 0	0 0 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	0 430 5	157 447 0	101 758 111	0 0 0
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.90 0.90 0.90	0.90 0.90 0.90	0.90 0.90 0.90	0.90 0.90 0.90
PHF Volume:	0 478 5	174 497 0	112 842 123	0 0 0
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	0 478 5	174 497 0	112 842 123	0 0 0
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	0 478 5	174 497 0	112 842 123	0 0 0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	1.00	0.88	0.88	0.48	0.85	1.00	0.84	0.84	0.84	1.00	1.00	1.00
Lanes:	0.00	1.98	0.02	1.00	1.00	0.00	0.31	2.35	0.34	0.00	0.00	0.00
Final Sat.:	0	3296	36	920	1615	0	495	3722	545	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.15	0.15	0.19	0.31	0.00	0.23	0.23	0.23	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.47	0.47	0.47	0.47	0.00	0.35	0.35	0.35	0.00	0.00	0.00
Volume/Cap:	0.00	0.31	0.31	0.40	0.65	0.00	0.65	0.65	0.65	0.00	0.00	0.00
Delay/Veh:	0.0	7.8	7.8	10.4	13.2	0.0	14.3	14.3	14.3	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	7.8	7.8	10.4	13.2	0.0	14.3	14.3	14.3	0.0	0.0	0.0
DesignQueue:	0	7	0	2	7	0	2	14	2	0	0	0

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCMA Analysis

Level Of Service Computation Report

1997 HCM Operations Method (Future Volume Alternative)

Intersection #17 Broadway/ W. Grand Ave.

Cycle (sec): 85 Critical Vol./Cap. (X): 1.194
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 49.3
Optimal Cycle: 120 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module table with 12 columns and 14 rows including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with 12 columns and 5 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 12 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCMA Analysis

Level Of Service Computation Report

1997 HCM Operations Method (Future Volume Alternative)

Intersection #18 Broadway/ 20th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.489
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 12.6
Optimal Cycle: 56 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module table with 12 columns and 14 rows including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with 12 columns and 5 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 12 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCM Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #19 Broadway/ 19th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.882
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 22.3
Optimal Cycle: 73 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns and 14 rows including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with 12 columns and 5 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 12 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCM Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #20 Broadway/ 17th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.666
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 15.4
Optimal Cycle: 60 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns and 14 rows including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with 12 columns and 5 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 12 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.



Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #21 Broadway/ 15th St.
Cycle (sec): 60 Critical Vol./Cap. (X): 0.501
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 10.0
Optimal Cycle: 33 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 25 0 0 25 0 0 0 0 0 0 0 0
Lanes: 0 0 2 0 0 0 0 2 0 0 0 0 0 1 0 0 0 0 0 2
Volume Module: Base Vol: 0 556 0 0 720 0 0 0 0 0 0 0 250
Growth Adj: 1.06 1.06 1.06 1.01 1.01 1.01 1.00 1.00 1.00 1.30 1.30 1.30
Initial Bse: 0 589 0 0 727 0 0 0 0 0 0 0 325
Added Vol: 0 2 0 0 2 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 591 0 0 729 0 0 0 0 0 0 0 325
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 657 0 0 810 0 0 0 0 0 0 0 361
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 657 0 0 810 0 0 0 0 0 0 0 361
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 657 0 0 810 0 0 0 0 0 0 0 361
Saturation Flow Module: Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.77 1.00 1.00 0.77 1.00 1.00 1.00 1.00 1.00 1.00 0.61
Lanes: 0.00 2.00 0.00 0.00 2.00 0.00 0.00 0.00 0.00 0.00 0.00 2.00
Final Sat.: 0 2924 0 0 2924 0 0 0 0 1900 0 0 2302
Capacity Analysis Module: Vol/Sat: 0.00 0.22 0.00 0.00 0.28 0.00 0.00 0.00 0.00 0.00 0.00 0.16
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.55 0.00 0.00 0.55 0.00 0.00 0.00 0.00 0.00 0.00 0.31
Volume/Cap: 0.00 0.41 0.00 0.00 0.50 0.00 0.00 0.00 0.00 0.00 0.00 0.50
Delay/Veh: 0.0 7.9 0.0 0.0 8.5 0.0 0.0 0.0 0.0 0.0 0.0 17.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 7.9 0.0 0.0 8.5 0.0 0.0 0.0 0.0 0.0 0.0 17.3
DesignQueue: 0 10 0 0 13 0 0 0 0 0 0 0 8

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #22 Broadway/ 14th St.
Cycle (sec): 60 Critical Vol./Cap. (X): 0.592
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 14.0
Optimal Cycle: 60 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 26 0 0 26 0 0 26 0 0 26 0
Lanes: 0 0 1 1 0 0 0 2 1 0 0 0 1 1 0 0 0 1 1 0
Volume Module: Base Vol: 0 433 29 0 921 87 0 273 152 0 397 106
Growth Adj: 1.07 1.07 1.07 1.04 1.04 1.04 1.02 1.02 1.02 1.22 1.22 1.22
Initial Bse: 0 463 31 0 958 90 0 278 155 0 484 129
Added Vol: 0 1 0 0 2 0 0 0 0 0 0 0 1
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 464 31 0 960 90 0 278 155 0 484 130
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 516 34 0 1066 101 0 309 172 0 538 145
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 516 34 0 1066 101 0 309 172 0 538 145
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 516 34 0 1066 101 0 309 172 0 538 145
Saturation Flow Module: Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.76 0.76 1.00 0.75 0.75 1.00 0.73 0.73 1.00 0.74 0.74
Lanes: 0.00 1.87 0.13 0.00 2.74 0.26 0.00 1.28 0.72 0.00 1.58 0.42
Final Sat.: 0 2716 182 0 3930 370 0 1777 989 0 2230 600
Capacity Analysis Module: Vol/Sat: 0.00 0.19 0.19 0.00 0.27 0.27 0.00 0.17 0.17 0.00 0.24 0.24
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.43 0.43 0.00 0.43 0.43 0.00 0.43 0.43 0.00 0.43 0.43
Volume/Cap: 0.00 0.44 0.44 0.00 0.63 0.63 0.00 0.40 0.40 0.00 0.56 0.56
Delay/Veh: 0.0 13.0 13.0 0.0 14.8 14.8 0.0 12.7 12.7 0.0 14.5 14.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 13.0 13.0 0.0 14.8 14.8 0.0 12.7 12.7 0.0 14.5 14.5
DesignQueue: 0 10 1 0 21 2 0 6 3 0 11 3

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #23 Frontage Rd./ W. Grand Ave.
Cycle (sec): 120 Critical Vol./Cap. (X): 1.509
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 212.3
Optimal Cycle: 120 Level of Service: F

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #24 Mandela Pkwy/ W. Grand Ave.
Cycle (sec): 120 Critical Vol./Cap. (X): 1.300
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 67.1
Optimal Cycle: 120 Level of Service: E

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #25 Northgate Ave./ W. Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.903
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 69.7
Optimal Cycle: 98 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Control, Rights, Min. Green, Lanes.

Table with 12 columns: Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.) and 4 rows.

Table with 12 columns: Sat/Lane, Adjustment, Lanes, Final Sat. and 4 rows.

Table with 12 columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue and 8 rows.

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #26 Webster St./Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.768
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 25.0
Optimal Cycle: 75 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Control, Rights, Min. Green, Lanes.

Table with 12 columns: Volume Module (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.) and 4 rows.

Table with 12 columns: Sat/Lane, Adjustment, Lanes, Final Sat. and 4 rows.

Table with 12 columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue and 8 rows.

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #27 Harrison St./ Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 1.084
Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 52.1
Optimal Cycle: 120 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 10 columns for different approaches and movements. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 10 columns. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 10 columns. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #28 El Embarcadero / Grand Ave.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.964
Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 31.9
Optimal Cycle: 120 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 10 columns for different approaches and movements. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 10 columns. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 10 columns. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #29 MacArther Blvd./ Grand Ave.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.986
Loss Time (sec): 12 (Y+R = 8 sec) Average Delay (sec/veh): 43.7
Optimal Cycle: 120 Level Of Service: D
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 25 0 0 20 0 15 20 0
Lanes: 0 0 0 0 0 1 1 1 0 0 0 2 0 1 1 0 3 0 0
Volume Module: >> Count Date: 9 Nov 2000 <<
Base Vol: 0 0 0 278 650 225 0 657 497 239 710 0
Growth Adj: 1.00 1.00 1.00 1.37 1.37 1.37 1.05 1.05 1.05 1.12 1.12 1.12
Initial Bse: 0 0 0 381 891 308 0 690 522 268 795 0
Added Vol: 0 0 0 0 0 0 0 0 0 3 0 2 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 381 891 308 0 690 525 268 797 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 0 0 401 937 324 0 726 552 282 839 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 401 937 324 0 726 552 282 839 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 401 937 324 0 726 552 282 839 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.86 0.86 0.86 1.00 0.95 0.85 0.95 0.91 1.00
Lanes: 0.00 0.00 0.00 0.72 1.69 0.59 0.00 2.00 1.00 1.00 3.00 0.00
Final Sat.: 0 0 0 1179 2757 954 0 3610 1615 1805 5187 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.34 0.34 0.34 0.00 0.20 0.34 0.16 0.16 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.00 0.00 0.33 0.33 0.33 0.00 0.33 0.33 0.19 0.52 0.00
Volume/Cap: 0.00 0.00 0.00 1.03 1.03 1.03 0.00 0.61 1.03 0.83 0.31 0.00
Delay/Veh: 0.0 0.0 0.0 57.2 57.2 57.2 0.0 24.6 73.3 52.0 11.3 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 57.2 57.2 57.2 0.0 24.6 73.3 52.0 11.3 0.0
DesignQueue: 0 0 0 13 30 10 0 23 18 11 19 0

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #30 MacArther Blvd./ Lake Shore Ave.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.762
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 28.9
Optimal Cycle: 76 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Prot+Permit
Rights: Include Ignore Include Include
Min. Green: 0 0 0 0 0 22 0 0 30 0 12 30 0
Lanes: 0 0 0 0 0 1 1 2 0 1 0 0 2 0 1 1 0 2 0 0
Volume Module: >> Count Date: 9 Jul 2003 <<
Base Vol: 0 0 0 220 1021 104 0 485 385 320 512 0
Growth Adj: 1.00 1.00 1.00 1.05 1.05 1.05 1.31 1.31 1.31 1.00 1.00 1.00
Initial Bse: 0 0 0 231 1072 109 0 635 504 320 512 0
Added Vol: 0 0 0 0 3 0 0 0 0 0 3 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 231 1075 109 0 635 504 320 515 0
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.00 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 0 0 0 250 1166 0 0 689 547 347 558 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 250 1166 0 0 689 547 347 558 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 250 1166 0 0 689 547 347 558 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.77 0.77 1.00 1.00 0.95 0.85 0.48 0.95 1.00
Lanes: 0.00 0.00 0.00 1.00 3.00 1.00 0.00 2.00 1.00 1.00 2.00 0.00
Final Sat.: 0 0 0 1470 4409 1900 0 3610 1615 903 3610 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.17 0.26 0.00 0.00 0.19 0.34 0.38 0.15 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.00 0.00 0.28 0.28 0.00 0.00 0.38 0.38 0.58 0.58 0.00
Volume/Cap: 0.00 0.00 0.00 0.62 0.96 0.00 0.00 0.51 0.90 0.67 0.27 0.00
Delay/Veh: 0.0 0.0 0.0 25.9 43.8 0.0 0.0 19.6 40.5 14.2 8.6 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 25.9 43.8 0.0 0.0 19.6 40.5 14.2 8.6 0.0
DesignQueue: 0 0 0 8 40 0 0 20 16 13 11 0

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #31 Lake Park Ave./ Lake Shore Ave.
Cycle (sec): 90 Critical Vol./Cap. (X): 0.808
Loss Time (sec): 16 (Y+R = 12 sec) Average Delay (sec/veh): 41.0
Optimal Cycle: 85 Level Of Service: D
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Permitted
Rights: Include Include Include Include
Min. Green: 20 20 20 8 0 8 13 25 0 0 25 0
Lanes: 1 0 1 0 1 1 0 0 0 1 1 0 2 0 0 0 0 1 1 0
Volume Module: >> Count Date: 17 Jul 2003 <<
Base Vol: 360 456 227 75 0 81 269 459 0 0 336 212
Growth Adj: 1.04 1.04 1.04 1.28 1.28 1.28 1.16 1.16 1.16 1.03 1.03 1.03
Initial Bse: 374 474 236 96 0 104 312 532 0 0 346 218
Added Vol: 3 2 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 377 476 236 96 0 104 312 532 0 0 346 218
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
PHF Volume: 390 492 244 99 0 107 322 550 0 0 358 226
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 390 492 244 99 0 107 322 550 0 0 358 226
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 390 492 244 99 0 107 322 550 0 0 358 226
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 1.00 0.85 0.95 1.00 0.85 0.95 0.95 1.00 1.00 0.89 0.89
Lanes: 1.00 1.00 1.00 1.00 0.00 1.00 1.00 2.00 0.00 0.00 1.23 0.77
Final Sat.: 1805 1900 1615 1805 0 1615 1805 3610 0 0 2085 1316
Capacity Analysis Module:
Vol/Sat: 0.22 0.26 0.15 0.05 0.00 0.07 0.18 0.15 0.00 0.00 0.17 0.17
Crit Moves: \*\*\*\*
Green/Cycle: 0.27 0.27 0.27 0.09 0.00 0.09 0.19 0.46 0.00 0.00 0.28 0.28
Volume/Cap: 0.80 0.96 0.56 0.62 0.00 0.75 0.96 0.33 0.00 0.00 0.62 0.62
Delay/Veh: 39.8 62.3 29.9 46.7 0.0 59.1 75.0 15.4 0.0 0.0 29.6 29.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 39.8 62.3 29.9 46.7 0.0 59.1 75.0 15.4 0.0 0.0 29.6 29.6
DesignQueue: 15 19 9 5 0 5 14 15 0 0 13 8

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #32 Brush St./ 18th St.
Cycle (sec): 70 Critical Vol./Cap. (X): 0.334
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 9.6
Optimal Cycle: 61 Level Of Service: A
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 45 0 0 0 0 0 8 0
Lanes: 0 0 0 0 0 0 3 1 0 0 0 0 0 1 0 2 0 0
Volume Module:
Base Vol: 0 0 0 0 1000 84 0 0 0 150 196 0
Growth Adj: 1.00 1.00 1.00 1.06 1.06 1.06 1.00 1.00 1.00 1.04 1.04 1.04
Initial Bse: 0 0 0 0 1060 89 0 0 0 156 204 0
Added Vol: 0 0 0 0 0 0 0 0 0 3 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 0 1060 89 0 0 0 159 204 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 0 0 0 1178 99 0 0 0 177 226 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 0 1178 99 0 0 0 177 226 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 0 1178 99 0 0 0 177 226 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 1.00 0.90 0.90 1.00 1.00 1.00 0.85 0.95 1.00
Lanes: 0.00 0.00 0.00 0.00 3.69 0.31 0.00 0.00 0.00 1.00 2.00 0.00
Final Sat.: 0 0 0 0 6304 529 0 0 0 1615 3610 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.00 0.19 0.19 0.00 0.00 0.00 0.11 0.06 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.00 0.00 0.00 0.64 0.64 0.00 0.00 0.00 0.24 0.24 0.00
Volume/Cap: 0.00 0.00 0.00 0.00 0.29 0.29 0.00 0.00 0.00 0.45 0.26 0.00
Delay/Veh: 0.0 0.0 0.0 0.0 5.5 5.5 0.0 0.0 0.0 23.4 21.6 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 0.0 5.5 5.5 0.0 0.0 0.0 23.4 21.6 0.0
DesignQueue: 0 0 0 0 17 1 0 0 0 5 7 0

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCM Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #33 18th St./ Castro St.

Cycle (sec): 40 Critical Vol./Cap. (X): 0.956
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 44.8
Optimal Cycle: 75 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 20 0 0 0 0 0 0 0 13 0
Lanes: 1 1 3 0 0 0 0 0 0 0 1 1

Volume Module:
Base Vol: 212 1698 0 0 0 0 0 0 0 115 737
Growth Adj: 1.21 1.21 1.21 1.00 1.00 1.00 1.00 1.00 1.00 1.33 1.33 1.33
Initial Bse: 257 2055 0 0 0 0 0 0 0 0 153 980
Added Vol: 0 0 0 0 0 0 0 0 0 0 3 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 257 2055 0 0 0 0 0 0 0 0 156 980
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 285 2283 0 0 0 0 0 0 0 0 173 1089
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 285 2283 0 0 0 0 0 0 0 0 173 1089
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 285 2283 0 0 0 0 0 0 0 0 173 1089

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.77 0.77 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.87 0.87
Lanes: 1.00 4.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.27 1.73
Final Sat.: 1470 5879 0 0 0 0 0 0 0 0 454 2855

Capacity Analysis Module:
Vol/Sat: 0.19 0.39 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.38 0.38
Crit Moves: \*\*\*\*
Green/Cycle: 0.49 0.49 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.32 0.32
Volume/Cap: 0.40 0.80 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 1.20 1.20
Delay/Veh: 6.9 10.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 115 114.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 6.9 10.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 115 114.5
DesignQueue: 3 29 0 0 0 0 0 0 0 0 3 19

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCM Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #34 MLK Jr. Way/ 18th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.474
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 14.2
Optimal Cycle: 62 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 27 0 0 27 0 0 0 0 0 27 0
Lanes: 0 1 1 0 0 0 0 1 1 0 0 0 0 0 0 1 0 2 1 0

Volume Module: >> Count Date: 8 Jul 2003 <<
Base Vol: 63 134 0 0 182 133 0 0 0 18 725 0
Growth Adj: 1.12 1.12 1.12 1.14 1.14 1.14 1.00 1.00 1.00 1.74 1.74 1.74
Initial Bse: 71 150 0 0 207 152 0 0 0 31 1262 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 3 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 71 150 0 0 207 152 0 0 0 31 1265 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 78 167 0 0 231 168 0 0 0 35 1405 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 78 167 0 0 231 168 0 0 0 35 1405 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 78 167 0 0 231 168 0 0 0 35 1405 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.67 0.67 1.00 1.00 0.82 0.82 1.00 1.00 1.00 1.00 0.86 0.91
Lanes: 0.64 1.36 0.00 0.00 1.16 0.84 0.00 0.00 0.00 1.00 3.00 0.00
Final Sat.: 811 1724 0 0 1808 1321 0 0 0 1900 4928 0

Capacity Analysis Module:
Vol/Sat: 0.10 0.10 0.00 0.00 0.13 0.13 0.00 0.00 0.00 0.02 0.29 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.44 0.44 0.00 0.00 0.44 0.44 0.00 0.00 0.00 0.44 0.44 0.00
Volume/Cap: 0.22 0.22 0.00 0.00 0.29 0.29 0.00 0.00 0.00 0.04 0.65 0.00
Delay/Veh: 11.4 11.4 0.0 0.0 11.9 11.9 0.0 0.0 0.0 10.2 15.4 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 11.4 11.4 0.0 0.0 11.9 11.9 0.0 0.0 0.0 10.2 15.4 0.0
DesignQueue: 2 3 0 0 5 3 0 0 0 1 29 0

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCMMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #35 Brush St./ 17th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.397
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 11.6
Optimal Cycle: 48 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 35 0 0 5 0 0 0 0 0
Lanes: 0 0 0 0 0 1 1 2 0 0 0 0 1 1 0 0 0 0 0 0

Volume Module:

Base Vol: 0 0 0 759 394 0 0 245 179 0 0 0
Growth Adj: 1.00 1.00 1.00 1.03 1.03 1.03 1.36 1.36 1.36 1.00 1.00 1.00
Initial Bse: 0 0 0 782 406 0 0 333 243 0 0 0
Added Vol: 0 0 0 0 3 0 0 1 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 782 409 0 0 334 243 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 0 0 869 454 0 0 371 270 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 869 454 0 0 371 270 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 869 454 0 0 371 270 0 0 0

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.77 0.77 1.00 1.00 0.89 0.89 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 2.00 2.00 0.00 0.00 1.16 0.84 0.00 0.00 0.00
Final Sat.: 0 0 0 2939 2939 0 0 1957 1426 0 0 0

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.30 0.15 0.00 0.00 0.19 0.19 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.00 0.00 0.58 0.58 0.00 0.00 0.28 0.28 0.00 0.00 0.00
Volume/Cap: 0.00 0.00 0.00 0.51 0.26 0.00 0.00 0.67 0.67 0.00 0.00 0.00
Delay/Veh: 0.0 0.0 0.0 7.6 6.2 0.0 0.0 20.9 20.9 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 7.6 6.2 0.0 0.0 20.9 20.9 0.0 0.0 0.0
DesignQueue: 0 0 0 13 7 0 0 9 7 0 0 0

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Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCMMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #36 17th St / Castro St/I-980 Off-Ramp

Cycle (sec): 85 Critical Vol./Cap. (X): 0.762
Loss Time (sec): 12 (Y+R = 6 sec) Average Delay (sec/veh): 30.7
Optimal Cycle: 66 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 10 0 0 0 0 0 20 0 0 20 0
Lanes: 0 0 1 1 0 0 0 0 0 0 1 0 3 0 0 0 0 2 1 0

Volume Module:

Base Vol: 0 645 31 0 0 0 216 707 0 0 1371 68
Growth Adj: 1.26 1.26 1.26 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 813 39 0 0 0 216 707 0 0 1371 68
Added Vol: 0 0 4 0 0 0 0 0 1 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 813 43 0 0 0 216 708 0 0 1371 68
User Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 813 43 0 0 0 216 708 0 0 1371 68
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 813 43 0 0 0 216 708 0 0 1371 68
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 813 43 0 0 0 216 708 0 0 1371 68

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.94 0.94 1.00 1.00 1.00 0.95 0.91 1.00 1.00 0.90 0.90
Lanes: 0.00 1.90 0.10 0.00 0.00 0.00 1.00 3.00 0.00 0.00 2.86 0.14
Final Sat.: 0 3404 180 0 0 0 1805 5187 0 0 4907 243

Capacity Analysis Module:

Vol/Sat: 0.00 0.24 0.24 0.00 0.00 0.00 0.12 0.14 0.00 0.00 0.28 0.28
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.29 0.29 0.00 0.00 0.00 0.24 0.24 0.00 0.00 0.34 0.34
Volume/Cap: 0.00 0.83 0.83 0.00 0.00 0.00 0.51 0.58 0.00 0.00 0.83 0.83
Delay/Veh: 0.0 34.2 34.2 0.0 0.0 0.0 29.3 29.5 0.0 0.0 29.5 29.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 34.2 34.2 0.0 0.0 0.0 29.3 29.5 0.0 0.0 29.5 29.5
DesignQueue: 0 29 2 0 0 0 8 26 0 0 46 2

\*\*\*\*\*



Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
ACCMA Analysis

Level of Service Computation Report

1997 HCM Operations Method (Future Volume Alternative)

Intersection #37 MLK Jr. Way/ 17th St

Cycle (sec): 60 Critical Vol./Cap. (X): 0.252  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 11.1  
Optimal Cycle: 58 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R

Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	25	0	0	25	0	0	25	0	0	0	0
Lanes:	0	0	1	1	0	0	0	1	2	1	0	0

Volume Module: >> Count Date: 8 Jul 2003 <<  
Base Vol: 0 170 29 21 191 0 10 478 45 0 0 0  
Growth Adj: 1.53 1.53 1.53 1.37 1.37 1.37 1.20 1.20 1.20 1.00 1.00 1.00  
Initial Bse: 0 260 44 29 262 0 12 574 54 0 0 0  
Added Vol: 0 0 0 0 0 0 0 0 5 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 0 260 44 29 262 0 12 579 54 0 0 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 0 289 49 32 291 0 13 643 60 0 0 0  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 289 49 32 291 0 13 643 60 0 0 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 0 289 49 32 291 0 13 643 60 0 0 0

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 0.93 0.93 0.78 0.78 1.00 0.85 0.85 0.85 1.00 1.00 1.00  
Lanes: 0.00 1.71 0.29 0.20 1.80 0.00 0.07 3.59 0.34 0.00 0.00 0.00  
Final Sat.: 0 3016 515 295 2684 0 121 5821 543 0 0 0

Capacity Analysis Module:  
Vol/Sat: 0.00 0.10 0.10 0.11 0.11 0.00 0.11 0.11 0.11 0.00 0.00 0.00  
Crit Moves: \*\*\*\*\*  
Green/Cycle: 0.00 0.43 0.43 0.43 0.43 0.00 0.44 0.44 0.44 0.00 0.00 0.00  
Volume/Cap: 0.00 0.22 0.22 0.25 0.25 0.00 0.25 0.25 0.25 0.00 0.00 0.00  
Delay/Veh: 0.0 11.2 11.2 11.4 11.4 0.0 10.9 10.9 10.9 0.0 0.0 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 11.2 11.2 11.4 11.4 0.0 10.9 10.9 10.9 0.0 0.0 0.0  
DesignQueue: 0 6 1 1 6 0 0 12 1 0 0 0

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
ACCMA Analysis

Level of Service Computation Report

1997 HCM Operations Method (Future Volume Alternative)

Intersection #38 Jefferson St./ 17th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.246  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 10.8  
Optimal Cycle: 59 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R

Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	25	0	0	25	0	0	26	0	0	0	0
Lanes:	0	0	1	1	0	0	0	1	2	1	0	0

Volume Module: >> Count Date: 8 Jul 2003 <<  
Base Vol: 0 157 52 7 57 0 24 429 44 0 0 0  
Growth Adj: 1.53 1.53 1.53 1.37 1.37 1.37 1.20 1.20 1.20 1.00 1.00 1.00  
Initial Bse: 0 240 80 10 78 0 29 515 53 0 0 0  
Added Vol: 0 0 0 0 0 0 0 0 5 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 0 240 80 10 78 0 29 520 53 0 0 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 0 267 88 11 87 0 32 578 59 0 0 0  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 267 88 11 87 0 32 578 59 0 0 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 0 267 88 11 87 0 32 578 59 0 0 0

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 0.85 0.85 0.79 0.79 1.00 0.85 0.85 0.85 1.00 1.00 1.00  
Lanes: 0.00 1.50 0.50 0.22 1.78 0.00 0.19 3.46 0.35 0.00 0.00 0.00  
Final Sat.: 0 2416 800 330 2689 0 311 5605 569 0 0 0

Capacity Analysis Module:  
Vol/Sat: 0.00 0.11 0.11 0.03 0.03 0.00 0.10 0.10 0.10 0.00 0.00 0.00  
Crit Moves: \*\*\*\*\*  
Green/Cycle: 0.00 0.43 0.43 0.43 0.43 0.00 0.43 0.43 0.43 0.00 0.00 0.00  
Volume/Cap: 0.00 0.25 0.25 0.07 0.07 0.00 0.24 0.24 0.24 0.00 0.00 0.00  
Delay/Veh: 0.0 10.9 10.9 10.0 10.0 0.0 10.8 10.8 10.8 0.0 0.0 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 10.9 10.9 10.0 10.0 0.0 10.8 10.8 10.8 0.0 0.0 0.0  
DesignQueue: 0 5 2 0 2 0 1 11 1 0 0 0

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #39 Franklin St./ 17th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.573
Loss Time (sec): 8 (Y+R = 7 sec) Average Delay (sec/veh): 40.4
Optimal Cycle: 45 Level Of Service: D

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North, South, East, West bounds.

Volume Module: >> Count Date: 8 Jul 2003 <<. Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #40 Webster St./ 17th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.529
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 12.6
Optimal Cycle: 47 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North, South, East, West bounds.

Volume Module: >> Count Date: 8 Jul 2003 <<. Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

LEVEL OF SERVICE CALCULATION WORKSHEETS  
YEAR 2025 PLUS PROJECT CONDITIONS  
– ACCMA LAND USE

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #1 San Pablo Ave./ 31st St.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.471
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 11.1
Optimal Cycle: 82 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Protected Protected
Rights: Include Include Include Include
Min. Green: 0 52 0 0 52 0 0 0 0 22 0 22
Lanes: 0 1 1 0 0 1 0 2 0 0 2 0 0 0 1
Volume Module: >> Count Date: 9 Jul 2003 <<
Base Vol: 0 800 0 43 622 0 0 0 0 184 0 21
Growth Adj: 1.28 1.28 1.28 1.72 1.72 1.72 1.00 1.00 1.00 1.42 1.42 1.42
Initial Bse: 0 1024 0 74 1070 0 0 0 0 261 0 30
Added Vol: 0 20 0 0 36 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 1044 0 74 1106 0 0 0 0 261 0 30
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume: 0 1070 0 76 1134 0 0 0 0 268 0 31
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1070 0 76 1134 0 0 0 0 268 0 31
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 1070 0 76 1134 0 0 0 0 268 0 31
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.85 1.00 0.22 0.85 1.00 1.00 1.00 1.00 0.92 1.00 0.68
Lanes: 0.00 2.00 0.00 1.00 2.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
Final Sat.: 0 3249 0 414 3249 0 0 0 0 3502 0 1292
Capacity Analysis Module:
Vol/Sat: 0.00 0.33 0.00 0.18 0.35 0.00 0.00 0.00 0.00 0.08 0.00 0.02
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.63 0.00 0.63 0.63 0.00 0.00 0.00 0.00 0.27 0.00 0.27
Volume/Cap: 0.00 0.52 0.00 0.29 0.55 0.00 0.00 0.00 0.00 0.29 0.00 0.09
Delay/Veh: 0.0 9.1 0.0 9.5 9.5 0.0 0.0 0.0 0.0 24.5 0.0 23.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 9.1 0.0 9.5 9.5 0.0 0.0 0.0 0.0 24.5 0.0 23.0
DesignQueue: 0 19 0 1 21 0 0 0 0 9 0 1

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #2 San Pablo Ave./ Market St.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.500
Loss Time (sec): 8 (Y+R = 10 sec) Average Delay (sec/veh): 12.2
Optimal Cycle: 78 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 50 0 0 50 0 0 20 0 0 0 0 20
Lanes: 0 0 1 1 0 0 0 1 1 0 0 1 0 1 0 0 0 0 0 1
Volume Module: >> Count Date: 9 Jul 2003 <<
Base Vol: 0 749 0 0 729 167 111 144 15 0 0 0
Growth Adj: 1.11 1.11 1.11 1.00 1.00 1.00 1.63 1.63 1.63 1.82 1.82 1.82
Initial Bse: 0 831 0 0 729 167 181 235 24 0 0 0
Added Vol: 0 29 0 0 54 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 860 0 0 783 167 181 235 24 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 910 0 0 828 177 191 248 26 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 910 0 0 828 177 191 248 26 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 910 0 0 828 177 191 248 26 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.88 0.95 1.00 0.86 0.86 0.86 0.86 0.86 1.00 1.00 1.00
Lanes: 0.00 2.00 0.00 0.00 1.65 0.35 0.82 1.07 0.11 0.00 0.00 1.00
Final Sat.: 0 3339 0 0 2681 572 1351 1753 183 0 0 1900
Capacity Analysis Module:
Vol/Sat: 0.00 0.27 0.00 0.00 0.31 0.31 0.14 0.14 0.14 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.63 0.00 0.00 0.63 0.63 0.28 0.28 0.28 0.00 0.00 0.00
Volume/Cap: 0.00 0.44 0.00 0.00 0.49 0.49 0.51 0.51 0.51 0.00 0.00 0.00
Delay/Veh: 0.0 8.4 0.0 0.0 9.0 9.0 26.6 26.6 26.6 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 8.4 0.0 0.0 9.0 9.0 26.6 26.6 26.6 0.0 0.0 0.0
DesignQueue: 0 16 0 0 15 3 6 8 1 0 0 0

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak  
ACCMA Analysis

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Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
*****
Intersection #3 San Pablo Ave. / 27th
*****
Cycle (sec):          90          Critical Vol./Cap. (X):      1.798
Loss Time (sec):      8 (Y+R = 8 sec) Average Delay (sec/veh):    65.5
Optimal Cycle:       120          Level Of Service:          E
*****
Approach:             North Bound      South Bound      East Bound      West Bound
Movement:             L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|-----|-----|
Control:              Permitted      Permitted      Permitted      Permitted
Rights:               Include        Include        Include        Include
Min. Green:           0 60 0 0      0 60 0 0      0 22 0 0      0 22 0 0
Lanes:                0 1 0 1 0    1 0 1 1 0    0 0 1 0 0    1 0 1 0 1
-----|-----|-----|-----|-----|
Volume Module:
Base Vol:              8 960 60      174 638 7      21 40 19      53 87 90
Growth Adj:           1.35 1.35 1.35 1.55 1.55 1.55 1.43 1.43 1.43 1.38 1.38 1.38
Initial Bse:           11 1296 81      270 989 11      30 57 27      73 120 124
Added Vol:             4 29 0 0      0 54 0 0      0 0 0 7      0 0 0 0
PasserByVol:          0 0 0 0      0 0 0 0      0 0 0 0      0 0 0 0
Initial Fut:          15 1325 81      270 1043 11      30 57 34      73 120 124
User Adj:              1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:              0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume:           16 1472 90      300 1159 12      33 64 38      81 133 138
Reduct Vol:           0 0 0 0      0 0 0 0      0 0 0 0      0 0 0 0
Reduced Vol:          16 1472 90      300 1159 12      33 64 38      81 133 138
PCE Adj:              1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:              1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:           16 1472 90      300 1159 12      33 64 38      81 133 138
-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:             1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:           0.88 0.88 0.88 0.10 0.95 0.95 0.77 0.77 0.77 0.75 1.00 0.85
Lanes:                0.02 1.87 0.11 1.00 1.98 0.02 0.25 0.47 0.28 1.00 1.00 1.00
Final Sat.:           35 3133 192      194 3569 37      363 691 413 1417 1900 1615
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:              0.47 0.47 0.47 1.55 0.32 0.32 0.09 0.09 0.09 0.06 0.07 0.09
Crit Moves:          *****
Green/Cycle:          0.67 0.67 0.67 0.67 0.67 0.67 0.24 0.24 0.24 0.24 0.24 0.24
Volume/Cap:           0.70 0.70 0.70 2.32 0.49 0.49 0.38 0.38 0.38 0.23 0.29 0.35
Delay/Veh:            11.3 11.3 11.3 632.3 8.1 8.1 31.3 31.3 31.3 28.8 29.2 30.5
User DelAdj:          1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:           11.3 11.3 11.3 632.3 8.1 8.1 31.3 31.3 31.3 28.8 29.2 30.5
DesignQueue:          0 28 2 5 21 0 1 2 1 3 5 5
*****
    
```

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak  
ACCMA Analysis

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Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
*****
Intersection #4 San Pablo Ave./ West St/25th St
*****
Cycle (sec):          90          Critical Vol./Cap. (X):      0.513
Loss Time (sec):      12 (Y+R = 9 sec) Average Delay (sec/veh):   17.0
Optimal Cycle:       73          Level Of Service:          B
*****
Approach:             North Bound      South Bound      East Bound      West Bound
Movement:             L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|-----|
Control:              Permitted      Permitted      Split Phase    Split Phase
Rights:               Include        Include        Include        Include
Min. Green:           0 32 0 0      0 32 0 0      12 0 12      17 0 17
Lanes:                0 1 0 1 0    0 1 0 1 0    0 0 1 0 0    1 0 0 0 1
-----|-----|-----|-----|-----|
Volume Module: >> Count Date: 9 Jul 2003 <<
Base Vol:              0 901 63      12 554 0      5 0 8      25 0 65
Growth Adj:           1.21 1.21 1.21 1.08 1.08 1.08 1.00 1.00 1.00 1.71 1.71 1.71
Initial Bse:           0 1090 76      13 598 0      5 0 8      43 0 111
Added Vol:             0 33 10 0      0 61 0 0      0 0 0 0      18 0 0 0
PasserByVol:          0 0 0 0      0 0 0 0      0 0 0 0      0 0 0 0
Initial Fut:          0 1123 86      13 659 0      5 0 8      61 0 111
User Adj:              1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:              0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume:           0 1187 91      14 697 0      5 0 8      64 0 117
Reduct Vol:           0 0 0 0      0 0 0 0      0 0 0 0      0 0 0 0
Reduced Vol:          0 1187 91      14 697 0      5 0 8      64 0 117
PCE Adj:              1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:              1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.:           0 1187 91      14 697 0      5 0 8      64 0 117
-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:             1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:           0.95 0.85 0.85 0.78 0.78 0.95 0.64 1.00 0.64 0.95 1.00 0.68
Lanes:                0.00 1.86 0.14 0.04 1.96 0.00 0.38 0.00 0.62 1.00 0.00 1.00
Final Sat.:           0 2984 229      57 2909 0      469 0 750 1805 0 1292
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:              0.00 0.40 0.40 0.24 0.24 0.00 0.01 0.00 0.01 0.04 0.00 0.09
Crit Moves:          *****
Green/Cycle:          0.00 0.54 0.54 0.54 0.54 0.00 0.13 0.00 0.13 0.19 0.00 0.19
Volume/Cap:           0.00 0.73 0.73 0.44 0.44 0.00 0.08 0.00 0.08 0.19 0.00 0.48
Delay/Veh:            0.0 17.1 17.1 12.5 12.5 0.0 34.4 0.0 34.4 31.0 0.0 34.1
User DelAdj:          1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:           0.0 17.1 17.1 12.5 12.5 0.0 34.4 0.0 34.4 31.0 0.0 34.1
DesignQueue:          0 30 2 0 17 0 0 0 0 3 0 5
*****
    
```

Uptown Project Traffic Impact Analysis  
 Year 2025 plus Project - PM Peak  
 ACCMA Analysis

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 Level Of Service Computation Report  
 1997 HCM Operations Method (Future Volume Alternative)  
 \*\*\*\*\*  
 Intersection #5 San Pablo Ave./ Grand Ave  
 \*\*\*\*\*  
 Cycle (sec): 80 Critical Vol./Cap. (X): 0.992  
 Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 98.1  
 Optimal Cycle: 120 Level Of Service: F  
 \*\*\*\*\*  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R  
 -----  
 Control: Permitted Permitted Permitted Permitted  
 Rights: Include Include Include Include  
 Min. Green: 0 40 0 0 40 0 0 33 0 0 33 0  
 Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 0 1  
 -----  
 Volume Module:  
 Base Vol: 112 489 14 122 373 7 31 663 33 31 677 101  
 Growth Adj: 1.43 1.43 1.43 1.24 1.24 1.24 1.71 1.71 1.71 1.76 1.76 1.76  
 Initial Bse: 160 699 20 151 463 9 53 1134 56 55 1192 178  
 Added Vol: 44 38 29 21 58 0 0 33 68 24 11 5  
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
 Initial Fut: 204 737 49 172 521 9 53 1167 124 79 1203 183  
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95  
 PHF Volume: 215 776 52 181 548 9 56 1228 131 83 1266 192  
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 Reduced Vol: 215 776 52 181 548 9 56 1228 131 83 1266 192  
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Final Vol.: 215 776 52 181 548 9 56 1228 131 83 1266 192  
 -----  
 Saturation Flow Module:  
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
 Adjustment: 0.40 0.87 0.87 0.26 0.88 0.88 0.12 0.95 0.72 0.55 0.55 0.72  
 Lanes: 1.00 1.88 0.12 1.00 1.97 0.03 1.00 2.00 1.00 0.12 1.88 1.00  
 Final Sat.: 752 3103 206 492 3278 55 230 3610 1373 128 1965 1373  
 -----  
 Capacity Analysis Module:  
 Vol/Sat: 0.29 0.25 0.25 0.37 0.17 0.17 0.24 0.34 0.10 0.64 0.64 0.14  
 Crit Moves: \*\*\*\*  
 Green/Cycle: 0.49 0.49 0.49 0.49 0.49 0.41 0.41 0.41 0.41 0.41 0.41 0.41  
 Volume/Cap: 0.58 0.51 0.51 0.75 0.34 0.34 0.60 0.84 0.23 1.58 1.58 0.34  
 Delay/Veh: 21.0 15.0 15.0 35.1 13.0 13.0 43.7 27.3 16.7 291.0 291 18.2  
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 AdjDel/Veh: 21.0 15.0 15.0 35.1 13.0 13.0 43.7 27.3 16.7 291.0 291 18.2  
 DesignQueue: 5 19 1 4 13 0 1 36 4 2 37 5  
 \*\*\*\*\*

Uptown Project Traffic Impact Analysis  
 Year 2025 plus Project - PM Peak  
 ACCMA Analysis

-----  
 Level Of Service Computation Report  
 1997 HCM Operations Method (Future Volume Alternative)  
 \*\*\*\*\*  
 Intersection #6 San Pablo Ave./ 20th St.  
 \*\*\*\*\*  
 Cycle (sec): 80 Critical Vol./Cap. (X): 1.573  
 Loss Time (sec): 12 (Y+R = 25 sec) Average Delay (sec/veh): 121.9  
 Optimal Cycle: 120 Level Of Service: F  
 \*\*\*\*\*  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R  
 -----  
 Control: Permitted Permitted Permitted Permitted  
 Rights: Include Ignore Include Include  
 Min. Green: 0 20 0 0 20 0 0 30 0 0 30 0  
 Lanes: 1 0 0 1 0 1 0 2 0 1 0 1 0 1 0 1 0  
 -----  
 Volume Module:  
 Base Vol: 40 376 87 95 328 195 194 46 20 15 32 77  
 Growth Adj: 1.28 1.28 1.28 1.72 1.72 1.72 1.00 1.00 1.00 1.30 1.30 1.30  
 Initial Bse: 51 481 111 163 564 335 194 46 20 20 42 100  
 Added Vol: 0 65 58 72 40 0 0 0 0 30 0 46  
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
 Initial Fut: 51 546 169 235 604 335 194 46 20 50 42 146  
 User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Adj: 0.90 0.90 0.90 0.94 0.94 0.00 0.91 0.91 0.91 0.92 0.92 0.92  
 PHF Volume: 57 607 188 250 643 0 213 51 22 54 45 159  
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 Reduced Vol: 57 607 188 250 643 0 213 51 22 54 45 159  
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00  
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Final Vol.: 57 607 188 250 643 0 213 51 22 54 45 159  
 -----  
 Saturation Flow Module:  
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
 Adjustment: 0.38 0.82 0.82 0.11 0.95 1.00 0.57 0.57 0.57 0.63 0.63 0.63  
 Lanes: 1.00 0.76 0.24 1.00 2.00 1.00 1.00 0.70 0.30 0.54 0.46 1.00  
 Final Sat.: 724 1188 368 200 3610 1900 1074 748 325 655 550 1205  
 -----  
 Capacity Analysis Module:  
 Vol/Sat: 0.08 0.51 0.51 1.26 0.18 0.00 0.20 0.07 0.07 0.08 0.08 0.13  
 Crit Moves: \*\*\*\*  
 Green/Cycle: 0.48 0.48 0.48 0.48 0.48 0.00 0.38 0.38 0.38 0.38 0.38 0.38  
 Volume/Cap: 0.17 1.08 1.08 2.64 0.37 0.00 0.53 0.18 0.18 0.22 0.22 0.35  
 Delay/Veh: 13.0 76.2 76.2 789.6 14.0 0.0 23.2 17.0 17.0 17.5 17.5 19.3  
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 AdjDel/Veh: 13.0 76.2 76.2 789.6 14.0 0.0 23.2 17.0 17.0 17.5 17.5 19.3  
 DesignQueue: 1 16 5 6 16 0 6 1 1 2 1 5  
 \*\*\*\*\*

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Unsignalized Method (Future Volume Alternative)
Intersection #7 San Pablo / Williams
Average Delay (sec/veh): 1.5 Worst Case Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 0 1 0 0 0 2 0 0 0 0 0 0 0 0 0 0 0 1
Volume Module:
Base Vol: 0 300 0 0 360 0 0 0 0 0 0 0 106
Growth Adj: 1.66 1.66 1.66 1.07 1.07 1.07 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 498 0 0 385 0 0 0 0 0 0 0 106
Added Vol: 0 74 44 0 70 0 0 0 0 0 0 0 50
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 572 44 0 455 0 0 0 0 0 0 0 156
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 636 49 0 506 0 0 0 0 0 0 0 173
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 636 49 0 506 0 0 0 0 0 0 0 173
Critical Gap Module:
Critical Gp: 6.2
FollowUpTim: 3.3
Capacity Module:
Conflict Vol: 660
Potent Cap.: 467
Move Cap.: 467
Level Of Service Module:
Stopped Del: 17.2
LOS by Move: C
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.:
Shrd StpDel:
Shared LOS:
ApproachDel: 17.2
ApproachLOS: C

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #8 San Pablo Ave./ 19th St.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.689
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 28.2
Optimal Cycle: 79 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 30 0 0 30 0 12 0 12 0 25 0
Lanes: 1 0 1 0 0 0 0 2 0 1 0 0 1 0 0 1 0 1 0
Volume Module:
Base Vol: 19 129 0 0 264 94 109 0 9 37 539 71
Growth Adj: 1.66 1.66 1.66 1.07 1.07 1.07 1.00 1.00 1.00 1.14 1.14 1.14
Initial Bse: 32 214 0 0 282 101 109 0 9 42 614 81
Added Vol: 1 98 0 0 46 24 0 0 0 9 42 20
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 33 312 0 0 328 125 109 0 9 51 656 101
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 36 347 0 0 365 138 121 0 10 57 729 112
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 36 347 0 0 365 138 121 0 10 57 729 112
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 36 347 0 0 365 138 121 0 10 57 729 112
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.51 0.85 1.00 1.00 0.95 0.72 0.72 1.00 0.72 0.86 0.86 0.86
Lanes: 1.00 1.00 0.00 0.00 2.00 1.00 0.92 0.00 0.08 0.13 1.62 0.25
Final Sat.: 973 1615 0 0 3610 1373 1269 0 105 207 2652 408
Capacity Analysis Module:
Vol/Sat: 0.04 0.21 0.00 0.00 0.10 0.10 0.10 0.00 0.10 0.28 0.28 0.28
Crit Moves:
Green/Cycle: 0.38 0.38 0.00 0.00 0.38 0.38 0.15 0.00 0.15 0.32 0.32 0.32
Volume/Cap: 0.10 0.57 0.00 0.00 0.27 0.27 0.64 0.00 0.64 0.85 0.85 0.85
Delay/Veh: 16.8 23.8 0.0 0.0 17.9 18.7 46.0 0.0 46.0 33.5 33.5 33.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 16.8 23.8 0.0 0.0 17.9 18.7 46.0 0.0 46.0 33.5 33.5 33.5
DesignQueue: 1 10 0 0 10 4 5 0 0 2 23 4

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak
ACCMA Analysis

Level of Service Computation Report
1997 HCM Unsignalized Method (Future Volume Alternative)
Intersection #9 San Pablo / 18th.
Average Delay (sec/veh): 2.3 Worst Case Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 0 1 0 0 1 1 0 0 0 0 1 1 0 0
Volume Module:
Base Vol: 0 165 34 22 345 0 4 2 4 8 0 20
Growth Adj: 2.71 2.71 2.71 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 447 92 22 345 0 4 2 4 8 0 20
Added Vol: 0 95 21 40 15 0 0 0 0 2 0 4
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 542 113 62 360 0 4 2 4 10 0 24
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 602 126 69 400 0 4 2 4 11 0 27
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 602 126 69 400 0 4 2 4 11 0 27
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 7.1 xxxx 6.2
FollowUpTim:xxxxx xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 xxxx 3.3
Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx 728 xxxx xxxxx 1156 1208 42 932 xxxx 665
Potent Cap.: xxxx xxxx xxxxx 885 xxxx xxxxx 166 175 982 236 xxxx 463
Move Cap.: xxxx xxxx xxxxx 885 xxxx xxxxx 147 161 982 218 xxxx 463
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx 9.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: \* \* \* A \* \* \* \* \* \* \* \* \* \* \* \* \* \* \*
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 229 xxxxx xxxx 348 xxxxx
Shrd StpDel:xxxxx xxxx xxxxx 9.4 xxxx xxxxx xxxxx 21.5 xxxxx xxxxx 16.6 xxxxx
Shared LOS: \* \* \* A \* \* \* C \* \* \* C \*
ApproachDel: xxxxxx xxxxxx 21.5 16.6
ApproachLOS: \* \* C C

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak
ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #10 San Pablo / 17th / Clay
Cycle (sec): 70 Critical Vol./Cap. (X): 0.586
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 20.5
Optimal Cycle: 62 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 25 0 0 25 0 0 25 0 0 0 0
Lanes: 0 0 0 1 0 1 0 0 1 1 1 0 2 0 1 0 0 1 0 1
Volume Module:
Base Vol: 0 65 71 137 30 164 37 463 74 0 111 43
Growth Adj: 2.71 2.71 2.71 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 176 192 137 30 164 37 463 74 0 111 43
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Uptown+TLB: 0 0 0 12 0 5 98 25 0 0 19 3
Initial Fut: 0 176 192 149 30 169 135 488 74 0 130 46
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 196 214 166 33 188 150 542 82 0 144 51
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 196 214 166 33 188 150 542 82 0 144 51
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 196 214 166 33 188 150 542 82 0 144 51
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.83 0.83 0.73 0.87 0.87 0.95 0.95 0.85 1.00 1.00 0.85
Lanes: 0.00 0.48 0.52 1.00 0.30 1.70 1.00 2.00 1.00 0.00 1.00 1.00
Final Sat.: 0 754 823 1378 500 2817 1805 3610 1615 0 1900 1615
Capacity Analysis Module:
Vol/Sat: 0.00 0.26 0.26 0.12 0.07 0.07 0.08 0.15 0.05 0.00 0.08 0.03
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.36 0.36 0.36 0.36 0.36 0.36 0.36 0.36 0.00 0.11 0.11
Volume/Cap: 0.00 0.71 0.71 0.33 0.18 0.18 0.23 0.42 0.14 0.00 0.71 0.30
Delay/Veh: 0.0 23.3 23.3 16.4 15.2 15.2 16.0 17.2 15.4 0.0 41.5 29.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 23.3 23.3 16.4 15.2 15.2 16.0 17.2 15.4 0.0 41.5 29.8
DesignQueue: 0 5 6 4 1 5 4 14 2 0 5 2



Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak
ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #11 Telegraph Ave. / W. Grand Ave.
Cycle (sec): 80 Critical Vol./Cap. (X): 1.847
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 76.2
Optimal Cycle: 120 Level Of Service: E
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Prot+Permit Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 10 20 0 0 20 0 0 30 0 0 30 0
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 1 0
Volume Module:
Base Vol: 299 474 110 99 320 107 139 563 110 76 673 90
Growth Adj: 1.93 1.93 1.93 1.05 1.05 1.05 1.35 1.35 1.35 1.19 1.19 1.19
Initial Bse: 577 915 212 104 336 112 188 760 149 90 801 107
Added Vol: 32 11 68 0 22 0 1 5 102 126 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 609 926 280 104 358 112 189 765 251 216 801 107
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 641 975 295 109 377 118 199 805 264 228 843 113
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 641 975 295 109 377 118 199 805 264 228 843 113
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 641 975 295 109 377 118 199 805 264 228 843 113
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.55 0.85 0.85 0.18 0.85 0.85 0.18 0.85 0.85 0.14 0.86 0.86
Lanes: 1.00 1.54 0.46 1.00 1.52 0.48 1.00 1.51 0.49 1.00 1.76 0.24
Final Sat.: 1037 2474 749 342 2450 769 340 2422 793 257 2892 387
Capacity Analysis Module:
Vol/Sat: 0.62 0.39 0.39 0.32 0.15 0.15 0.58 0.33 0.33 0.89 0.29 0.29
Crit Moves: \*\*\*\*
Green/Cycle: 0.47 0.47 0.47 0.28 0.28 0.28 0.43 0.43 0.43 0.43 0.43 0.43
Volume/Cap: 1.30 0.83 0.83 1.15 0.55 0.55 1.37 0.78 0.78 2.08 0.68 0.68
Delay/Veh: 167.8 22.3 22.3 167.2 25.4 25.4 227.1 22.7 22.7 540.8 20.0 20.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 167.8 22.3 22.3 167.2 25.4 25.4 227.1 22.7 22.7 540.8 20.0 20.0
DesignQueue: 25 25 8 4 13 4 5 22 7 6 23 3

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak
ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #12 Telegraph Ave. / 20th St.
Cycle (sec): 45 Critical Vol./Cap. (X): 1.239
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 252.0
Optimal Cycle: 120 Level Of Service: F
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 17 0 0 17 0 0 22 0 0 22 0
Lanes: 1 0 0 1 0 1 0 1 1 0 0 1 0 1 0
Volume Module:
Base Vol: 18 354 43 90 393 25 90 203 37 31 107 115
Growth Adj: 2.86 2.86 2.86 1.28 1.28 1.28 1.17 1.17 1.17 1.01 1.01 1.01
Initial Bse: 51 1012 123 115 503 32 105 238 43 31 108 116
Added Vol: 42 35 8 1 160 86 27 16 29 17 30 1
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 93 1047 131 116 663 118 132 254 72 48 138 117
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.93 0.93 0.93 0.91 0.91 0.91 0.90 0.90 0.90
PHF Volume: 104 1164 146 125 713 127 145 279 79 54 153 130
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 104 1164 146 125 713 127 145 279 79 54 153 130
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 104 1164 146 125 713 127 145 279 79 54 153 130
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.24 0.84 0.84 0.24 0.86 0.86 0.65 0.65 0.65 0.69 0.69 0.69
Lanes: 1.00 0.89 0.11 1.00 1.70 0.30 0.58 1.11 0.31 0.32 0.91 0.77
Final Sat.: 458 1411 176 447 2770 493 714 1369 390 419 1196 1015
Capacity Analysis Module:
Vol/Sat: 0.23 0.82 0.82 0.28 0.26 0.26 0.20 0.20 0.20 0.13 0.13 0.13
Crit Moves: \*\*\*\*
Green/Cycle: 0.36 0.36 0.36 0.36 0.36 0.36 0.47 0.47 0.47 0.47 0.47 0.47
Volume/Cap: 0.63 2.28 2.28 0.77 0.71 0.71 0.43 0.43 0.43 0.27 0.27 0.27
Delay/Veh: 29.0 597 596.6 42.8 16.6 16.6 9.5 9.5 9.5 8.2 8.2 8.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 29.0 597 596.6 42.8 16.6 16.6 9.5 9.5 9.5 8.2 8.2 8.2
DesignQueue: 2 24 3 2 13 2 2 4 1 1 2 2

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #13 Telegraph / Williams St

Cycle (sec): 45 Critical Vol./Cap. (X): 0.991
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 86.8
Optimal Cycle: 93 Level Of Service: F

Table with columns for Approach, Movement, Control, Rights, Min. Green, Lanes for North, South, East, and West bounds.

Table with columns for Volume Module: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Table with columns for Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns for Capacity Analysis Module: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

\*\*\*\*\*

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #14 Telegraph Ave./ 19th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.963
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 78.1
Optimal Cycle: 86 Level Of Service: E

Table with columns for Approach, Movement, Control, Rights, Min. Green, Lanes for North, South, East, and West bounds.

Table with columns for Volume Module: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Table with columns for Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns for Capacity Analysis Module: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

\*\*\*\*\*

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #15 Telegraph / 18th St

Cycle (sec): 45 Critical Vol./Cap. (X): 0.766
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 9.8
Optimal Cycle: 46 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Lanes.

Volume Module table with 12 columns representing different volume and adjustment factors.

Saturation Flow Module table with 12 columns representing saturation flow and adjustment factors.

Capacity Analysis Module table with 12 columns representing capacity analysis metrics.

\*\*\*\*\*

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #16 Telegraph Ave./ 17th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.679
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 12.9
Optimal Cycle: 39 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Lanes.

Volume Module table with 12 columns representing different volume and adjustment factors.

Saturation Flow Module table with 12 columns representing saturation flow and adjustment factors.

Capacity Analysis Module table with 12 columns representing capacity analysis metrics.

\*\*\*\*\*

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak  
ACCMA Analysis

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Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)  
\*\*\*\*\*  
Intersection #17 Broadway/ W. Grand Ave.  
\*\*\*\*\*  
Cycle (sec): 85 Critical Vol./Cap. (X): 1.385  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 64.5  
Optimal Cycle: 120 Level Of Service: E  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
-----  
Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 37 0 0 37 0 0 42 0 0 42 0  
Lanes: 1 0 2 0 1 1 0 1 1 0 1 0 1 0 1 0  
-----  
Volume Module:  
Base Vol: 301 734 200 59 494 125 136 585 86 84 356 33  
Growth Adj: 1.12 1.12 1.12 1.03 1.03 1.03 1.61 1.61 1.61 1.30 1.30 1.30  
Initial Bse: 337 822 224 61 509 129 219 942 138 109 463 43  
Added Vol: 0 4 3 0 9 20 12 61 0 10 106 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 337 826 227 61 518 149 231 1003 138 119 569 43  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 375 918 252 68 575 165 257 1114 154 132 632 48  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 375 918 252 68 575 165 257 1114 154 132 632 48  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 375 918 252 68 575 165 257 1114 154 132 632 48  
-----  
Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.29 0.95 0.72 0.22 0.85 0.85 0.23 0.86 0.86 0.44 0.44 0.44  
Lanes: 1.00 2.00 1.00 1.00 1.55 0.45 1.00 1.76 0.24 0.32 1.56 0.12  
Final Sat.: 555 3610 1373 418 2508 721 441 2881 398 275 1313 99  
-----  
Capacity Analysis Module:  
Vol/Sat: 0.68 0.25 0.18 0.16 0.23 0.23 0.58 0.39 0.39 0.48 0.48 0.48  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.49 0.49 0.49 0.49 0.49 0.49 0.42 0.42 0.42 0.42 0.42 0.42  
Volume/Cap: 1.38 0.52 0.38 0.33 0.47 0.47 1.38 0.92 0.92 1.14 1.14 1.14  
Delay/Veh: 216.7 16.4 15.6 17.9 15.8 15.8 228.1 35.2 35.2 106.3 106 106.3  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 216.7 16.4 15.6 17.9 15.8 15.8 228.1 35.2 35.2 106.3 106 106.3  
DesignQueue: 10 24 6 2 15 4 7 34 5 4 19 1  
\*\*\*\*\*

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak  
ACCMA Analysis

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Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)  
\*\*\*\*\*  
Intersection #18 Broadway/ 20th St.  
\*\*\*\*\*  
Cycle (sec): 60 Critical Vol./Cap. (X): 0.515  
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 13.1  
Optimal Cycle: 56 Level Of Service: B  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
-----  
Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 30 0 0 30 0 0 18 0 0 18 0  
Lanes: 0 1 0 1 0 1 0 1 1 0 1 0 1 0 1 0  
-----  
Volume Module:  
Base Vol: 27 360 91 36 573 40 38 249 43 70 196 84  
Growth Adj: 1.23 1.23 1.23 1.16 1.16 1.16 1.01 1.01 1.01 1.01 1.01 1.01  
Initial Bse: 33 443 112 42 665 46 38 251 43 71 198 85  
Added Vol: 0 0 0 0 3 16 7 18 0 3 32 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 33 443 112 42 668 62 45 269 43 74 230 85  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.93 0.93 0.93 0.96 0.96 0.96 0.94 0.94 0.94 0.92 0.92 0.92  
PHF Volume: 36 476 120 43 696 65 48 287 46 80 250 92  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 36 476 120 43 696 65 48 287 46 80 250 92  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 36 476 120 43 696 65 48 287 46 80 250 92  
-----  
Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.67 0.67 0.67 0.33 0.76 0.76 0.65 0.65 0.65 0.61 0.61 0.61  
Lanes: 0.11 1.51 0.38 1.00 1.83 0.17 0.25 1.51 0.24 0.38 1.18 0.44  
Final Sat.: 143 1909 483 634 2639 247 315 1868 301 438 1366 504  
-----  
Capacity Analysis Module:  
Vol/Sat: 0.25 0.25 0.25 0.07 0.26 0.26 0.15 0.15 0.15 0.18 0.18 0.18  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.51 0.51 0.51 0.51 0.51 0.51 0.36 0.36 0.36 0.36 0.36 0.36  
Volume/Cap: 0.49 0.49 0.49 0.13 0.52 0.52 0.43 0.43 0.43 0.52 0.52 0.52  
Delay/Veh: 10.9 10.9 10.9 8.5 11.0 11.0 16.3 16.3 16.3 17.6 17.6 17.6  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 10.9 10.9 10.9 8.5 11.0 11.0 16.3 16.3 16.3 17.6 17.6 17.6  
DesignQueue: 1 8 2 1 12 1 1 6 1 2 6 2  
\*\*\*\*\*

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak
ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #19 Broadway/ 19th St.
Cycle (sec): 60 Critical Vol./Cap. (X): 0.909
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 26.6
Optimal Cycle: 81 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 21 0 0 21 0 0 0 0 0 31 0 0
Lanes: 0 1 1 0 0 0 0 2 1 0 0 0 0 0 0
Volume Module:
Base Vol: 48 383 0 0 695 60 0 0 0 93 582 111
Growth Adj: 1.33 1.33 1.33 1.14 1.14 1.14 1.00 1.00 1.00 1.74 1.74 1.74
Initial Bse: 64 509 0 0 792 68 0 0 0 162 1013 193
Added Vol: 0 0 0 0 0 6 0 0 0 0 68 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 64 509 0 0 792 74 0 0 0 162 1081 193
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 71 566 0 0 880 83 0 0 0 180 1201 215
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 71 566 0 0 880 83 0 0 0 180 1201 215
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 71 566 0 0 880 83 0 0 0 180 1201 215
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.61 0.61 1.00 1.00 0.81 0.81 1.00 1.00 1.00 0.82 0.82 0.82
Lanes: 0.22 1.78 0.00 0.00 2.74 0.26 0.00 0.00 0.00 0.22 1.51 0.27
Final Sat.: 257 2047 0 0 4212 396 0 0 0 352 2349 420
Capacity Analysis Module:
Vol/Sat: 0.28 0.28 0.00 0.00 0.21 0.21 0.00 0.00 0.00 0.51 0.51 0.51
Crit Moves: \*\*\*\*
Green/Cycle: 0.35 0.35 0.00 0.00 0.35 0.35 0.00 0.00 0.00 0.52 0.52 0.52
Volume/Cap: 0.79 0.79 0.00 0.00 0.60 0.60 0.00 0.00 0.00 0.99 0.99 0.99
Delay/Veh: 22.8 22.8 0.0 0.0 16.6 16.6 0.0 0.0 0.0 34.2 34.2 34.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 22.8 22.8 0.0 0.0 16.6 16.6 0.0 0.0 0.0 34.2 34.2 34.2
DesignQueue: 2 13 0 0 20 2 0 0 0 3 22 4

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak
ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #20 Broadway/ 17th St.
Cycle (sec): 60 Critical Vol./Cap. (X): 0.681
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 15.9
Optimal Cycle: 60 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 27 0 0 27 0 0 25 0 0 0 0
Lanes: 0 0 1 1 0 0 1 2 0 0 1 0 1 1 0 0 0 0 0 0
Volume Module:
Base Vol: 0 358 82 109 635 0 80 398 63 0 0 0
Growth Adj: 1.06 1.06 1.06 1.07 1.07 1.07 1.76 1.76 1.76 1.00 1.00 1.00
Initial Bse: 0 379 87 117 679 0 141 700 111 0 0 0
Added Vol: 0 0 0 0 0 0 0 37 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 379 87 117 679 0 141 737 111 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 422 97 130 755 0 156 819 123 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 422 97 130 755 0 156 819 123 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 422 97 130 755 0 156 819 123 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.75 0.75 0.59 0.59 1.00 0.88 0.75 0.75 1.00 1.00 1.00
Lanes: 0.00 1.63 0.37 0.44 2.56 0.00 1.00 1.74 0.26 0.00 0.00 0.00
Final Sat.: 0 2313 530 495 2886 0 1676 2491 375 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.18 0.18 0.26 0.26 0.00 0.09 0.33 0.33 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.45 0.45 0.45 0.45 0.00 0.42 0.42 0.42 0.00 0.00 0.00
Volume/Cap: 0.00 0.41 0.41 0.58 0.58 0.00 0.22 0.79 0.79 0.00 0.00 0.00
Delay/Veh: 0.0 12.1 12.1 13.9 13.9 0.0 12.0 20.6 20.6 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 12.1 12.1 13.9 13.9 0.0 12.0 20.6 20.6 0.0 0.0 0.0
DesignQueue: 0 8 2 2 14 0 3 17 3 0 0 0

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak  
ACCMA Analysis

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #21 Broadway/ 15th St.  
\*\*\*\*\*

Cycle (sec):	60	Critical Vol./Cap. (X):	0.513
Loss Time (sec):	8 (Y+R = 9 sec)	Average Delay (sec/veh):	10.0
Optimal Cycle:	33	Level Of Service:	A

\*\*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0 25 0	0 25 0	0 0 0	0 0 0
Lanes:	0 0 2 0 0	0 0 2 0 0	0 0 0 0 1	0 0 0 0 2

\*\*\*\*\*

Volume Module:

Base Vol:	0 556 0	0 720 0	0 0 0	0 0 0	250
Growth Adj:	1.06 1.06 1.06	1.01 1.01 1.01	1.00 1.00 1.00	1.30 1.30 1.30	1.30
Initial Bse:	0 589 0	0 727 0	0 0 0	0 0 0	325
Added Vol:	0 54 0	0 29 0	0 0 0	0 0 0	0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0	0
Initial Fut:	0 643 0	0 756 0	0 0 0	0 0 0	325
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00
PHF Adj:	0.90 0.90 0.90	0.90 0.90 0.90	0.90 0.90 0.90	0.90 0.90 0.90	0.90
PHF Volume:	0 715 0	0 840 0	0 0 0	0 0 0	361
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0	0
Reduced Vol:	0 715 0	0 840 0	0 0 0	0 0 0	361
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00
Final Vol.:	0 715 0	0 840 0	0 0 0	0 0 0	361

\*\*\*\*\*

Saturation Flow Module:

Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjustment:	1.00 0.77 1.00	1.00 0.77 1.00	1.00 1.00 1.00	1.00 1.00 0.61
Lanes:	0.00 2.00 0.00	0.00 2.00 0.00	0.00 0.00 1.00	0.00 0.00 2.00
Final Sat.:	0 2924 0	0 2924 0	0 0 0	0 0 2302

\*\*\*\*\*

Capacity Analysis Module:

Vol/Sat:	0.00 0.24 0.00	0.00 0.29 0.00	0.00 0.00 0.00	0.00 0.00 0.16
Crit Moves:	****	****	****	****
Green/Cycle:	0.00 0.56 0.00	0.00 0.56 0.00	0.00 0.00 0.00	0.00 0.00 0.31
Volume/Cap:	0.00 0.44 0.00	0.00 0.51 0.00	0.00 0.00 0.00	0.00 0.00 0.51
Delay/Veh:	0.0 7.9 0.0	0.0 8.4 0.0	0.0 0.0 0.0	0.0 0.0 17.8
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	0.0 7.9 0.0	0.0 8.4 0.0	0.0 0.0 0.0	0.0 0.0 17.8
DesignQueue:	0 11 0	0 13 0	0 0 0	0 0 9

\*\*\*\*\*

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak  
ACCMA Analysis

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #22 Broadway/ 14th St.  
\*\*\*\*\*

Cycle (sec):	60	Critical Vol./Cap. (X):	0.615
Loss Time (sec):	8 (Y+R = 8 sec)	Average Delay (sec/veh):	14.3
Optimal Cycle:	60	Level Of Service:	B

\*\*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0 26 0	0 26 0	0 26 0	0 26 0
Lanes:	0 0 1 1 0	0 0 2 1 0	0 0 1 1 0	0 0 1 1 0

\*\*\*\*\*

Volume Module:

Base Vol:	0 433 29	0 921 87	0 273 152	0 397 106
Growth Adj:	1.07 1.07 1.07	1.04 1.04 1.04	1.02 1.02 1.02	1.22 1.22 1.22
Initial Bse:	0 463 31	0 958 90	0 278 155	0 484 129
Added Vol:	0 22 0	0 29 0	0 0 0	0 0 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	0 485 31	0 987 90	0 278 155	0 484 161
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.90 0.90 0.90	0.90 0.90 0.90	0.90 0.90 0.90	0.90 0.90 0.90
PHF Volume:	0 539 34	0 1096 101	0 309 172	0 538 179
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	0 539 34	0 1096 101	0 309 172	0 538 179
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	0 539 34	0 1096 101	0 309 172	0 538 179

\*\*\*\*\*

Saturation Flow Module:

Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjustment:	1.00 0.76 0.76	1.00 0.75 0.75	1.00 0.73 0.73	1.00 0.74 0.74
Lanes:	0.00 1.88 0.12	0.00 2.75 0.25	0.00 1.28 0.72	0.00 1.50 0.50
Final Sat.:	0 2724 174	0 3939 361	0 1777 989	0 2112 704

\*\*\*\*\*

Capacity Analysis Module:

Vol/Sat:	0.00 0.20 0.20	0.00 0.28 0.28	0.00 0.17 0.17	0.00 0.25 0.25
Crit Moves:	****	****	****	****
Green/Cycle:	0.00 0.43 0.43	0.00 0.43 0.43	0.00 0.43 0.43	0.00 0.43 0.43
Volume/Cap:	0.00 0.46 0.46	0.00 0.64 0.64	0.00 0.40 0.40	0.00 0.59 0.59
Delay/Veh:	0.0 13.2 13.2	0.0 15.1 15.1	0.0 12.7 12.7	0.0 15.0 15.0
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	0.0 13.2 13.2	0.0 15.1 15.1	0.0 12.7 12.7	0.0 15.0 15.0
DesignQueue:	0 11 1	0 22 2	0 6 3	0 11 4

\*\*\*\*\*

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak
ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #23 Frontage Rd./ W. Grand Ave.
Cycle (sec): 120 Critical Vol./Cap. (X): 1.527
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 214.5
Optimal Cycle: 120 Level Of Service: F
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 7 0 0 7 0 0
Lanes: 1 0 1 1 0 0 1 0 0 1 0 1 0 1 0 1 0 1 0

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak
ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #24 Mandela Pkwy/ W. Grand Ave.
Cycle (sec): 120 Critical Vol./Cap. (X): 1.427
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 78.8
Optimal Cycle: 120 Level Of Service: E
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 30 0 0 30 0 0 80 0 0 80 0
Lanes: 0 1 0 1 0 0 1 0 1 0 1 0 1 0 1 1 0 1 0
Volume Module:
Base Vol: 107 144 127 35 132 105 127 332 57 220 604 25
Growth Adj: 1.18 1.18 1.18 1.77 1.77 1.77 2.26 2.26 2.26 1.72 1.72 1.72
Initial Bse: 126 170 150 62 234 186 287 750 129 378 1039 43
Added Vol: 0 0 0 0 0 0 0 101 0 0 55 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 126 170 150 62 234 186 287 851 129 378 1094 43
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 140 189 167 69 260 207 319 946 143 420 1215 48
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 140 189 167 69 260 207 319 946 143 420 1215 48
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 140 189 167 69 260 207 319 946 143 420 1215 48
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.49 0.49 0.49 0.58 0.58 0.58 0.16 0.89 0.89 0.21 0.90 0.90
Lanes: 0.57 0.76 0.67 0.26 0.97 0.77 1.00 1.74 0.26 1.00 1.92 0.08
Final Sat.: 529 711 627 281 1060 844 309 2925 443 394 3287 129
Capacity Analysis Module:
Vol/Sat: 0.27 0.27 0.27 0.24 0.24 0.24 1.03 0.32 0.32 1.07 0.37 0.37
Crit Moves: \*\*\*\*
Green/Cycle: 0.25 0.25 0.25 0.25 0.25 0.25 0.68 0.68 0.68 0.68 0.68 0.68
Volume/Cap: 1.06 1.06 1.06 0.98 0.98 0.98 1.51 0.47 0.47 1.56 0.54 0.54
Delay/Veh: 103.9 104 103.9 78.4 78.4 78.4 270.9 9.6 9.6 288.6 10.5 10.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 103.9 104 103.9 78.4 78.4 78.4 270.9 9.6 9.6 288.6 10.5 10.5
DesignQueue: 7 10 9 4 13 11 7 22 3 9 28 1

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak  
ACCMA Analysis

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #25 Northgate Ave./ W. Grand Ave.  
\*\*\*\*\*

Cycle (sec): 80 Critical Vol./Cap. (X): 0.946  
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 77.4  
Optimal Cycle: 117 Level Of Service: E  
\*\*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Protected	Protected	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0	18 0 18	13 30 0	0 30 0
Lanes:	0 0 0 0 0	2 0 0 0 1	1 0 2 0 0	0 0 1 1 0

Volume Module:

Base Vol:	0 0 0	140 0 70	338 737 0	0 647 406
Growth Adj:	1.00 1.00 1.00	1.05 1.05 1.05	1.39 1.39 1.39	1.27 1.27 1.27
Initial Bse:	0 0 0	147 0 74	470 1024 0	0 822 516
Added Vol:	0 0 0	48 0 24	24 59 0	0 16 15
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	0 0 0	195 0 98	494 1083 0	0 838 531
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.95 0.95 0.95	0.95 0.95 0.95	0.95 0.95 0.95	0.95 0.95 0.95
PHF Volume:	0 0 0	205 0 103	520 1140 0	0 882 559
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	0 0 0	205 0 103	520 1140 0	0 882 559
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	0 0 0	205 0 103	520 1140 0	0 882 559

Saturation Flow Module:

Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjustment:	1.00 1.00 1.00	0.92 1.00 0.72	0.95 0.88 1.00	1.00 0.83 0.83
Lanes:	0.00 0.00 0.00	2.00 0.00 1.00	1.00 2.00 0.00	0.00 1.22 0.78
Final Sat.:	0 0 0	3502 0 1373	1805 3339 0	0 1926 1220

Capacity Analysis Module:

Vol/Sat:	0.00 0.00 0.00	0.06 0.00 0.07	0.29 0.34 0.00	0.00 0.46 0.46
Crit Moves:	****	****	****	****
Green/Cycle:	0.00 0.00 0.00	0.23 0.00 0.23	0.24 0.63 0.00	0.00 0.38 0.38
Volume/Cap:	0.00 0.00 0.00	0.26 0.00 0.33	1.19 0.55 0.00	0.00 1.19 1.19
Delay/Veh:	0.0 0.0 0.0	26.3 0.0 28.8	138.0 9.6 0.0	0.0 120 120.1
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	0.0 0.0 0.0	26.3 0.0 28.8	138.0 9.6 0.0	0.0 120 120.1
DesignQueue:	0 0 0	7 0 4	19 21 0	0 27 17

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Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak  
ACCMA Analysis

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #26 Webster St./Grand Ave.  
\*\*\*\*\*

Cycle (sec): 80 Critical Vol./Cap. (X): 0.792  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 25.7  
Optimal Cycle: 75 Level Of Service: C  
\*\*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Permitted	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0	0 23 0	0 31 0	13 31 0
Lanes:	0 0 0 0 0	0 1 0 0 1	0 1 0 1 0	1 0 1 1 0

Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol:	0 0 0	80 284 76	14 577 169	95 312 22
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.40 1.40 1.40	1.37 1.37 1.37
Initial Bse:	0 0 0	80 284 76	20 808 237	130 427 30
Added Vol:	0 0 0	0 0 0	0 64 0	0 117 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	0 0 0	80 284 76	20 872 237	130 544 30
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.94 0.94 0.94	0.94 0.94 0.94	0.94 0.94 0.94	0.94 0.94 0.94
PHF Volume:	0 0 0	85 303 81	21 929 252	139 580 32
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	0 0 0	85 303 81	21 929 252	139 580 32
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	0 0 0	85 303 81	21 929 252	139 580 32

Saturation Flow Module:

Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjustment:	1.00 1.00 1.00	0.85 0.85 0.72	0.80 0.80 0.80	0.95 0.87 0.87
Lanes:	0.00 0.00 0.00	0.22 0.78 1.00	0.03 1.55 0.42	1.00 1.90 0.10
Final Sat.:	0 0 0	355 1260 1373	53 2346 637	1805 3139 174

Capacity Analysis Module:

Vol/Sat:	0.00 0.00 0.00	0.24 0.24 0.06	0.40 0.40 0.40	0.08 0.18 0.18
Crit Moves:	****	****	****	****
Green/Cycle:	0.00 0.00 0.00	0.29 0.29 0.29	0.45 0.45 0.45	0.16 0.61 0.61
Volume/Cap:	0.00 0.00 0.00	0.84 0.84 0.21	0.88 0.88 0.88	0.47 0.30 0.30
Delay/Veh:	0.0 0.0 0.0	42.9 42.9 22.8	28.4 28.4 28.4	35.8 7.8 7.8
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	0.0 0.0 0.0	42.9 42.9 22.8	28.4 28.4 28.4	35.8 7.8 7.8
DesignQueue:	0 0 0	3 10 3	1 25 7	5 10 1

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Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak  
ACCMA Analysis

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)  
Intersection #27 Harrison St. / Grand Ave.  
Cycle (sec): 80 Critical Vol./Cap. (X): 1.101  
Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 56.6  
Optimal Cycle: 120 Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	2	0	1	1	2	0	1	1	0	0

Volume Module:  
Base Vol: 8 1618 738 0 614 73 164 522 172 311 512 105  
Growth Adj: 1.12 1.12 1.12 1.68 1.68 1.68 1.30 1.30 1.30 1.27 1.27 1.27  
Initial Bse: 9 1812 827 0 1032 123 213 679 224 395 650 133  
Added Vol: 0 3 0 0 6 23 13 51 0 0 94 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 9 1815 827 0 1038 146 226 730 224 395 744 133  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95  
PHF Volume: 9 1911 870 0 1092 153 238 768 235 416 783 140  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 9 1911 870 0 1092 153 238 768 235 416 783 140  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 9 1911 870 0 1092 153 238 768 235 416 783 140

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.17 0.95 0.85 0.91 0.89 0.89 0.92 0.92 0.92 0.92 0.93 0.93  
Lanes: 1.00 2.00 1.00 0.00 2.63 0.37 2.00 1.53 0.47 2.00 1.70 0.30  
Final Sat.: 323 3610 1615 0 4467 627 3502 2666 817 3502 2991 536

Capacity Analysis Module:  
Vol/Sat: 0.03 0.53 0.54 0.00 0.24 0.24 0.07 0.29 0.29 0.12 0.26 0.26  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.48 0.48 0.59 0.00 0.48 0.48 0.08 0.26 0.26 0.11 0.29 0.29  
Volume/Cap: 0.06 1.10 0.92 0.00 0.51 0.51 0.89 1.10 1.10 1.10 0.89 0.89  
Delay/Veh: 11.3 75.7 27.9 0.0 14.5 14.5 65.8 91.0 91.0 112.1 37.1 37.1  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 11.3 75.7 27.9 0.0 14.5 14.5 65.8 91.0 91.0 112.1 37.1 37.1  
DesignQueue: 0 51 18 0 27 4 10 27 8 17 26 5

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak  
ACCMA Analysis

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)  
Intersection #28 El Embarcadero / Grand Ave.  
Cycle (sec): 100 Critical Vol./Cap. (X): 0.964  
Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 34.0  
Optimal Cycle: 120 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	20	0	0	0	0	0	0	30	0	10	30	0
Lanes:	1	0	0	0	1	0	0	0	0	2	0	1

Volume Module: >> Count Date: 9 Jul 2003 <<  
Base Vol: 232 0 223 0 0 0 0 1039 743 301 603 0  
Growth Adj: 1.15 1.15 1.15 1.00 1.00 1.00 1.10 1.10 1.10 1.10 1.10 1.10  
Initial Bse: 267 0 256 0 0 0 0 1143 817 331 663 0  
Added Vol: 58 0 0 0 0 0 0 0 51 0 0 36 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 325 0 256 0 0 0 0 1194 817 331 699 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96  
PHF Volume: 338 0 267 0 0 0 0 1241 849 344 727 0  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 338 0 267 0 0 0 0 1241 849 344 727 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 338 0 267 0 0 0 0 1241 849 344 727 0

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.95 1.00 0.85 1.00 1.00 1.00 1.00 0.95 0.68 0.95 0.85 1.00  
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 2.00 1.00 1.00 2.00 0.00  
Final Sat.: 1805 0 1615 0 0 0 0 3610 1292 1805 3249 0

Capacity Analysis Module:  
Vol/Sat: 0.19 0.00 0.17 0.00 0.00 0.00 0.00 0.34 0.66 0.19 0.22 0.00  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.20 0.00 0.20 0.00 0.00 0.00 0.00 0.48 0.68 0.20 0.68 0.00  
Volume/Cap: 0.94 0.00 0.83 0.00 0.00 0.00 0.00 0.72 0.97 0.95 0.33 0.00  
Delay/Veh: 70.5 0.0 54.1 0.0 0.0 0.0 0.0 22.1 37.5 74.7 6.7 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 70.5 0.0 54.1 0.0 0.0 0.0 0.0 22.1 37.5 74.7 6.7 0.0  
DesignQueue: 16 0 12 0 0 0 0 39 17 16 14 0

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #29 MacArthur Blvd./ Grand Ave.
Cycle (sec): 80 Critical Vol./Cap. (X): 1.023
Loss Time (sec): 12 (Y+R = 8 sec) Average Delay (sec/veh): 52.1
Optimal Cycle: 120 Level Of Service: D
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 25 0 20 0 15 20 0
Lanes: 0 0 0 0 0 1 1 1 0 0 0 2 0 1 1 0 3 0 0
Volume Module: >> Count Date: 9 Nov 2000 <<
Base Vol: 0 0 0 278 650 225 0 657 497 239 710 0
Growth Adj: 1.00 1.00 1.00 1.37 1.37 1.37 1.05 1.05 1.05 1.12 1.12 1.12
Initial Bse: 0 0 0 381 891 308 0 690 522 268 795 0
Added Vol: 0 0 0 0 0 0 0 0 0 51 0 36 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 381 891 308 0 690 573 268 831 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 0 0 401 937 324 0 726 603 282 875 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 401 937 324 0 726 603 282 875 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 401 937 324 0 726 603 282 875 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.86 0.86 0.86 1.00 0.95 0.85 0.95 0.91 1.00
Lanes: 0.00 0.00 0.00 0.72 1.69 0.59 0.00 2.00 1.00 1.00 3.00 0.00
Final Sat.: 0 0 0 1179 2757 954 0 3610 1615 1805 5187 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.34 0.34 0.34 0.00 0.20 0.37 0.16 0.17 0.00
Crit Moves:
Green/Cycle: 0.00 0.00 0.00 0.32 0.32 0.32 0.00 0.35 0.35 0.19 0.53 0.00
Volume/Cap: 0.00 0.00 0.00 1.08 1.08 1.08 0.00 0.58 1.08 0.83 0.32 0.00
Delay/Veh: 0.0 0.0 0.0 74.1 74.1 74.1 0.0 23.3 86.4 52.0 10.7 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 74.1 74.1 74.1 0.0 23.3 86.4 52.0 10.7 0.0
DesignQueue: 0 0 0 13 31 11 0 22 19 11 19 0

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #30 MacArthur Blvd./ Lake Shore Ave.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.776
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 30.3
Optimal Cycle: 76 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Prot+Permit
Rights: Include Ignore Include Include
Min. Green: 0 0 0 0 22 0 0 30 0 12 30 0
Lanes: 0 0 0 0 0 1 1 2 0 1 0 0 2 0 1 1 0 2 0 0
Volume Module: >> Count Date: 9 Jul 2003 <<
Base Vol: 0 0 0 220 1021 104 0 485 385 320 512 0
Growth Adj: 1.00 1.00 1.00 1.05 1.05 1.05 1.31 1.31 1.31 1.00 1.00 1.00
Initial Bse: 0 0 0 231 1072 109 0 635 504 320 512 0
Added Vol: 0 0 0 0 51 0 0 0 0 0 58 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 231 1123 109 0 635 504 320 570 0
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.00 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 0 0 0 250 1218 0 0 689 547 347 618 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 250 1218 0 0 689 547 347 618 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 250 1218 0 0 689 547 347 618 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.77 0.77 1.00 1.00 0.95 0.85 0.50 0.95 1.00
Lanes: 0.00 0.00 0.00 1.00 3.00 1.00 0.00 2.00 1.00 1.00 2.00 0.00
Final Sat.: 0 0 0 1470 4409 1900 0 3610 1615 958 3610 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.17 0.28 0.00 0.00 0.19 0.34 0.36 0.17 0.00
Crit Moves:
Green/Cycle: 0.00 0.00 0.00 0.28 0.28 0.00 0.00 0.38 0.38 0.57 0.57 0.00
Volume/Cap: 0.00 0.00 0.00 0.61 0.99 0.00 0.00 0.51 0.90 0.64 0.30 0.00
Delay/Veh: 0.0 0.0 0.0 25.4 48.6 0.0 0.0 19.6 40.5 12.5 9.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 25.4 48.6 0.0 0.0 19.6 40.5 12.5 9.0 0.0
DesignQueue: 0 0 0 8 41 0 0 20 16 13 12 0

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak
ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
\*\*\*\*\*
Intersection #31 Lake Park Ave./ Lake Shore Ave.
\*\*\*\*\*
Cycle (sec): 90 Critical Vol./Cap. (X): 0.830
Loss Time (sec): 16 (Y+R = 12 sec) Average Delay (sec/veh): 45.9
Optimal Cycle: 89 Level Of Service: D
\*\*\*\*\*
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Permitted
Rights: Include Include Include Include
Min. Green: 20 20 20 8 0 8 13 25 0 0 25 0
Lanes: 1 0 1 0 1 1 0 0 0 1 0 0 1 1 0
\*\*\*\*\*
Volume Module: >> Count Date: 17 Jul 2003 <<
Base Vol: 360 456 227 75 0 81 269 459 0 0 336 212
Growth Adj: 1.04 1.04 1.04 1.28 1.28 1.28 1.16 1.16 1.16 1.03 1.03 1.03
Initial Bse: 374 474 236 96 0 104 312 532 0 0 346 218
Added Vol: 58 36 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 432 510 236 96 0 104 312 532 0 0 346 218
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
PHF Volume: 447 527 244 99 0 107 322 550 0 0 358 226
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 447 527 244 99 0 107 322 550 0 0 358 226
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 447 527 244 99 0 107 322 550 0 0 358 226
\*\*\*\*\*
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 1.00 0.85 0.95 1.00 0.85 0.95 0.95 1.00 1.00 0.89 0.89
Lanes: 1.00 1.00 1.00 1.00 0.00 1.00 1.00 2.00 0.00 0.00 1.23 0.77
Final Sat.: 1805 1900 1615 1805 0 1615 1805 3610 0 0 2085 1316
\*\*\*\*\*
Capacity Analysis Module:
Vol/Sat: 0.25 0.28 0.15 0.05 0.00 0.07 0.18 0.15 0.00 0.00 0.17 0.17
Crit Moves: \*\*\*\*
Green/Cycle: 0.28 0.28 0.28 0.09 0.00 0.09 0.18 0.46 0.00 0.00 0.28 0.28
Volume/Cap: 0.89 1.00 0.55 0.62 0.00 0.75 1.00 0.33 0.00 0.00 0.62 0.62
Delay/Veh: 49.4 72.1 29.1 46.7 0.0 59.1 87.4 15.8 0.0 0.0 29.6 29.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 49.4 72.1 29.1 46.7 0.0 59.1 87.4 15.8 0.0 0.0 29.6 29.6
DesignQueue: 17 21 9 5 0 5 14 16 0 0 13 8
\*\*\*\*\*

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak
ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
\*\*\*\*\*
Intersection #32 Brush St./ 18th St.
\*\*\*\*\*
Cycle (sec): 70 Critical Vol./Cap. (X): 0.381
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 10.6
Optimal Cycle: 61 Level Of Service: B
\*\*\*\*\*
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 45 0 0 0 0 0 8 0
Lanes: 0 0 0 0 0 0 3 1 0 0 0 0 0 1 0 2 0 0
\*\*\*\*\*
Volume Module:
Base Vol: 0 0 0 0 1000 84 0 0 0 150 196 0
Growth Adj: 1.00 1.00 1.00 1.06 1.06 1.06 1.00 1.00 1.00 1.04 1.04 1.04
Initial Bse: 0 0 0 0 1060 89 0 0 0 156 204 0
Added Vol: 0 0 0 0 0 0 0 0 0 63 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 0 1060 89 0 0 0 219 204 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 0 0 0 1178 99 0 0 0 243 226 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 0 1178 99 0 0 0 243 226 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 0 1178 99 0 0 0 243 226 0
\*\*\*\*\*
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 1.00 0.90 0.90 1.00 1.00 1.00 0.85 0.95 1.00
Lanes: 0.00 0.00 0.00 0.00 3.69 0.31 0.00 0.00 0.00 1.00 2.00 0.00
Final Sat.: 0 0 0 0 6304 529 0 0 0 1615 3610 0
\*\*\*\*\*
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.00 0.19 0.19 0.00 0.00 0.00 0.15 0.06 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.00 0.00 0.00 0.64 0.64 0.00 0.00 0.00 0.24 0.24 0.00
Volume/Cap: 0.00 0.00 0.00 0.00 0.29 0.29 0.00 0.00 0.00 0.62 0.26 0.00
Delay/Veh: 0.0 0.0 0.0 0.0 5.5 5.5 0.0 0.0 0.0 26.7 21.6 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 0.0 5.5 5.5 0.0 0.0 0.0 26.7 21.6 0.0
DesignQueue: 0 0 0 0 17 1 0 0 0 7 7 0
\*\*\*\*\*

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak  
ACCMA Analysis

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #33 18th St./ Castro St.  
\*\*\*\*\*

Cycle (sec): 40 Critical Vol./Cap. (X): 0.978  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 53.9  
Optimal Cycle: 81 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	20	0	0	0	0	0	0	0	0	13	0
Lanes:	1	1	3	0	0	0	0	0	0	0	0	1

Volume Module:  
Base Vol: 212 1698 0 0 0 0 0 0 0 0 115 737  
Growth Adj: 1.21 1.21 1.21 1.00 1.00 1.00 1.00 1.00 1.00 1.33 1.33 1.33  
Initial Bse: 257 2055 0 0 0 0 0 0 0 0 153 980  
Added Vol: 0 0 0 0 0 0 0 0 0 0 63 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 257 2055 0 0 0 0 0 0 0 0 216 980  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 285 2283 0 0 0 0 0 0 0 0 240 1089  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 285 2283 0 0 0 0 0 0 0 0 240 1089  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 285 2283 0 0 0 0 0 0 0 0 240 1089

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.77 0.77 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.88 0.88  
Lanes: 1.00 4.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.36 1.64  
Final Sat.: 1470 5879 0 0 0 0 0 0 0 0 602 2731

Capacity Analysis Module:  
Vol/Sat: 0.19 0.39 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.40 0.40  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.49 0.49 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.32 0.32  
Volume/Cap: 0.40 0.80 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 1.26 1.26  
Delay/Veh: 6.9 10.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 138 137.8  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 6.9 10.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 138 137.8  
DesignQueue: 3 29 0 0 0 0 0 0 0 0 4 19

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak  
ACCMA Analysis

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #34 MLK Jr. Way/ 18th St.  
\*\*\*\*\*

Cycle (sec): 60 Critical Vol./Cap. (X): 0.489  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 14.5  
Optimal Cycle: 62 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	27	0	0	27	0	0	0	0	0	27	0
Lanes:	0	1	1	0	0	1	0	0	0	1	0	2

Volume Module: >> Count Date: 8 Jul 2003 <<  
Base Vol: 63 134 0 0 182 133 0 0 0 18 725 0  
Growth Adj: 1.12 1.12 1.12 1.14 1.14 1.14 1.00 1.00 1.00 1.74 1.74 1.74  
Initial Bse: 71 150 0 0 207 152 0 0 0 31 1262 0  
Added Vol: 0 0 0 0 0 0 0 0 0 4 63 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 71 150 0 0 207 152 0 0 0 35 1325 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 78 167 0 0 231 168 0 0 0 39 1472 0  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 78 167 0 0 231 168 0 0 0 39 1472 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 78 167 0 0 231 168 0 0 0 39 1472 0

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.67 0.67 1.00 1.00 0.82 0.82 1.00 1.00 1.00 1.00 0.86 0.91  
Lanes: 0.64 1.36 0.00 0.00 1.16 0.84 0.00 0.00 0.00 1.00 3.00 0.00  
Final Sat.: 811 1724 0 0 1808 1321 0 0 0 1900 4928 0

Capacity Analysis Module:  
Vol/Sat: 0.10 0.10 0.00 0.00 0.13 0.13 0.00 0.00 0.00 0.02 0.30 0.00  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.44 0.44 0.00 0.00 0.44 0.44 0.00 0.00 0.00 0.44 0.44 0.00  
Volume/Cap: 0.22 0.22 0.00 0.00 0.29 0.29 0.00 0.00 0.00 0.05 0.69 0.00  
Delay/Veh: 11.4 11.4 0.0 0.0 11.9 11.9 0.0 0.0 0.0 10.2 15.9 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 11.4 11.4 0.0 0.0 11.9 11.9 0.0 0.0 0.0 10.2 15.9 0.0  
DesignQueue: 2 3 0 0 5 3 0 0 0 1 31 0

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak  
ACCMA Analysis

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #35 Brush St. / 17th St.  
\*\*\*\*\*  
Cycle (sec): 60 Critical Vol./Cap. (X): 0.433  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 11.8  
Optimal Cycle: 48 Level Of Service: B  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 35 0 0 5 0 0 0 0 0  
Lanes: 0 0 0 0 0 1 1 2 0 0 0 0 1 1 0 0 0 0 0 0  
\*\*\*\*\*  
Volume Module:  
Base Vol: 0 0 0 759 394 0 0 245 179 0 0 0  
Growth Adj: 1.00 1.00 1.00 1.03 1.03 1.03 1.36 1.36 1.36 1.00 1.00 1.00  
Initial Bse: 0 0 0 782 406 0 0 333 243 0 0 0  
Added Vol: 0 0 0 0 63 0 0 29 0 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 0 0 0 782 469 0 0 362 243 0 0 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 0 0 0 869 521 0 0 402 270 0 0 0  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 0 0 869 521 0 0 402 270 0 0 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 0 0 0 869 521 0 0 402 270 0 0 0  
\*\*\*\*\*  
Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 1.00 1.00 0.77 0.77 1.00 1.00 0.89 0.89 1.00 1.00 1.00  
Lanes: 0.00 0.00 0.00 2.00 2.00 0.00 0.00 1.20 0.80 0.00 0.00 0.00  
Final Sat.: 0 0 0 2939 2939 0 0 2029 1364 0 0 0  
\*\*\*\*\*  
Capacity Analysis Module:  
Vol/Sat: 0.00 0.00 0.00 0.30 0.18 0.00 0.00 0.20 0.20 0.00 0.00 0.00  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.00 0.00 0.00 0.58 0.58 0.00 0.00 0.28 0.28 0.00 0.00 0.00  
Volume/Cap: 0.00 0.00 0.00 0.51 0.30 0.00 0.00 0.70 0.70 0.00 0.00 0.00  
Delay/Veh: 0.0 0.0 0.0 7.5 6.4 0.0 0.0 21.5 21.5 0.0 0.0 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 0.0 0.0 7.5 6.4 0.0 0.0 21.5 21.5 0.0 0.0 0.0  
DesignQueue: 0 0 0 13 8 0 0 10 7 0 0 0  
\*\*\*\*\*

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak  
ACCMA Analysis

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #36 17th St / Castro St/I-980 Off-Ramp  
\*\*\*\*\*  
Cycle (sec): 85 Critical Vol./Cap. (X): 0.799  
Loss Time (sec): 12 (Y+R = 6 sec) Average Delay (sec/veh): 32.8  
Optimal Cycle: 73 Level Of Service: C  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Permitted Permitted Split Phase Split Phase  
Rights: Include Include Include Include  
Min. Green: 0 10 0 0 0 0 0 20 0 0 20 0  
Lanes: 0 0 1 1 0 0 0 0 0 1 0 3 0 0 0 0 2 1 0  
\*\*\*\*\*  
Volume Module:  
Base Vol: 0 645 31 0 0 0 216 707 0 0 1371 68  
Growth Adj: 1.26 1.26 1.26 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 813 39 0 0 0 216 707 0 0 1371 68  
Added Vol: 0 0 87 0 0 0 0 29 0 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 0 813 126 0 0 0 216 736 0 0 1371 68  
User Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 0 813 126 0 0 0 216 736 0 0 1371 68  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 813 126 0 0 0 216 736 0 0 1371 68  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 0 813 126 0 0 0 216 736 0 0 1371 68  
\*\*\*\*\*  
Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 0.93 0.93 1.00 1.00 1.00 0.95 0.91 1.00 1.00 0.90 0.90  
Lanes: 0.00 1.73 0.27 0.00 0.00 0.00 1.00 3.00 0.00 0.00 2.86 0.14  
Final Sat.: 0 3063 475 0 0 0 1805 5187 0 0 4907 243  
\*\*\*\*\*  
Capacity Analysis Module:  
Vol/Sat: 0.00 0.27 0.27 0.00 0.00 0.00 0.12 0.14 0.00 0.00 0.28 0.28  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.00 0.30 0.30 0.00 0.00 0.00 0.24 0.24 0.00 0.00 0.32 0.32  
Volume/Cap: 0.00 0.87 0.87 0.00 0.00 0.00 0.51 0.60 0.00 0.00 0.87 0.87  
Delay/Veh: 0.0 36.1 36.1 0.0 0.0 0.0 29.3 29.8 0.0 0.0 32.8 32.8  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 36.1 36.1 0.0 0.0 0.0 29.3 29.8 0.0 0.0 32.8 32.8  
DesignQueue: 0 29 4 0 0 0 8 28 0 0 47 2  
\*\*\*\*\*

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak
ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #37 MLK Jr. Way/ 17th St
Cycle (sec): 60 Critical Vol./Cap. (X): 0.276
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 11.2
Optimal Cycle: 58 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 25 0 0 25 0 0 25 0 0 0 0 0
Lanes: 0 0 1 1 0 0 1 1 0 0 0 1 2 1 0 0 0 0 0 0
Volume Module: >> Count Date: 8 Jul 2003 <<
Base Vol: 0 170 29 21 191 0 10 478 45 0 0 0 0
Growth Adj: 1.53 1.53 1.53 1.37 1.37 1.37 1.20 1.20 1.20 1.00 1.00 1.00
Initial Bse: 0 260 44 29 262 0 12 574 54 0 0 0 0
Added Vol: 0 0 7 0 4 0 0 115 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 260 51 29 266 0 12 689 54 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 289 57 32 295 0 13 765 60 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 289 57 32 295 0 13 765 60 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 289 57 32 295 0 13 765 60 0 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.93 0.93 0.78 0.78 1.00 0.86 0.86 0.86 1.00 1.00 1.00
Lanes: 0.00 1.67 0.33 0.20 1.80 0.00 0.06 3.65 0.29 0.00 0.00 0.00
Final Sat.: 0 2939 581 290 2682 0 104 5942 466 0 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.10 0.10 0.11 0.11 0.00 0.13 0.13 0.13 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.42 0.42 0.42 0.42 0.00 0.45 0.45 0.45 0.00 0.00 0.00
Volume/Cap: 0.00 0.24 0.24 0.26 0.26 0.00 0.29 0.29 0.29 0.00 0.00 0.00
Delay/Veh: 0.0 11.7 11.7 12.0 12.0 0.0 10.7 10.7 10.7 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 11.7 11.7 12.0 12.0 0.0 10.7 10.7 10.7 0.0 0.0 0.0
DesignQueue: 0 6 1 1 6 0 0 14 1 0 0 0 0

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak
ACCMA Analysis

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #38 Jefferson St./ 17th St.
Cycle (sec): 60 Critical Vol./Cap. (X): 0.269
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 10.7
Optimal Cycle: 59 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 25 0 0 25 0 0 26 0 0 0 0 0 0
Lanes: 0 0 1 1 0 0 1 1 0 0 0 1 2 1 0 0 0 0 0 0
Volume Module: >> Count Date: 8 Jul 2003 <<
Base Vol: 0 157 52 7 57 0 24 429 44 0 0 0 0
Growth Adj: 1.53 1.53 1.53 1.37 1.37 1.37 1.20 1.20 1.20 1.00 1.00 1.00
Initial Bse: 0 240 80 10 78 0 29 515 53 0 0 0 0
Added Vol: 0 0 0 0 0 0 0 0 123 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 240 80 10 78 0 29 638 53 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 267 88 11 87 0 32 709 59 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 267 88 11 87 0 32 709 59 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 267 88 11 87 0 32 709 59 0 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.85 0.85 0.79 0.79 1.00 0.86 0.86 0.86 1.00 1.00 1.00
Lanes: 0.00 1.50 0.50 0.22 1.78 0.00 0.16 3.55 0.29 0.00 0.00 0.00
Final Sat.: 0 2416 800 330 2686 0 261 5772 478 0 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.11 0.11 0.03 0.03 0.00 0.12 0.12 0.12 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.42 0.42 0.42 0.42 0.00 0.45 0.45 0.45 0.00 0.00 0.00
Volume/Cap: 0.00 0.27 0.27 0.08 0.08 0.00 0.27 0.27 0.27 0.00 0.00 0.00
Delay/Veh: 0.0 11.6 11.6 10.6 10.6 0.0 10.4 10.4 10.4 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 11.6 11.6 10.6 10.6 0.0 10.4 10.4 10.4 0.0 0.0 0.0
DesignQueue: 0 5 2 0 2 0 1 13 1 0 0 0 0

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #39 Franklin St./ 17th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.596
Loss Time (sec): 8 (Y+R = 7 sec) Average Delay (sec/veh): 48.9
Optimal Cycle: 45 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 23 0 0 0 0 0 14 0 0 0 0 0
Lanes: 0 0 3 1 0 0 0 0 0 0 0 1 1 0 0 0 0 0 0 0

Volume Module: >> Count Date: 8 Jul 2003 <<
Base Vol: 0 440 109 0 0 0 120 455 0 0 0 0 0
Growth Adj: 1.43 1.43 1.43 1.00 1.00 1.00 1.51 1.51 1.51 1.00 1.00 1.00
Initial Bse: 0 629 156 0 0 0 181 687 0 0 0 0 0
Added Vol: 0 32 0 0 0 0 0 37 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 661 156 0 0 0 181 724 0 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91
PHF Volume: 0 727 171 0 0 0 199 796 0 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 727 171 0 0 0 199 796 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 727 171 0 0 0 199 796 0 0 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.85 0.85 1.00 1.00 1.00 0.75 0.75 1.00 1.00 1.00 1.00
Lanes: 0.00 3.24 0.76 0.00 0.00 0.00 0.40 1.60 0.00 0.00 0.00 0.00
Final Sat.: 0 5231 1233 0 0 0 568 2270 0 0 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.14 0.14 0.00 0.00 0.00 0.35 0.35 0.00 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.51 0.51 0.00 0.00 0.00 0.31 0.31 0.00 0.00 0.00 0.00
Volume/Cap: 0.00 0.27 0.27 0.00 0.00 0.00 1.13 1.13 0.00 0.00 0.00 0.00
Delay/Veh: 0.0 6.4 6.4 0.0 0.0 0.0 87.2 87.2 0.0 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 6.4 6.4 0.0 0.0 0.0 87.2 87.2 0.0 0.0 0.0 0.0
DesignQueue: 0 9 2 0 0 0 4 15 0 0 0 0 0

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak
ACCMA Analysis

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #40 Webster St./ 17th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.545
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 13.2
Optimal Cycle: 47 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 22 0 0 17 0 0 0 0 0
Lanes: 0 0 0 0 0 1 3 0 0 0 0 1 1 0 0 0 0 0 0 0

Volume Module: >> Count Date: 8 Jul 2003 <<
Base Vol: 0 0 0 94 700 0 0 354 219 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.10 1.10 1.10 1.32 1.32 1.32 1.00 1.00 1.00
Initial Bse: 0 0 0 103 770 0 0 467 289 0 0 0 0
Added Vol: 0 0 0 0 0 0 0 20 18 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 103 770 0 0 487 307 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 0 0 115 856 0 0 541 341 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 115 856 0 0 541 341 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 115 856 0 0 541 341 0 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.74 0.74 1.00 1.00 0.83 0.83 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 0.47 3.53 0.00 0.00 1.23 0.77 0.00 0.00 0.00
Final Sat.: 0 0 0 670 4988 0 0 1930 1216 0 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.17 0.17 0.00 0.00 0.28 0.28 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.00 0.00 0.47 0.47 0.00 0.00 0.36 0.36 0.00 0.00 0.00
Volume/Cap: 0.00 0.00 0.00 0.37 0.37 0.00 0.00 0.78 0.78 0.00 0.00 0.00
Delay/Veh: 0.0 0.0 0.0 8.4 8.4 0.0 0.0 18.5 18.5 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 8.4 8.4 0.0 0.0 18.5 18.5 0.0 0.0 0.0
DesignQueue: 0 0 0 2 12 0 0 10 6 0 0 0 0

## APPROVED AND PLANNED PROJECT LIST



OAKLAND CUMULATIVE GROWTH SCENARIO  
ASSUMPTIONS FOR HOUSING PROJECTS IN DOWNTOWN / OAKLAND CENTRAL  
UPTOWN PROJECT EIR - JUNE 2003

Project	Time Period	Change /#	Oak TAZ	CMA TAZ	Planning District	OC/DT Subarea	Units	House Holds /e/	Location	Status /d/	Comments/Status /e/
<b>PROJECTS TO BE COMPLETED 2000 - 2005 (Post Census 2000)</b>											
x YWCA /#	1		500	500	OC	CC	70		1515 Webster St.	1	Completed 2000
Preservation Park III / Landmark Place	1	C	802	68	OC	CC	92	88	11th/12th & MLK	2	Under construction 7/1/02
Ariso Project	1		496	496	OC	CT	88	84	9th & Franklin	2	Approved 8/00; under construction 5/03
x Tower Lofts	1		768	72	OC	JLD	24	23	SW corner 3rd + Alice	1	Completed (not in 2000 Census)
x 2nd + Broadway Mixed Use (Roscoe's site)	1		768	72	OC	JLD	115	110	200-228 Broadway	3	Approved 2002
4th Street Lofts	1		797	87	OC	JLD	61	59	247 4th	1	Completed (not in 2000 Census)
x Sierra (former Dreyers)	1		797	87	OC	JLD	221	212	311 Oak	2	Under construction 2002
New Market Lofts (former Salseway)	1		797	87	OC	JLD	46	44	201 4th	1	Completed 2001
x Allegro	1		797	87	OC	JLD	188	182	308 Jackson; 189 3rd	1	Completed 2001 (312 total units)
x Allegro	1		798	87	OC	JLD	144	138	2nd to 3rd / Jackson to Madison	1	Completed 2001 (312 total units)
x Brick House Lofts	1		798	87	OC	JLD	10	10	SW corner 3rd + Jackson	1	Completed (not in 2000 Census)
The Landing - Legacy Partners	1		799	87	OC	JLD	282	271	99 Embarcadero	1	Completed 2000
Phoenix Lofts	1		801	481	OC	JLD	31	30	737 2nd	1	Completed 2000
x Removal of Housing in Census	1		801	481	OC	JLD	(3)	(3)	2nd to 3rd / Bush to Castro	1	Housing no longer there
Lake Point Tower (The Essex)	1		517	517	OC	KC	270	257	208 17th St.	1	Completed 2002
x 14th + Jackson	1	N	518	518	OC	KC	50	48	210 14th St.	3	Approved 6/02 (Opportunity Site DT-177)
x Perkins Street Residential Care #/	1		516	516	OC	LGA	56		Perkins + Bellevue	1	Completed
Swan's Market	1	C	71	71	OC	OO	39	38	9th + Washington	1	Completed 2001
Housewives Market	1	C	491	491	OC	OO	200	192	8th/9th/Clay/Jefferson	3	Approved 3/01
8th & Castro Lofts	1		802	68	OC	OO	18	17	8th & Castro	1	Completed 2002
Gem Building Condos (Eighth Street)	1		802	68	OC	OO	16	15	485 8th St.	1	Completed 2000
x 425 28th St.	1	N	56	56	OC	VSA	20	19	27th/28th/Telegraph/Broadway	2	Under construction 7/1/02
x 371 30th St.	1	N	56	56	OC	VSA	22	21	371 30th St.	2	Under construction 2002
Former Sears	1	C	469	469	OC	VSA	53	51	27th + Telegraph	2	Under construction 7/1/02
Telegraph Gateway	1	C	469	469	OC	VSA	50	48	2401 Telegraph	3	Approved 6/01
x Northgate Apartments	1	N	469	469	OC	VSA	42	41	592 Northgate (23rd + Northgate)	2	Under construction 2003
x Valdez + 23rd / Upper Lake Merritt Residential	1	N	504	504	OC	VSA	237	228	2315 Valdez @ 23rd	3	Approved 1/02
<b>PROJECTS TO BE COMPLETED 2000 - 2005 TOTAL</b>							<b>2,422</b>	<b>2,203</b>			
<b>PROJECTS TO BE COMPLETED 2005 - 2010</b>											
xx T10 / Camden	2		489	489	OC	CC	400	384	13th/14th/MLK/Jefferson	5	Pre-development 9/30/02; Housing Opportunity Site DT-2
14th & Harrison Residential	2	T/C	498	498	OC	CC	98	94	1331 Harrison	5	Predevelopment 7/1/02
1640 Broadway (17th & Broadway)	2		500	500	OC	CC	150	144	1640 Broadway	3	Approved 10/01; Assumes mixed use project
11th & Oak senior housing	2	T/C	519	519	OC	CM	39	38	1109 Oak St.	4	Site acquired for affordable housing as of 7/02
x Jack London Square Redevelopment Project - Site G	2	C	788	72	OC	JLD	120	115	Amtrak site	5	Housing proposed as part of parking garage development
x 300 Harrison (City Lofts)	2	T	796	72	OC	JLD	91	87	3rd + Harrison	3	Approved 2003
x Wheelink	2		797	87	OC	JLD	94	90	426 Alice	3	Approved 2002

Uptown Proj Lists - DELIVERABLE.xls/HspjndT (rev. 6/9/03)

Page 1 of 3

Project	Time Period	Change /#	Oak TAZ	CMA TAZ	Planning District	OC/DT Subarea	Units	House Holds /e/	Location	Status /d/	Comments/Status /e/
14th & Madison	2	T/C	517	517	OC	KC	96	94	160 14th St.	4	Site acquired for affordable housing as of 7/02
Cox Cadillac Mixed Use	2	T/C	505	505	OC	LGA	176	169	230 Bay Place	3	Approved 12/01
xx Forest City Residential / Uptown - apartments	2	T/C	70	70	OC	UT	1,000	965	San Pablo/Telegraph/20th/18th	5	Predevelopment 2002/2003
xx Forest City Residential / Uptown - condos	2	T/C	70	70	OC	UT	270	260	San Pablo/Telegraph/18th/19th	5	Predevelopment 2002/2003
xx U.C. Student Housing / Uptown	2	T/C	483	483	OC	UT	1,000		Telegraph/20th/21st	5	1000 beds of student housing; predevelopment 2002/2003
xx U.C. Faculty Housing / Uptown	2	T/C	483	483	OC	UT	50	50	Telegraph/20th/21st	5	50 units of faculty housing; predevelopment 2002/2003
<b>PROJECTS TO BE COMPLETED 2005 - 2010 TOTAL</b>							<b>3,884</b>	<b>2,490</b>			
<b>PROJECTS TO BE COMPLETED 2010 - 2020</b>											
x 18th + Jefferson	3	N	488	488	OC	CC	80	77	18th/Jefferson/San Pablo	7	Housing Opportunity Site DT-14
x 17th + Harrison	3	T/C	499	499	OC	CC	60	58	17th + Harrison	7	Housing Opportunity Site DT-6
x 15th + Harrison	3		499	499	OC	CC	70	67	15th + Harrison	7	Housing Opportunity Site DT-4
x 13th + Madison	3	N	518	518	OC	CM	70	67	1309 and 1329 Madison	7	Housing Opportunity Site DT-31
x Channel Area	3		521	521	OC	CM	450	432	Oak/5th Ave/Embarcadero/12th St.	7	Housing Opportunity Site DT-11 (Peralta/City)
x Salvation Army	3	N	494	494	OC	CT	175	168	6th/7th/Franklin	7	Housing Opportunity Site DT-7
x Channel Area	3		87	87	OC	JLD	100	96	Oak/5th/Embarcadero/12th	7	Housing Opportunity Site DT-11
x Jack London Area (Meyers Plumbing site)	3		768	72	OC	JLD	90	86	2nd + Harrison	7	Housing Opportunity Site DT-43
Jack London Area Lofts (conversions or new constr)	3		796	72	OC	JLD	60	56	4th + Alice	7	
x Jack London Area (Monahan Paper site)	3		798	87	OC	JLD	135	130	175 2nd	7	Housing Opportunity Site DT-42
x Jack London Area (Miller Meat Sites)	3		798	87	OC	JLD	120	115	2nd / Alice to Jackson	7	Housing Opportunity Site DT-40
x Old Oakland/Rattos block	3		71	71	OC	OO	40	38	8th + Washington	7	Housing Opportunity Site DT-26
x 8th + Washington	3		71	71	OC	OO	40	38	8th + Washington	7	Housing Opportunity Site DT-15
x 901 Jefferson	3		491	491	OC	OO	82	79	Jefferson/9th/10th	5	Pre-application 2002; Housing Opportunity Site DT-5
x St. Mary's	3		492	492	OC	OO	75	72	MLK/7th/8th	7	Housing Opportunity Site DT-21
x 7th/Clay/Washington	3	N	493	493	OC	OO	80	77	7th/Washington/Clay	7	Housing Opportunity Site DT-36
xx Dones / Berkley Square Project	3	N	483	483	OC	UT	98	95	San Pablo/21st/20th	5	Predevelopment 2002; Housing Opportunity Site DT-27
xx Old Cathedral Site	3	N	483	483	OC	UT	100	96	20th/22nd/San Pablo	7	Housing Opportunity Site DT-19
Former Sears - Phase II	3		469	469	OC	VSA	200	190	27th & Telegraph	7	Housing Opportunity Site DT-8
x Telegraph Gateway 2	3	N	468	468	OC	VSA	74	71	24th + Telegraph	7	Housing Opportunity Site DT-22
Grand + Webster	3		504	504	OC	VSA	200	190	Valdez + 23rd St. + Webster	7	Housing Opportunity Site DT-9 (Westmark Labor Temple)
x 24th + Webster	3	N	504	504	OC	VSA	120	115	24th/Webster/Valdez	7	Housing Opportunity Site DT-10
x West Coast Properties	3	N	504	504	OC	VSA	140	134	23rd/24th/Valdez/Waverly	7	Housing Opportunity Site DT-3
<b>PROJECTS TO BE COMPLETED 2010 - 2020 TOTAL</b>							<b>2,719</b>	<b>2,607</b>			
<b>PROJECTS TO BE COMPLETED 2020 - 2025</b>											
x Merchants Garage	4	N	497	497	OC	CC	180	173	1314 Franklin St.	7	Housing Opportunity Site DT-34
x Cochran and Cell site	4	N	498	498	OC	CC	200	192	12th + Harrison	7	Housing Opportunity Site DT-13
x Post Office Parking	4	N	518	518	OC	CM	140	134	13th/14th/Jackson/Alice	7	Housing Opportunity Site DT-24
x BART - Lake Merritt	4	N	520	520	OC	CM	200	192	8th/9th/Fallon/Oak	7	Housing Opportunity Site DT-23

Uptown Proj Lists - DELIVERABLE.xls/HspjndT (rev. 6/9/03)

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/a/	Project	Time Period	Change /b/	Oak TAZ	CMA TAZ	Planning District	OC/DT Subarea	Units	House Holds /c/	Location	Status /d/	Comments/Status /e/
x	Channel Area	4	N	521	521	OC	CM	250	240	Oak/5th Ave./Embarcadere/12th St.	7	Housing Opportunity Site DT-11
x	Broadway + 7th	4	N	494	494	OC	CT	60	58	7th/8th/Broadway	7	Housing Opportunity Site DT-16
	Jack London Area Lofts (Mid-Block Parking)	4		788	72	OC	JLD	60	58	2nd to 3rd / Webster to Harrison	7	Housing Opportunity Site DT-41
x	Jack London Area	4		798	87	OC	JLD	75	72	2nd to 3rd / Oak to Madison	7	
x	Flower Warehouse	4	C	491	491	OC	OO	80	77	8th + Jefferson	7	Housing Opportunity Site DT-38
x	Mexicali Rose	4	N	492	492	OC	OO	100	96	7th/8th/Clay	7	Housing Opportunity Site DT-37
x	Greyhound Site	4		803	69	OC	UT	80	77	San Pablo/Telegraph/21st/19th	7	Housing Opportunity Site DT-20
x	Valdez Area	4	N	504	504	OC	VSA	250	240	24th/27th/Valdez	7	Housing Opportunity Site DT-12
x	Valdez Area	4	N	504	504	OC	VSA	350	336	23rd/24th/Waverly/Harrison	7	Housing Opportunity Site DT-18
x	27th + Broadway	4	N	504	504	OC	VSA	100	96	26th/27th/Broadway	7	Housing Opportunity Site DT-35
<b>PROJECTS TO BE COMPLETED 2020 - 2025 TOTAL</b>								<b>2,125</b>	<b>2,041</b>			
<b>TOTAL 2000 - 2025</b>								<b>10,850</b>	<b>9,341</b>			

Notes:  
/a/ 'X' in first column indicates updated assumptions compared to original 11/21/00 Cumulative Scenario. 'XX' indicates updated assumptions for Uptown Project EIR, May 2003.  
/b/ Codes indicate change made for CMA/ASAC P2002 inputs, since 12/02 Scenario for West Oakland Redevelopment Project EIR. C = change in number of units and/or number of households. N = new project added to list. T = change in time period assumed for development and occupancy.  
/c/ Households equal units multiplied by an assumed vacancy factor.  
/d/ Status as of the end of 2002: 1 = completed; 2 = under construction; 3 = approved; 4 = affordable housing project in predevelopment; 5 = other projects in predevelopment; 6 = in planning or part of existing plan; 7 = other housing opportunity site.  
/e/ Housing Opportunity Sites are those identified in Oakland's Draft Housing Element (September 2002). The numbers (e.g., DT-11) are those used in Housing Element tables.  
/f/ YWCA housing for CCC students, Perkins Residential Care housing for people with Alzheimer's, and UC Berkeley student housing are treated as group quarters in the growth scenario.  
/g/ The total units completed during 2000 were 283 for Acorn Parcels 1, 2, and 3, and 71 for Bayporte Village, replacing 480 and 196 original units, respectively, that were removed by 2000.  
/h/ Includes additional housing units and households in the downtown and rest of Oakland Central (OC) planning district as well as along the channel in TAZ 537 (SA).

Source: City of Oakland, Hausrath Economics Group

OAKLAND CUMULATIVE GROWTH SCENARIO ASSUMPTIONS FOR COMMERCIAL/INDUSTRIAL PROJECTS IN DOWNTOWN / OAKLAND CENTRAL UPTOWN PROJECT EIR - JUNE 2003												
/a/	Project	Time Period	Oakland TAZ	CMA TAZ	Planning District	Subarea	Sq. Ft.	Emps	SF/Emp	Location	Comments	
<b>PROJECTS COMPLETED 1990 - 2000</b>												
	City Administration - Wilson Building (office)		486	486	OC	CC	165,430	414	400	14th + Broadway		
x	City Administration - Wilson Building (retail)		486	486	OC	CC	4,000	10	400	14th + Broadway		
	City Administration - Datzel Building (office only)		487	487	OC	CC	225,710	564	400	Frank Ogawa Plaza		
	City Hall		487	487	OC	CC	80,000	200	400	Frank Ogawa Plaza		
	State Building		488	488	OC	CC	600,000	1,500	400	Clay Street		
	Federal Building		489	489	OC	CC	1,000,000	2,500	400	Clay/12th/14th/Jefferson		
	1111 Broadway		490	490	OC	CC	535,000	1,783	300	1111 Broadway		
	UC Office of the President		497	497	OC	CC	232,500	1,000		Franklin/11th to 12th		
	Tribune Tower		497	497	OC	CC	89,000	297	300	13th + Franklin		
	New County Building		519	519	OC	CM		334		Madison + 11th		
x	115 Broadway Office		767	72	OC	JLD	10,000	29	350	115 Broadway		
x	Kimball's Salina Club		767	72	OC	JLD	10,000	29	350	mid-blk 2nd/3rd near Washington		
x	Upper Floor Entertainment & Adnl Retail/Restaurant (infill)		796	72	OC	JLD	12,000	32	378	Broadway		
x	415 20th Street (LBL Supercomputer)		74	74	OC	KC	70,000	140	500	415 20th Street		
	Caltrans Building		503	503	OC	KC		1,180		Grand/ Webster		
	Warriors Practice Facility		71	71	OC	OO	60,000	20		530 10th Street		
x	Washington & 8th Street (renovation)		71	71	OC	OO	65,000	60		Washington + 8th		
x	Swan's Market		71	71	OC	OO				8th/10th/Clay/Washington		
x	Office		71	71	OC	OO	17,000	49	350			
x	Retail		71	71	OC	OO	25,000	55	450			
x	Ratons + others in area (renovations)		71	71	OC	OO		80		Washington		
	Oakland Ice Center		70	70	OC	UT		35		18th + San Pablo		
x	L. Magrin Building (renovation)		484	484	OC	UT	63,000	210	300	20th + Broadway		
x	Sweets Ballroom - Supper Club		485	485	OC	UT	12,000	15	600	Broadway/19th to 20th		
x	Rehabs/Infill for office 17th-19th Blk		485	485	OC	UT		100		17th-19th/Broadway to Telegraph		
<b>PROJECTS TO BE COMPLETED 2000 - 2005</b>												
	Rolunda Building	1	486	486	OC	CC				18th + Broadway	Completed	
	Office	1	486	486	OC	CC	187,000	534	350			
	Retail	1	486	486	OC	CC	50,000	111	450			
	17th Street Parking Garage (retail - 500 spaces)	1	486	486	OC	CC	23,000	51	450	16th/17th/San Pablo	Approved	
x	City Administration - Wilson Building (retail)	1	486	486	OC	CC	12,800	32	400	Broadway + 14th		
	Lathan Square Building (renovation)	1	486	486	OC	CC	107,000	122		Telegraph + Broadway	Assumes +/- 40%; completed	
	City Administration - Datzel Building (retail)	1	487	487	OC	CC	20,000	44	455	250 Frank Ogawa Plaza		
	Plaza Building	1	487	487	OC	CC	13,000	43	300	Frank Ogawa Plaza	Completed	
	518 17th Street (renovation)	1	488	488	OC	CC	32,000	98	325	518 17th St		
	Old PG&E Building (renovation)	1	488	488	OC	CC	37,685	116	325	Clay + 17th	Completed	
	Shorenstein T9 / 555 City Center	1	489	489	OC	CC				11th to 12th/Clay to Jefferson	Completed 2002	
	Office	1	489	489	OC	CC	472,500	1,575	300			
	Retail	1	489	489	OC	CC	7,500	26	300			

TAZ	Project	Time Period	Oakland TAZ	CMA TAZ	Planning District	Subarea	Sq. Ft.	Empls	SF/Emp	Location	Comments
	Keystone Hotel/Hilton Gardens	1	497	497	OC	CC	214 rooms	140	0.65/m	11th/12th/Broadway	Approved
	13th and Broadway/Utility Building (renovation)	1	497	497	OC	CC	60,000	200	300	13th + Broadway	Underway / on hold
xx	Oakland Athletic Club - renovation to office	1	499	499	OC	CC	85,500	263	325	1438 Webster	Under construction 2002/03
	1404 Franklin (renovation)	1	500	500	OC	CC	50,000	43		1404 Franklin	
	1111 Jackson (former State Building)	1	519	519	OC	CM	150,000	500	300	1111 Jefferson	Completed
	Courtyard Marriott Hotel	1	496	496	OC	CT	150 rooms	75	0.5/m	9th & Broadway	Completed
	Artiso Mixed Use	1	496	496	OC	CT	5,800	25		900 Broadway/9th	Commercial/B8 units; under construction
	Waterfront Plaza Hotel Expansion (incl. 3,100 s.f. center)	1	72	72	OC	JLD	63 rooms	47	0.75/m	Jack London Square	Approved
xx	Meadow Commercial (Site C)	1	72	72	OC	JLD				Jack London Square	Predevelopment 2002/2003
xx	Office	1	72	72	OC	JLD	16,000	53	300		
xx	Restaurant	1	72	72	OC	JLD	32,000	160	200		
	Remove Jack London Village	1	736	72	OC	JLD		(81)		Waterfront JLS	Demolition for upcoming new construction
x	Jack London Cinema (seat reduction for stadium seating)	1	767	72	OC	JLD		(5)		Washington/2nd to 3rd	Seats reduced from 2,000 to 1,500; completed
x	Oak Tree Commercial - retail/restaurant/entertainment	1	768	72	OC	JLD	10,000	33	300	Along Embarcadero	Reuse
x	3rd & Broadway Mixed Use (Roscoe's site)	1	768	72	OC	JLD				3rd + Broadway	Approved 2002; Also includes 115 dwelling units
x	Office	1	768	72	OC	JLD	58,000	193	325		
x	Retail/Restaurant	1	768	72	OC	JLD	11,000	40	275		
x	Terranomics - office (conversion and new)	1	795	72	OC	JLD	31,000	78	400	Clay/3rd to 4th	Constructed but not fully occupied 2002; removes II, Industrial
x	Terranomics - Iguana AmeriMex Conversions	1	795	72	OC	JLD					
x	Additional Office	1	795	72	OC	JLD	20,000	57	350	4th/Jefferson/3rd/MLK	Partially converted but not fully occupied 2002
x	Reduced Retail	1	795	72	OC	JLD	(21,000)	(27)		4th/Jefferson/3rd/MLK	
x	Conversion to office	1	795	72	OC	JLD	10,587	35	300	4th + Washington	Government office replaces auto repair use; completed
x	Allegro Housing	1	797	87	OC	JLD	8,500	23	375	3rd and Jackson (2 blocks)	Completed 2001 (13,500 s.f. total commercial)
x	Sierra (former Dreyers)	1	797	87	OC	JLD	16,000	43	375	3rd to 4th / Oak to Madison	Under construction 2002
	New Market Lofts (former Safeway) Housing	1	797	87	OC	JLD					Completed
	Office	1	797	87	OC	JLD	6,500	19	325	4th and Jackson	Ground floor commercial; completed 2002
	Retail/Commercial	1	797	87	OC	JLD	4,500	15	300	4th and Jackson	Ground floor commercial; completed 2002
x	Allegro Housing	1	798	87	OC	JLD	5,000	13	375	2nd to 3rd / Jackson to Madison	Completed 2001 (13,500 s.f. total commercial)
	Telecommunications Access Facility/Mortenson	1	801	481	OC	JLD	120,000	50		3rd/Brush to Castro	Completed
x	Wakefield Rehab (renovation)	1	74	74	OC	KC	68,000	194	350	17th St. / Broadway to Franklin	Renovation underway in 2000; occupied after 2000
xx	20th & Broadway Renovation	1	502	502	OC	KC		200		20th + Broadway	Renovation of existing bank bldg; completed 2002
	Housewares Market	1	491	491	OC	OO	27,500	78	350	8th/9th/Clay/Jefferson	Ground floor commercial; approved
x	Renovations for Office / Ice Center Block	1	70	70	OC	UT	36,000	110	325	510 17th St., 1727 Telegraph, etc.	Completed but not fully occupied; 2002/03
x	Sears Building (upper floor office renovation)	1	485	485	OC	UT	180,000	514	350	20th + Broadway	Completed
xx	Floral Depot Block - rehabs to office/commercial/educational	1	485	485	OC	UT	-25,000	71	350	19th / Broadway to Telegraph	
x	Telegraph Gateway	1	469	469	OC	VSA	5,300	14	375	2401 Telegraph	Ground floor commercial; approved
<b>PROJECTS TO BE COMPLETED 2006 - 2010</b>											
xx	New Police Headquarters / Center	2	488	488	OC	CC	200,000	850		14th/16th/Jefferson/MLK	Moves from current location on Broadway + 7th
	Shorenstein T5/T6	2	490	490	OC	CC				11th/12th/Clay	Approved
	Office	2	490	490	OC	CC	580,000	1,933	300		
	Retail	2	490	490	OC	CC	7,500	25	300		
	14th & Harrison Project	2	498	498	OC	CC	9,000	23	400	14th + Harrison	Ground floor commercial; predevelopment
	1640 Broadway Mixed Use	2	500	500	OC	CC				1640 Broadway	Approved
	Office	2	500	500	OC	CC	177,680	592	300		

TAZ	Project	Time Period	Oakland TAZ	CMA TAZ	Planning District	Subarea	Sq. Ft.	Empls	SF/Emp	Location	Comments
	Retail	2	500	500	OC	CC	5,400	18	300		
xx	Jackson Center/ Two	2	519	519	OC	CM	350,000	1,167	300	11th/12th/Alice St.	Predevelopment 2002/2003
xx	Embarcadero & Broadway (Site D)	2	72	72	OC	JLD				Embarcadero + Broadway	Predevelopment 2002/2003
xx	Office	2	72	72	OC	JLD	102,000	339	300		
xx	Retail/entertainment	2	72	72	OC	JLD	71,000	158	450		
xx	Cinema	2	72	72	OC	JLD	1700 seats	27			
	Intensification	2	72	72	OC	JLD		81		Along Water St. and Washington St.	Additional retail / restaurant activity
xx	Site F1 - JLS Phase 2 Area	2	736	72	OC	JLD					Variant 1; predevelopment 2002/03
xx	Office	2	736	72	OC	JLD	134,000	446	300		
xx	Retail	2	736	72	OC	JLD	88,000	198	450		
xx	Restaurant	2	736	72	OC	JLD	33,000	165	200		
xx	Retail/Restaurant	2	736	72	OC	JLD	12,000	34	350		
xx	Site F3 - JLS Phase 2 Area	2	736	72	OC	JLD					Variant 0; predevelopment 2002/03
xx	Hotel	2	736	72	OC	JLD	250 rooms	213	0.85/m		
xx	Restaurant/Retail	2	736	72	OC	JLD	10,000	39	250		
x	Union Machine Works - retail/off-price retail	2	767	72	OC	JLD	25,000	63	400	2nd/Clay	Adaptive reuse; could convert to office or residential instead
x	Terranomics - retail expansion	2	767	72	OC	JLD	16,000	40	400	3rd/Jefferson	Expansion into parking lot behind
xx	Amtrak Station (Site G)	2	768	72	OC	JLD				Embarcadero/Alice/2nd	Predevelopment 2002/2003
xx	Supermarket	2	768	72	OC	JLD	40,000	67	600		
xx	Parking garage and residential	2	768	72	OC	JLD		13			
x	Office conversion/rehab	2	796	72	OC	JLD	12,000	34	350	4th / Harrison to Alice	Intensification of use in existing space
x	Wheelink Residential - ground floor office	2	797	87	OC	JLD	9,800	30	325	428 Alice	Approved
xx	Bermuda Building	2	502	502	OC	KC	160,000	533	300	21st & Franklin	
xx	20th & Broadway	2	502	502	OC	KC				20th + Broadway	
xx	Office (new)	2	502	502	OC	KC	325,000	1,083	300		Approved
xx	Ground floor retail (new)	2	502	502	OC	KC	11,500	29	400		Approved
xx	Lake Merritt Tower II	2	503	503	OC	KC	700,000	2,333	300	Harrison + Grand	Approved
xx	Cox Cadillac Mixed Use	2	505	505	OC	LGA	11,500	29	400	Harrison + Bay Place	Approved
xx	Grand Ave. Office	2	776	516	OC	LGA	25,000	83	300		
xx	Old Oakland (Infill)	2	71		OC	OO		100			
xx	Uptown project / ground floor commercial	2	70	70	OC	UT	22,000	63	350	Telegraph / 19th to 20th	Predevelopment 2002/2003
xx	Uptown project / residential and parking maint. + mgmt	2	70	70	OC	UT		33		Telegraph/San Pablo/18th/20th	Predevelopment 2002/2003
xx	Fox Theater (renovation)	2	70	70	OC	UT				Telegraph / 18th to 19th	In planning 2002/2003
xx	Cabaret (-650 seats)	2	70	70	OC	UT		40			
xx	Retail/commercial (side bldgs - ground floor)	2	70	70	OC	UT	18,000	51	350		
xx	Office (side bldgs - upper floors)	2	70	70	OC	UT	30,100	93	325		
xx	Berkley Square Project / County Building	2	483	483	OC	UT	111,000	350	Avg. 317	San Pablo / 20th to 21st	Includes office, public service, child care, and ground floor commercial uses; predevelopment 2002/2003
xx	Uptown / U.C. Housing - ground floor commercial	2	483	483	OC	UT	11,000	31	350	Telegraph/20th/21st	Predevelopment 2002/2003
xx	Uptown / U.C. Housing - maint. + mgmt	2	483	483	OC	UT		30		Telegraph/20th/21st	Predevelopment 2002/2003
xx	Relocated Sears Auto Center	2	484	484	OC	UT	10,000	25		Telegraph/20th to 22nd	Predevelopment 2002/2003; to be relocated from TAZ 70
xx	Floral Depot Block - rehabs to office/commercial/educational	2	485	485	OC	UT	-35,000	100	350	19th / Broadway to Telegraph	
xx	Additional Infill / Rehab 17th-19th Blk	2	485	485	OC	UT		70		Broadway to Telegraph / 17th to 19th	
<b>PROJECTS TO BE COMPLETED 2010 - 2020/2025</b>											

/a/	Project	Time Period	Oakland TAZ	CMA TAZ	Planning District	Subarea	Sq. Ft.	Empls	SF/Emp	Location	Comments
	Shorenstein T12	3	489	489	OC	CC	584,000	1,947	300	11th/12th/Jefferson/MLK	
	Additional Tribune Building and others (infill)	3	497	497	OC	CC		457			
	Intensification	3	72	72	OC	JLD		33			Additional upper floor office uses
	Lower Broadway (reuse and/or new development)	3	767	72	OC	JLD					Removes some existing uses/space
	Office	3	767	72	OC	JLD	120,000	369	325		Allocated to TAZ 767 although could be TAZ 795
	Retail/entertainment/restaurant	3	767	72	OC	JLD	25,000	63	400		Allocated to TAZ 767 although could be TAZ 795
	Rehab and/or intensification	3	767	72	OC	JLD				2nd to 3rd / Jefferson to MLK	Marcus Hardware, Griffco, and nearby bldgs
	Retail	3	767	72	OC	JLD	5,000	13	400		Could be intensification of existing space
	Office	3	767	72	OC	JLD	5,000	15	325		
x	Mixed Use - Meyers Plumbing site / office/commercial	3	768	72	OC	JLD	20,000	67	300	2nd/Harrison to Embarcadero	Replaces lt. ind.; ground floor commercial/office
	Conversions - Produce District Bldgs - office/retail/restaurant	3	768	72	OC	JLD	75,000	214	350		Replaces lt. ind.; adds parking
x	Office development (Oak Tree commercial site)	3	768	72	OC	JLD	40,000	123	325	Embarcadero to 2nd / Webster to Franklin	Redevelopment - mid-block area
x	Terranomics - additional offices	3	795	72	OC	JLD	40,000	114	350	3rd to 4th / Jefferson to MLK	Additional conversions/new
x	Office intensification	3	795	72	OC	JLD		33		Clay / 3rd to 4th	Intensification of use in existing space
	Conversions - Produce District Bldgs - office/retail/restaurant	3	796	72	OC	JLD	70,000	200	350		Replaces lt. ind.; adds parking
x	Commercial/office expansion/new	3	797	87	OC	JLD	20,000	57	350	4th + Jackson	Replaces light industrial
x	Commercial/office infill	3	797	87	OC	JLD	15,000	43	350	4th / Madison to Oak	Replaces industrial over longer term
x	Monahan Paper Mixed Use - office/commercial	3	798	87	OC	JLD	20,000	62	325	2nd / Jackson to Madison	Replaces industrial use
x	Office/comm in mixed-use development - Miller Meat sites	3	798	87	OC	JLD	40,000	123	325	2nd / Alice to Jackson	Replaces industrial
x	Mixed use development/office/light industrial	3	798	87	OC	JLD	50,000	143	350	2nd to 3rd / Madison to Oak	Replaces industrial
	Conversions / new development for office/commercial use	3	800	481	OC	JLD	60,000	172	350		Replaces light industrial (-74 jobs) Variant 3; Replaces existing Barnes & Noble bldg; Predevelopment 2002/2003
xx	Pavilion 2 (Barnes and Noble site)	3	736	736	OC	JLD					
xx	Retail	3	736	736	OC	JLD	105,000	233	450		
xx	Restaurant	3	736	736	OC	JLD	15,000	75	2,000		
xx	Water 1 Expansion	3	736	736	OC	JLD					Replaces bldgs in front of Scott's; Predevelopment 2002/2003
xx	Restaurant	3	736	736	OC	JLD	8,000	40	200		
xx	Retail	3	736	736	OC	JLD	20,000	57	350		
xx	Banquet	3	736	736	OC	JLD	12,000	12	1,000		
xx	66 Franklin	3	736	736	OC	JLD					Variant 1; replaces existing bldg.
xx	Office	3	736	736	OC	JLD	109,500	384	300		
xx	Retail/Restaurant	3	736	736	OC	JLD	72,000	206	350		
xx	Site F2 - JLS Phase 2 Area	3	736	736	OC	JLD					Variant 4; Predevelopment 2002/2003
xx	Office	3	736	736	OC	JLD	92,000	306	300		
xx	Retail/Restaurant	3	736	736	OC	JLD	15,000	43	350		
xx	Parking garage	3	736	736	OC	JLD		8			
xx	Old Oakland (infill)	3	71	71	OC	OO		100			
xx	Additional infill / renovations	3	70	70	OC	UT	20,000	72	325	Telegraph / 17th to 18th	
	Additional infill	3	483	483	OC	UT		70			
xx	Office development (police headquarters site)	3	483	483	OC	UT	200,000	667	300	Broadway + 7th	New office building on police headquarters site; could also be mixed use development
	Additional infill/rehab	3	484	484	OC	UT		110			
	Additional infill/rehab	3	485	485	OC	UT		285			

Notes:

/a/ 'x' in first column indicates updated assumptions compared to original 11/21/00 Cumulative Scenario. 'xx' indicates updated assumptions for Uptown Project EIR, May 2003.

Source: City of Oakland; Port of Oakland; Hausrath Economics Group

LEVEL OF SERVICE CALCULATION WORKSHEETS  
EXISTING CONDITIONS

Uptown Project Traffic Impact Analysis  
Existing Conditions AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #1 San Pablo Ave./ 31st St.

Cycle (sec): 75 Critical Vol./Cap. (X): 0.221  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 9.1  
Optimal Cycle: 75 Level Of Service: A

Table with 4 columns: Approach, Movement, Control, Rights. Rows include North Bound, South Bound, East Bound, West Bound movements and their respective controls and rights.

Volume Module: >> Count Date: 9 Jul 2003 <<. Table showing traffic volume, growth adjustments, initial base, user adjustments, PHF, and reduced volumes for each approach.

Saturation Flow Module: Table showing saturation flow rates, lane adjustments, and final saturation values for each approach.

Capacity Analysis Module: Table showing volume per saturation, critical moves, green/cycle, volume/capacity, delay/vehicle, and user delay/vehicle for each approach.

Uptown Project Traffic Impact Analysis  
Existing Conditions AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #2 San Pablo Ave./ Market St.

Cycle (sec): 75 Critical Vol./Cap. (X): 0.275  
Loss Time (sec): 8 (Y+R = 10 sec) Average Delay (sec/veh): 9.2  
Optimal Cycle: 73 Level Of Service: A

Table with 4 columns: Approach, Movement, Control, Rights. Rows include North Bound, South Bound, East Bound, West Bound movements and their respective controls and rights.

Volume Module: >> Count Date: 9 Jul 2003 <<. Table showing traffic volume, growth adjustments, initial base, user adjustments, PHF, and reduced volumes for each approach.

Saturation Flow Module: Table showing saturation flow rates, lane adjustments, and final saturation values for each approach.

Capacity Analysis Module: Table showing volume per saturation, critical moves, green/cycle, volume/capacity, delay/vehicle, and user delay/vehicle for each approach.

Uptown Project Traffic Impact Analysis  
Existing Conditions AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*  
Intersection #3 San Pablo Ave. / 27th  
\*\*\*\*\*

Cycle (sec): 75 Critical Vol./Cap. (X): 0.248  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 9.6  
Optimal Cycle: 75 Level Of Service: A

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	45	0	0	45	0	0	22	0	0	22	0
Lanes:	0	1	0	1	0	1	0	0	1	1	0	1

Volume Module: >> Count Date: 1 Jan 2003 <<

Base Vol:	19	413	7	119	611	3	1	21	24	32	12	110
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	19	413	7	119	611	3	1	21	24	32	12	110
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	21	459	8	132	679	3	1	23	27	36	13	122
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	459	8	132	679	3	1	23	27	36	13	122
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	21	459	8	132	679	3	1	23	27	36	13	122

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.87	0.87	0.87	0.46	0.95	0.95	0.83	0.83	0.83	0.79	1.00	0.85
Lanes:	0.09	1.88	0.03	1.00	1.99	0.01	0.02	0.46	0.52	1.00	1.00	1.00
Final Sat.:	143	3098	53	874	3589	18	34	717	819	1495	1900	1615

Capacity Analysis Module:

Vol/Sat:	0.15	0.15	0.15	0.15	0.19	0.19	0.03	0.03	0.03	0.02	0.01	0.08
Crit Moves:	****			****			****			****		
Green/Cycle:	0.60	0.60	0.60	0.60	0.60	0.60	0.29	0.29	0.29	0.29	0.29	0.29
Volume/Cap:	0.25	0.25	0.25	0.25	0.32	0.32	0.11	0.11	0.11	0.08	0.02	0.26
Delay/Veh:	7.3	7.3	7.3	8.2	7.8	7.8	19.8	19.8	19.8	19.5	18.9	21.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	7.3	7.3	7.3	8.2	7.8	7.8	19.8	19.8	19.8	19.5	18.9	21.6
DesignQueue:	0	8	0	2	12	0	0	1	1	1	0	4

Uptown Project Traffic Impact Analysis  
Existing Conditions AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

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Intersection #4 San Pablo Ave./ West St.  
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Cycle (sec): 80 Critical Vol./Cap. (X): 0.220  
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 18.3  
Optimal Cycle: 79 Level Of Service: B

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	30	0	0	30	0	20	20	20	17	0	17
Lanes:	0	1	0	1	0	1	0	0	1	1	0	0

Volume Module: >> Count Date: 9 Jul 2003 <<

Base Vol:	0	358	66	12	426	0	8	1	2	30	0	7
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	358	66	12	426	0	8	1	2	30	0	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	0	394	73	13	469	0	9	1	2	33	0	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	394	73	13	469	0	9	1	2	33	0	8
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	394	73	13	469	0	9	1	2	33	0	8

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.84	0.84	0.80	0.80	0.95	0.68	0.68	0.68	0.95	1.00	0.68
Lanes:	0.00	1.69	0.31	0.05	1.95	0.00	0.73	0.09	0.18	1.00	0.00	1.00
Final Sat.:	0	2680	494	83	2955	0	933	117	233	1805	0	1292

Capacity Analysis Module:

Vol/Sat:	0.00	0.15	0.15	0.16	0.16	0.00	0.01	0.01	0.01	0.02	0.00	0.01
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.39	0.39	0.39	0.39	0.00	0.25	0.25	0.25	0.21	0.00	0.21
Volume/Cap:	0.00	0.38	0.38	0.41	0.41	0.00	0.04	0.04	0.04	0.09	0.00	0.03
Delay/Veh:	0.0	17.8	17.8	18.1	18.1	0.0	22.8	22.8	22.8	25.4	0.0	25.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	17.8	17.8	18.1	18.1	0.0	22.8	22.8	22.8	25.4	0.0	25.0
DesignQueue:	0	11	2	0	13	0	0	0	0	1	0	0

Uptown Project Traffic Impact Analysis  
Existing Conditions AM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #5 San Pablo Ave./ Grand Ave

Cycle (sec): 80 Critical Vol./Cap. (X): 0.416  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 15.2  
Optimal Cycle: 80 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 35 0 0 35 0 0 37 0 0 37 0  
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 2 0 1 0 1 1 0 1

Volume Module:  
Base Vol: 56 306 29 91 377 10 6 442 35 8 747 44  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 56 306 29 91 377 10 6 442 35 8 747 44  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 62 340 32 101 419 11 7 491 39 9 830 49  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 62 340 32 101 419 11 7 491 39 9 830 49  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 62 340 32 101 419 11 7 491 39 9 830 49

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.46 0.87 0.87 0.51 0.88 0.88 0.24 0.95 0.72 0.90 0.90 0.72  
Lanes: 1.00 1.83 0.17 1.00 1.95 0.05 1.00 2.00 1.00 0.02 1.98 1.00  
Final Sat.: 880 3011 285 963 3240 86 462 3610 1373 36 3390 1373

Capacity Analysis Module:  
Vol/Sat: 0.07 0.11 0.11 0.10 0.13 0.13 0.01 0.14 0.03 0.24 0.24 0.04  
Crit Moves: \*\*\*\*\*  
Green/Cycle: 0.44 0.44 0.44 0.44 0.44 0.46 0.46 0.46 0.46 0.46 0.46 0.46  
Volume/Cap: 0.16 0.26 0.26 0.24 0.30 0.30 0.03 0.29 0.06 0.53 0.53 0.08  
Delay/Veh: 14.5 14.7 14.7 15.5 15.1 15.1 12.0 13.8 12.1 16.6 16.6 12.2  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 14.5 14.7 14.7 15.5 15.1 15.1 12.0 13.8 12.1 16.6 16.6 12.2  
DesignQueue: 2 9 1 3 11 0 0 12 1 0 21 1

Uptown Project Traffic Impact Analysis  
Existing Conditions AM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #6 San Pablo Ave./ 20th St.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.151  
Loss Time (sec): 12 (Y+R = 25 sec) Average Delay (sec/veh): 16.5  
Optimal Cycle: 87 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Ignore Include Include  
Min. Green: 0 35 0 0 35 0 0 40 0 0 25 0  
Lanes: 1 0 1 1 0 1 0 2 0 1 0 1 0 1 0 0 1 0 1 0

Volume Module:  
Base Vol: 5 215 26 47 348 207 62 15 13 4 25 19  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 5 215 26 47 348 207 62 15 13 4 25 19  
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.84 0.84 0.84 0.93 0.93 0.00 0.87 0.87 0.87 0.71 0.71 0.71  
PHF Volume: 6 256 31 51 374 0 71 17 15 6 35 27  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 6 256 31 51 374 0 71 17 15 6 35 27  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 6 256 31 51 374 0 71 17 15 6 35 27

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.52 0.86 0.86 0.57 0.95 1.00 0.63 0.63 0.63 0.76 0.76 0.76  
Lanes: 1.00 1.78 0.22 1.00 2.00 1.00 1.00 0.54 0.46 0.17 1.04 0.79  
Final Sat.: 996 2931 354 1083 3610 1900 1195 640 555 241 1509 1147

Capacity Analysis Module:  
Vol/Sat: 0.01 0.09 0.09 0.05 0.10 0.00 0.06 0.03 0.03 0.02 0.02 0.02  
Crit Moves: \*\*\*\*\*  
Green/Cycle: 0.42 0.42 0.42 0.42 0.42 0.00 0.44 0.44 0.44 0.44 0.44 0.44  
Volume/Cap: 0.01 0.21 0.21 0.11 0.25 0.00 0.13 0.06 0.06 0.05 0.05 0.05  
Delay/Veh: 15.2 16.8 16.8 16.2 17.1 0.0 15.1 14.3 14.3 14.3 14.3 14.3  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 15.2 16.8 16.8 16.2 17.1 0.0 15.1 14.3 14.3 14.3 14.3 14.3  
DesignQueue: 0 8 1 1 11 0 2 0 0 0 1 1



Uptown Project Traffic Impact Analysis Existing Conditions AM Peak Hour

Level of Service Computation Report 1997 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 San Pablo/William St
Average Delay (sec/veh): 0.1 Worst Case Level Of Service: A
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 2 0 0 0 0 2 0 0 0 0 0 0 0 0 0 0 0 1
Volume Module:
Base Vol: 0 220 0 0 365 0 0 0 0 0 0 0 8
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 220 0 0 365 0 0 0 0 0 0 0 8
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 244 0 0 406 0 0 0 0 0 0 0 9
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 244 0 0 406 0 0 0 0 0 0 0 9
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 6.9
FollowUpTim:xxxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 3.3
Capacity Module:
Cnflct Vol: xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 122
Potent Cap.: xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 912
Move Cap.: xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 912
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 9.0
LOS by Move: \* A
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx
Shrd StpDel:xxxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx
Shared LOS: \*
ApproachDel: xxxxxx xxxxxx xxxxxx 9.0
ApproachLOS: \* \* \* \* \* A

Uptown Project Traffic Impact Analysis Existing Conditions AM Peak Hour

Level of Service Computation Report 1997 HCM Operations Method (Base Volume Alternative)

Intersection #8 San Pablo Ave./ 19th St.
Cycle (sec): 75 Critical Vol./Cap. (X): 0.226
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 19.6
Optimal Cycle: 62 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 25 0 0 25 0 0 12 0 0 25 0
Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 1 0 0
Volume Module:
Base Vol: 17 123 0 0 227 75 82 0 3 40 106 60
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 17 123 0 0 227 75 82 0 3 40 106 60
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 17 123 0 0 227 75 82 0 3 40 106 60
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 17 123 0 0 227 75 82 0 3 40 106 60
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 17 123 0 0 227 75 82 0 3 40 106 60
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.60 0.88 1.00 1.00 0.95 0.72 0.73 1.00 0.73 0.83 0.83 0.83
Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.96 0.00 0.04 0.39 1.03 0.58
Final Sat.: 1146 3339 0 0 3610 1373 1330 0 49 614 1626 921
Capacity Analysis Module:
Vol/Sat: 0.01 0.04 0.00 0.00 0.06 0.05 0.06 0.00 0.06 0.07 0.07 0.07
Crit Moves: \* \* \* \* \*
Green/Cycle: 0.33 0.33 0.00 0.00 0.33 0.33 0.17 0.00 0.17 0.33 0.33 0.33
Volume/Cap: 0.04 0.11 0.00 0.00 0.19 0.16 0.36 0.00 0.36 0.20 0.20 0.20
Delay/Veh: 17.1 17.5 0.0 0.0 18.1 18.4 31.4 0.0 31.4 18.2 18.2 18.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 17.1 17.5 0.0 0.0 18.1 18.4 31.4 0.0 31.4 18.2 18.2 18.2
DesignQueue: 0 3 0 0 6 2 3 0 0 1 3 2

Uptown Project Traffic Impact Analysis Existing Conditions AM Peak Hour

Level Of Service Computation Report 1997 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 San Pablo / 18th

Average Delay (sec/veh): 2.8 Worst Case Level Of Service: B

Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign Rights: Include Include Include Include Lanes: 0 0 1 1 0 0 1 1 0 0 0 0 1 0 0 0 0 1 0 0

Volume Module: Base Vol: 0 130 50 16 300 0 2 0 2 6 0 0 20 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 Initial Bse: 0 130 50 16 300 0 2 0 2 6 0 0 20 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 PHF Volume: 0 144 56 18 333 0 2 0 2 7 0 22 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 Final Vol.: 0 144 56 18 333 0 2 0 2 7 0 22

Critical Gap Module: Critical Gp:xxxxx xxxxx xxxxx 4.1 xxxxx xxxxx 7.5 xxxxx 6.9 7.5 xxxxx 6.9 FollowUpTim:xxxxx xxxxx xxxxx 2.2 xxxxx xxxxx 3.5 xxxxx 3.3 3.5 xxxxx 3.3

Capacity Module: Cnflct Vol: xxxxx xxxxx xxxxx 200 xxxxx xxxxx 387 xxxxx 82 319 xxxxx 100 Potent Cap.: xxxxx xxxxx xxxxx 1384 xxxxx xxxxx 536 xxxxx 941 599 xxxxx 943 Move Cap.: xxxxx xxxxx xxxxx 1384 xxxxx xxxxx 518 xxxxx 941 592 xxxxx 943

Level Of Service Module: Stopped Del:xxxxx xxxxx xxxxx 7.6 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx LOS by Move: \* \* \* A \* \* \* \* \* \* \* \* \* \* Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 668 xxxxx xxxxx 829 xxxxx Shrd StpDel:xxxxx xxxxx xxxxx 7.6 xxxxx xxxxx xxxxx 10.4 xxxxx xxxxx 9.5 xxxxx Shared LOS: \* \* \* A \* \* \* B \* \* \* A \* ApproachDel: xxxxxx xxxxxx 10.4 9.5 ApproachLOS: \* \* B A

Uptown Project Traffic Impact Analysis Existing Conditions AM Peak Hour

Level Of Service Computation Report 1997 HCM Operations Method (Base Volume Alternative)

Intersection #10 San Pablo Ave./ 17th St.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.319 Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 19.3 Optimal Cycle: 62 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Split Phase Split Phase Rights: Include Include Include Include Lanes: 0 10 0 0 0 25 0 0 25 0 0 0 0 0 0 0 0 0 1 0 1 1 0 1 2 0 1 0 0 1 0 1

Volume Module: Base Vol: 0 50 17 113 25 128 84 716 186 0 75 37 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 Initial Bse: 0 50 17 113 25 128 84 716 186 0 75 37 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 PHF Volume: 0 56 19 126 28 142 93 796 207 0 83 41 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 0 56 19 126 28 142 93 796 207 0 83 41 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 Final Vol.: 0 56 19 126 28 142 93 796 207 0 83 41

Saturation Flow Module: Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 Adjustment: 1.00 0.74 0.74 0.72 0.81 0.81 0.91 0.91 0.72 1.00 1.00 0.72 Lanes: 0.00 0.75 0.25 1.00 0.33 1.67 0.31 2.69 1.00 0.00 1.00 1.00 Final Sat.: 0 1044 355 1366 502 2570 542 4619 1373 0 1900 1373

Capacity Analysis Module: Vol/Sat: 0.00 0.05 0.05 0.09 0.06 0.06 0.17 0.17 0.15 0.00 0.04 0.03 Crit Moves: \*\*\*\* \* \* \* \* \* Green/Cycle: 0.00 0.31 0.31 0.31 0.31 0.31 0.43 0.43 0.43 0.00 0.11 0.11 Volume/Cap: 0.00 0.17 0.17 0.29 0.18 0.18 0.40 0.40 0.35 0.00 0.40 0.27 Delay/Veh: 0.0 20.8 20.8 22.6 20.4 20.4 16.3 16.3 17.0 0.0 38.9 37.2 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 AdjDel/Veh: 0.0 20.8 20.8 22.6 20.4 20.4 16.3 16.3 17.0 0.0 38.9 37.2 DesignQueue: 0 2 1 4 1 4 2 21 5 0 3 2

Uptown Project Traffic Impact Analysis  
Existing Conditions AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #11 Telegraph Ave./ W. Grand Ave.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.665  
Loss Time (sec): 12 (Y+R = 6 sec) Average Delay (sec/veh): 25.2  
Optimal Cycle: 53 Level Of Service: C

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Prot+Permit	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	6 20 0	0 20 0	0 15 0	0 15 0
Lanes:	1 0 1 1 0	1 0 1 1 0	1 0 1 1 0	1 0 1 1 0
Volume Module:				
Base Vol:	77 225 21	64 339 70	107 779 300	99 515 41
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	77 225 21	64 339 70	107 779 300	99 515 41
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.95 0.95 0.95	0.95 0.95 0.95	0.95 0.95 0.95	0.95 0.95 0.95
PHF Volume:	81 237 22	67 357 74	113 820 316	104 542 43
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	81 237 22	67 357 74	113 820 316	104 542 43
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	81 237 22	67 357 74	113 820 316	104 542 43
Saturation Flow Module:				
Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjustment:	0.49 0.87 0.87	0.59 0.86 0.86	0.35 0.84 0.84	0.18 0.87 0.87
Lanes:	1.00 1.83 0.17	1.00 1.66 0.34	1.00 1.44 0.56	1.00 1.85 0.15
Final Sat.:	934 3014 281	1112 2696 557	671 2310 889	346 3059 244
Capacity Analysis Module:				
Vol/Sat:	0.09 0.08 0.08	0.06 0.13 0.13	0.17 0.36 0.36	0.30 0.18 0.18
Crit Moves:	****	****	****	****
Green/Cycle:	0.43 0.43 0.43	0.33 0.33 0.33	0.37 0.37 0.37	0.37 0.37 0.37
Volume/Cap:	0.20 0.18 0.18	0.18 0.40 0.40	0.46 0.97 0.97	0.82 0.48 0.48
Delay/Veh:	10.6 10.5 10.5	14.4 15.6 15.6	15.8 37.7 37.7	50.3 14.9 14.9
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	10.6 10.5 10.5	14.4 15.6 15.6	15.8 37.7 37.7	50.3 14.9 14.9
DesignQueue:	2 5 0	2 8 2	2 19 7	2 12 1

Uptown Project Traffic Impact Analysis  
Existing Conditions AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #12 Telegraph Ave./ 20th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.325  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 11.7  
Optimal Cycle: 47 Level Of Service: B

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0 17 0	0 17 0	0 22 0	0 22 0
Lanes:	0 1 1 0 1	1 0 1 1 0	0 1 0 1 0	0 1 0 1 0
Volume Module:				
Base Vol:	25 313 26	197 419 73	15 66 34	60 148 77
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	25 313 26	197 419 73	15 66 34	60 148 77
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.93 0.93 0.93	0.94 0.94 0.94	0.90 0.90 0.90	0.93 0.93 0.93
PHF Volume:	27 337 28	210 446 78	17 73 38	65 159 83
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	27 337 28	210 446 78	17 73 38	65 159 83
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	27 337 28	210 446 78	17 73 38	65 159 83
Saturation Flow Module:				
Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjustment:	0.85 0.85 0.72	0.53 0.86 0.86	0.76 0.76 0.76	0.74 0.74 0.74
Lanes:	0.15 1.85 1.00	1.00 1.70 0.30	0.26 1.15 0.59	0.42 1.04 0.54
Final Sat.:	239 2992 1373	1015 2781 485	376 1656 853	591 1457 758
Capacity Analysis Module:				
Vol/Sat:	0.11 0.11 0.02	0.21 0.16 0.16	0.04 0.04 0.04	0.11 0.11 0.11
Crit Moves:	****	****	****	****
Green/Cycle:	0.36 0.36 0.36	0.36 0.36 0.36	0.47 0.47 0.47	0.47 0.47 0.47
Volume/Cap:	0.31 0.31 0.06	0.57 0.44 0.44	0.09 0.09 0.09	0.23 0.23 0.23
Delay/Veh:	11.5 11.5 10.0	18.4 12.6 12.6	7.1 7.1 7.1	7.9 7.9 7.9
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	11.5 11.5 10.0	18.4 12.6 12.6	7.1 7.1 7.1	7.9 7.9 7.9
DesignQueue:	0 6 0	4 8 1	0 1 1	1 2 1

Uptown Project Traffic Impact Analysis  
Existing Conditions AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #13 Telegraph / William St

Cycle (sec): 45 Critical Vol./Cap. (X): 0.202  
Loss Time (sec): 4 (Y+R = 4 sec) Average Delay (sec/veh): 2.7  
Optimal Cycle: 14 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 10 0 10 0 0 0 0  
Lanes: 0 1 1 0 0 0 0 1 1 0 0 0 0 0 0

Volume Module:  
Base Vol: 34 370 0 0 350 172 1 0 1 0 0 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 34 370 0 0 350 172 1 0 1 0 0 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 38 411 0 0 389 191 1 0 1 0 0 0  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 38 411 0 0 389 191 1 0 1 0 0 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 38 411 0 0 389 191 1 0 1 0 0 0

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.79 0.79 1.00 1.00 0.84 0.84 0.77 1.00 0.77 1.00 1.00 1.00  
Lanes: 0.17 1.83 0.00 0.00 1.34 0.66 0.50 0.00 0.50 0.00 0.00 0.00  
Final Sat.: 252 2746 0 0 2129 1046 733 0 733 0 0 0

Capacity Analysis Module:  
Vol/Sat: 0.15 0.15 0.00 0.00 0.18 0.18 0.00 0.00 0.00 0.00 0.00 0.00  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.69 0.69 0.00 0.00 0.69 0.69 0.22 0.00 0.22 0.00 0.00 0.00  
Volume/Cap: 0.22 0.22 0.00 0.00 0.27 0.27 0.01 0.00 0.01 0.00 0.00 0.00  
Delay/Veh: 2.6 2.6 0.0 0.0 2.7 2.7 13.6 0.0 13.6 0.0 0.0 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 2.6 2.6 0.0 0.0 2.7 2.7 13.6 0.0 13.6 0.0 0.0 0.0  
DesignQueue: 0 3 0 0 3 2 0 0 0 0 0 0

Uptown Project Traffic Impact Analysis  
Existing Conditions AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #14 Telegraph Ave. / 19th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.390  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 10.6  
Optimal Cycle: 45 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 17 0 0 17 0 0 0 0 0 0 20 0  
Lanes: 0 1 1 0 0 0 0 2 1 0 0 0 0 0 0 1 0 1 0

Volume Module:  
Base Vol: 146 275 0 0 321 41 0 0 0 31 174 133  
Growth Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
Initial Bse: 131 248 0 0 289 37 0 0 0 28 157 120  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.81 0.81 0.81 0.82 0.82 0.82 0.90 0.90 0.90 0.83 0.83 0.83  
PHF Volume: 162 306 0 0 353 45 0 0 0 34 189 145  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 162 306 0 0 353 45 0 0 0 34 189 145  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 162 306 0 0 353 45 0 0 0 34 189 145

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.63 0.63 1.00 1.00 0.85 0.85 1.00 1.00 1.00 0.78 0.78 0.78  
Lanes: 0.69 1.31 0.00 0.00 2.66 0.34 0.00 0.00 0.00 0.18 1.03 0.79  
Final Sat.: 825 1553 0 0 4295 549 0 0 0 271 1522 1163

Capacity Analysis Module:  
Vol/Sat: 0.20 0.20 0.00 0.00 0.08 0.08 0.00 0.00 0.00 0.12 0.12 0.12  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.38 0.38 0.00 0.00 0.38 0.38 0.00 0.00 0.00 0.44 0.44 0.44  
Volume/Cap: 0.52 0.52 0.00 0.00 0.22 0.22 0.00 0.00 0.00 0.28 0.28 0.28  
Delay/Veh: 13.0 13.0 0.0 0.0 9.8 9.8 0.0 0.0 0.0 8.5 8.5 8.5  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 13.0 13.0 0.0 0.0 9.8 9.8 0.0 0.0 0.0 8.5 8.5 8.5  
DesignQueue: 3 5 0 0 6 1 0 0 0 0 3 2

Uptown Project Traffic Impact Analysis  
Existing Conditions AM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #15 Telegraph / 18th

Cycle (sec): 45 Critical Vol./Cap. (X): 0.241  
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 5.0  
Optimal Cycle: 21 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 10 0 10 0 0 0 0  
Lanes: 0 1 1 0 0 0 0 1 0 1 0 0 0 0 0

Volume Module:  
Base Vol: 34 405 0 0 305 12 20 0 4 0 0 0 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 34 405 0 0 305 12 20 0 4 0 0 0 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 38 450 0 0 339 13 22 0 4 0 0 0 0  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 38 450 0 0 339 13 22 0 4 0 0 0 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 38 450 0 0 339 13 22 0 4 0 0 0 0

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.87 0.87 1.00 1.00 1.00 0.85 0.72 1.00 0.72 1.00 1.00 1.00  
Lanes: 0.15 1.85 0.00 0.00 1.00 1.00 0.83 0.00 0.17 0.00 0.00 0.00  
Final Sat.: 256 3054 0 0 1900 1615 1139 0 228 0 0 0

Capacity Analysis Module:  
Vol/Sat: 0.15 0.15 0.00 0.00 0.18 0.01 0.02 0.00 0.02 0.00 0.00 0.00  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.60 0.60 0.00 0.00 0.60 0.60 0.22 0.00 0.22 0.00 0.00 0.00  
Volume/Cap: 0.25 0.25 0.00 0.00 0.30 0.01 0.09 0.00 0.09 0.00 0.00 0.00  
Delay/Veh: 4.5 4.5 0.0 0.0 5.0 3.7 14.5 0.0 14.5 0.0 0.0 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 4.5 4.5 0.0 0.0 5.0 3.7 14.5 0.0 14.5 0.0 0.0 0.0  
DesignQueue: 0 5 0 0 4 0 0 0 0 0 0 0

Uptown Project Traffic Impact Analysis  
Existing Conditions AM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #16 Telegraph Ave./ 17th St.

Cycle (sec): 40 Critical Vol./Cap. (X): 0.409  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 11.0  
Optimal Cycle: 38 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 20 0 0 20 0 0 10 0 0 0 0 0  
Lanes: 0 0 1 1 0 0 0 1 1 0 0 0 1 1 0 0 0 0 0 0

Volume Module:  
Base Vol: 0 258 5 77 194 0 155 698 73 0 0 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 258 5 77 194 0 155 698 73 0 0 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 0 287 6 86 216 0 172 776 81 0 0 0  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 287 6 86 216 0 172 776 81 0 0 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 0 287 6 86 216 0 172 776 81 0 0 0

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 0.88 0.88 0.70 0.70 1.00 0.84 0.84 0.84 1.00 1.00 1.00  
Lanes: 0.00 1.96 0.04 0.57 1.43 0.00 0.50 2.26 0.24 0.00 0.00 0.00  
Final Sat.: 0 3266 63 756 1905 0 805 3626 379 0 0 0

Capacity Analysis Module:  
Vol/Sat: 0.00 0.09 0.09 0.11 0.11 0.00 0.21 0.21 0.21 0.00 0.00 0.00  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.00 0.50 0.50 0.50 0.50 0.00 0.30 0.30 0.30 0.00 0.00 0.00  
Volume/Cap: 0.00 0.18 0.18 0.23 0.23 0.00 0.71 0.71 0.71 0.00 0.00 0.00  
Delay/Veh: 0.0 5.5 5.5 5.7 5.7 0.0 14.2 14.2 14.2 0.0 0.0 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 5.5 5.5 5.7 5.7 0.0 14.2 14.2 14.2 0.0 0.0 0.0  
DesignQueue: 0 3 0 1 2 0 3 13 1 0 0 0

Uptown Project Traffic Impact Analysis Existing Conditions AM Peak Hour

Level Of Service Computation Report 1997 HCM Operations Method (Base Volume Alternative)

Intersection #17 Broadway/ W. Grand Ave.

Cycle (sec): 85 Critical Vol./Cap. (X): 0.782
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 25.0
Optimal Cycle: 87 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns representing different traffic movements and 11 rows of volume and adjustment factors.

Saturation Flow Module table with 12 columns and 6 rows showing saturation flow rates and adjustments.

Capacity Analysis Module table with 12 columns and 11 rows showing capacity metrics like Vol/Sat, Crit Moves, and Green/Cycle.

Uptown Project Traffic Impact Analysis Existing Conditions AM Peak Hour

Level Of Service Computation Report 1997 HCM Operations Method (Base Volume Alternative)

Intersection #18 Broadway/ 20th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.503
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 11.8
Optimal Cycle: 43 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns and 11 rows of volume and adjustment factors.

Saturation Flow Module table with 12 columns and 6 rows showing saturation flow rates and adjustments.

Capacity Analysis Module table with 12 columns and 11 rows showing capacity metrics like Vol/Sat, Crit Moves, and Green/Cycle.

Uptown Project Traffic Impact Analysis  
Existing Conditions AM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #19 Broadway/ 19th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.324  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 13.0  
Optimal Cycle: 60 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 21 0 0 21 0 0 0 0 0 0 31 0  
Lanes: 0 1 1 0 0 0 0 2 1 0 0 0 0 0 0 0 1 0 1 0

Volume Module:

Base Vol: 22 346 0 0 518 64 0 0 0 27 278 78  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 22 346 0 0 518 64 0 0 0 27 278 78  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 24 384 0 0 576 71 0 0 0 30 309 87  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 24 384 0 0 576 71 0 0 0 30 309 87  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 24 384 0 0 576 71 0 0 0 30 309 87

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.76 0.76 1.00 1.00 0.81 0.81 1.00 1.00 1.00 0.80 0.80 0.80  
Lanes: 0.12 1.88 0.00 0.00 2.67 0.33 0.00 0.00 0.00 0.14 1.45 0.41  
Final Sat.: 172 2713 0 0 4088 505 0 0 0 215 2214 621

Capacity Analysis Module:

Vol/Sat: 0.14 0.14 0.00 0.00 0.14 0.14 0.00 0.00 0.00 0.14 0.14 0.14  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.35 0.35 0.00 0.00 0.35 0.35 0.00 0.00 0.00 0.52 0.52 0.52  
Volume/Cap: 0.40 0.40 0.00 0.00 0.40 0.40 0.00 0.00 0.00 0.27 0.27 0.27  
Delay/Veh: 15.0 15.0 0.0 0.0 14.9 14.9 0.0 0.0 0.0 8.2 8.2 8.2  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 15.0 15.0 0.0 0.0 14.9 14.9 0.0 0.0 0.0 8.2 8.2 8.2  
DesignQueue: 1 9 0 0 13 2 0 0 0 5 1

Uptown Project Traffic Impact Analysis  
Existing Conditions AM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #20 Broadway/ 17th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.536  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 13.9  
Optimal Cycle: 60 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 27 0 0 27 0 0 25 0 0 0 0 0  
Lanes: 0 0 1 1 0 0 0 1 2 0 0 1 0 1 1 0 0 0 0 0 0

Volume Module:

Base Vol: 0 247 79 100 483 0 76 703 30 0 0 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 247 79 100 483 0 76 703 30 0 0 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 0 274 88 111 537 0 84 781 33 0 0 0  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 274 88 111 537 0 84 781 33 0 0 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 0 274 88 111 537 0 84 781 33 0 0 0

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 0.74 0.74 0.62 0.62 1.00 0.89 0.76 0.76 1.00 1.00 1.00  
Lanes: 0.00 1.52 0.48 0.51 2.49 0.00 1.00 1.92 0.08 0.00 0.00 0.00  
Final Sat.: 0 2136 683 602 2909 0 1700 2788 119 0 0 0

Capacity Analysis Module:

Vol/Sat: 0.00 0.13 0.13 0.18 0.18 0.00 0.05 0.28 0.28 0.00 0.00 0.00  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.00 0.45 0.45 0.45 0.45 0.00 0.42 0.42 0.42 0.00 0.00 0.00  
Volume/Cap: 0.00 0.29 0.29 0.41 0.41 0.00 0.12 0.67 0.67 0.00 0.00 0.00  
Delay/Veh: 0.0 11.0 11.0 11.9 11.9 0.0 11.1 17.2 17.2 0.0 0.0 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 11.0 11.0 11.9 11.9 0.0 11.1 17.2 17.2 0.0 0.0 0.0  
DesignQueue: 0 5 2 2 10 0 2 16 1 0 0 0

Uptown Project Traffic Impact Analysis  
Existing Conditions AM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #21 Broadway / 15th

Cycle (sec): 60 Critical Vol./Cap. (X): 0.323  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 7.2  
Optimal Cycle: 33 Level of Service: A

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 25 0 0 25 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 0 0 2 0 0 0 0 2 0 0 0 0 0 0 0 2

Volume Module:  
Base Vol: 0 492 0 0 531 0 0 0 0 0 0 0 0 162  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 492 0 0 531 0 0 0 0 0 0 0 0 162  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 0 547 0 0 590 0 0 0 0 0 0 0 0 180  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 547 0 0 590 0 0 0 0 0 0 0 0 180  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 0 547 0 0 590 0 0 0 0 0 0 0 0 180

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 0.77 1.00 1.00 0.77 1.00 1.00 1.00 1.00 1.00 1.00 0.61  
Lanes: 0.00 2.00 0.00 0.00 2.00 0.00 0.00 0.00 0.00 0.00 0.00 2.00  
Final Sat.: 0 2924 0 0 2924 0 0 0 0 0 0 0 2302

Capacity Analysis Module:  
Vol/Sat: 0.00 0.19 0.00 0.00 0.20 0.00 0.00 0.00 0.00 0.00 0.00 0.08  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.00 0.62 0.00 0.00 0.62 0.00 0.00 0.00 0.00 0.00 0.00 0.24  
Volume/Cap: 0.00 0.30 0.00 0.00 0.32 0.00 0.00 0.00 0.00 0.00 0.00 0.32  
Delay/Veh: 0.0 5.3 0.0 0.0 5.4 0.0 0.0 0.0 0.0 0.0 0.0 19.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 5.3 0.0 0.0 5.4 0.0 0.0 0.0 0.0 0.0 0.0 19.0  
DesignQueue: 0 7 0 0 8 0 0 0 0 0 0 5

Uptown Project Traffic Impact Analysis  
Existing Conditions AM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #22 Broadway/ 14th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.462  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 12.6  
Optimal Cycle: 60 Level of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 29 0 0 29 0 0 23 0 0 23 0  
Lanes: 0 0 1 1 0 0 0 2 1 0 0 0 1 1 0 0 0 1 1 0

Volume Module:  
Base Vol: 0 364 58 0 611 121 0 231 129 0 403 127  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 364 58 0 611 121 0 231 129 0 403 127  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 0 404 64 0 679 134 0 257 143 0 448 141  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 404 64 0 679 134 0 257 143 0 448 141  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 0 404 64 0 679 134 0 257 143 0 448 141

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 0.75 0.75 1.00 0.75 0.75 1.00 0.73 0.73 1.00 0.74 0.74  
Lanes: 0.00 1.73 0.27 0.00 2.50 0.50 0.00 1.28 0.72 0.00 1.52 0.48  
Final Sat.: 0 2469 393 0 3546 702 0 1775 991 0 2143 675

Capacity Analysis Module:  
Vol/Sat: 0.00 0.16 0.16 0.00 0.19 0.19 0.00 0.14 0.14 0.00 0.21 0.21  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.00 0.48 0.48 0.00 0.48 0.48 0.00 0.38 0.38 0.00 0.38 0.38  
Volume/Cap: 0.00 0.34 0.34 0.00 0.40 0.40 0.00 0.38 0.38 0.00 0.54 0.54  
Delay/Veh: 0.0 10.2 10.2 0.0 10.5 10.5 0.0 14.4 14.4 0.0 16.4 16.4  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 10.2 10.2 0.0 10.5 10.5 0.0 14.4 14.4 0.0 16.4 16.4  
DesignQueue: 0 7 1 0 12 2 0 5 3 0 10 3



Uptown Project Traffic Impact Analysis  
Existing Conditions AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #23 Frontage Rd./ W. Grand Ave.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.659  
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 30.5  
Optimal Cycle: 62 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns representing different traffic movements and 10 rows of adjustment factors.

Saturation Flow Module table with 12 columns and 5 rows of saturation flow data.

Capacity Analysis Module table with 12 columns and 10 rows of capacity and delay analysis data.

Uptown Project Traffic Impact Analysis  
Existing Conditions AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #24 Mandela Pkwy/ W. Grand Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.294  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 17.2  
Optimal Cycle: 118 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns representing different traffic movements and 10 rows of adjustment factors.

Saturation Flow Module table with 12 columns and 5 rows of saturation flow data.

Capacity Analysis Module table with 12 columns and 10 rows of capacity and delay analysis data.

Uptown Project Traffic Impact Analysis Existing Conditions AM Peak Hour

Level of Service Computation Report 1997 HCM Operations Method (Base Volume Alternative)

Intersection #25 Northgate Ave./ W. Grand Ave.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.534
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 26.2
Optimal Cycle: 72 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 20 0 20 7 40 0 0 0 0
Lanes: 0 0 0 0 2 0 0 0 1 1 0 2 0 0 0 0 0 1 1 0

Volume Module: >> Count Date: 9 Nov 2000 <<
Base Vol: 0 0 0 637 0 192 161 568 0 0 589 74
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 637 0 192 161 568 0 0 589 74
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume: 0 0 0 650 0 196 164 580 0 0 601 76
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 650 0 196 164 580 0 0 601 76
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 650 0 196 164 580 0 0 601 76

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.59 1.00 0.72 0.95 0.88 1.00 1.00 0.86 0.86
Lanes: 0.00 0.00 0.00 2.00 0.00 1.00 1.00 2.00 0.00 0.00 1.78 0.22
Final Sat.: 0 0 0 2245 0 1373 1805 3339 0 0 2916 366

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.29 0.00 0.14 0.09 0.17 0.00 0.00 0.21 0.21
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.00 0.00 0.42 0.00 0.42 0.14 0.44 0.00 0.00 0.31 0.31
Volume/Cap: 0.00 0.00 0.00 0.69 0.00 0.34 0.67 0.39 0.00 0.00 0.67 0.67
Delay/Veh: 0.0 0.0 0.0 25.2 0.0 19.1 50.5 17.6 0.0 0.0 30.6 30.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 25.2 0.0 19.1 50.5 17.6 0.0 0.0 30.6 30.6
DesignQueue: 0 0 0 20 0 6 7 17 0 0 22 3

Uptown Project Traffic Impact Analysis Existing Conditions AM Peak Hour

Level of Service Computation Report 1997 HCM Operations Method (Base Volume Alternative)

Intersection #26 Webster St./Grand Ave.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.577
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 17.0
Optimal Cycle: 52 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 20 0 0 15 0 9 15 0
Lanes: 0 0 0 0 0 1 0 0 1 0 1 0 1 0 1 0 1 1 0

Volume Module: >> Count Date: 8 Jul 2003 <<
Base Vol: 0 0 0 17 203 21 53 355 321 120 424 32
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 17 203 21 53 355 321 120 424 32
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 0.90 0.90 0.90 0.94 0.94 0.94 0.97 0.97 0.97
PHF Volume: 0 0 0 19 226 23 56 376 340 124 439 33
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 19 226 23 56 376 340 124 439 33
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 19 226 23 56 376 340 124 439 33

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.85 0.85 0.72 0.73 0.73 0.73 0.95 0.87 0.87
Lanes: 0.00 0.00 0.00 0.08 0.92 1.00 0.15 0.97 0.88 1.00 1.86 0.14
Final Sat.: 0 0 0 125 1490 1373 200 1343 1214 1805 3074 232

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.15 0.15 0.02 0.28 0.28 0.28 0.07 0.14 0.14
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.00 0.00 0.33 0.33 0.33 0.38 0.38 0.38 0.15 0.53 0.53
Volume/Cap: 0.00 0.00 0.00 0.45 0.45 0.05 0.73 0.73 0.73 0.46 0.27 0.27
Delay/Veh: 0.0 0.0 0.0 18.5 18.5 13.8 20.3 20.3 20.3 28.8 8.0 8.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 18.5 18.5 13.8 20.3 20.3 20.3 28.8 8.0 8.0
DesignQueue: 0 0 0 0 5 1 1 8 7 4 7 1

Uptown Project Traffic Impact Analysis  
Existing Conditions AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #27 Harrison St./ Grand Ave.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.614  
Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 22.6  
Optimal Cycle: 49 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 14 Nov 2000 <<. Grid of traffic volume data for various approaches and movements.

Saturation Flow Module. Grid of saturation flow data for different lane configurations.

Capacity Analysis Module. Grid of capacity analysis data including Vol/Sat, Crit Moves, Green/Cycle, etc.

Uptown Project Traffic Impact Analysis  
Existing Conditions AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #28 El Embarcadero / Grand Ave.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.432  
Loss Time (sec): 12 (Y+R = 8 sec) Average Delay (sec/veh): 19.0  
Optimal Cycle: 67 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 9 Jul 2003 <<. Grid of traffic volume data for various approaches and movements.

Saturation Flow Module. Grid of saturation flow data for different lane configurations.

Capacity Analysis Module. Grid of capacity analysis data including Vol/Sat, Crit Moves, Green/Cycle, etc.

Uptown Project Traffic Impact Analysis Existing Conditions AM Peak Hour

Level Of Service Computation Report 1997 HCM Operations Method (Base Volume Alternative)

Intersection #29 MacArther Blvd./ Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.627
Loss Time (sec): 12 (Y+R = 8 sec) Average Delay (sec/veh): 21.7
Optimal Cycle: 74 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 25 0 0 25 0 12 25 0
Lanes: 0 0 0 0 0 1 1 1 0 0 0 2 0 1

Volume Module: >> Count Date: 9 Nov 2000 <<
Base Vol: 0 0 0 278 512 188 0 551 150 277 1062 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 278 512 188 0 551 150 277 1062 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 0 0 293 539 198 0 580 158 292 1118 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 293 539 198 0 580 158 292 1118 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 293 539 198 0 580 158 292 1118 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.86 0.86 0.86 1.00 0.95 0.85 0.95 0.91 1.00
Lanes: 0.00 0.00 0.00 0.85 1.57 0.58 0.00 2.00 1.00 1.00 3.00 0.00
Final Sat.: 0 0 0 1390 2560 940 0 3610 1615 1805 5187 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.21 0.21 0.21 0.00 0.16 0.10 0.16 0.22 0.00
Crit Moves:
Green/Cycle: 0.00 0.00 0.00 0.31 0.31 0.31 0.00 0.31 0.31 0.23 0.54 0.00
Volume/Cap: 0.00 0.00 0.00 0.67 0.67 0.67 0.00 0.51 0.31 0.72 0.40 0.00
Delay/Veh: 0.0 0.0 0.0 26.3 26.3 26.3 0.0 24.2 22.6 39.1 11.3 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 26.3 26.3 26.3 0.0 24.2 22.6 39.1 11.3 0.0
DesignQueue: 0 0 0 9 17 6 0 18 5 10 24 0

Uptown Project Traffic Impact Analysis Existing Conditions AM Peak Hour

Level Of Service Computation Report 1997 HCM Operations Method (Base Volume Alternative)

Intersection #30 MacArther Blvd./ Lake Shore Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.496
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 16.5
Optimal Cycle: 76 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Prot+Permit
Rights: Include Ignore Include Include
Min. Green: 0 0 0 0 0 22 0 0 30 0 12 30 0
Lanes: 0 0 0 0 0 1 1 2 0 1 0 0 2 0 1

Volume Module: >> Count Date: 9 Jul 2000 <<
Base Vol: 0 0 0 233 435 94 0 457 237 265 648 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 233 435 94 0 457 237 265 648 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 0.90 0.90 0.00 0.95 0.95 0.95 0.90 0.90 0.90
PHF Volume: 0 0 0 258 482 0 0 479 249 294 718 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 258 482 0 0 479 249 294 718 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 258 482 0 0 479 249 294 718 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.77 0.77 1.00 1.00 0.95 0.85 0.56 0.95 1.00
Lanes: 0.00 0.00 0.00 1.40 2.60 1.00 0.00 2.00 1.00 1.00 2.00 0.00
Final Sat.: 0 0 0 2050 3828 1900 0 3610 1615 1056 3610 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.13 0.13 0.00 0.00 0.13 0.15 0.28 0.20 0.00
Crit Moves:
Green/Cycle: 0.00 0.00 0.00 0.28 0.28 0.00 0.00 0.38 0.38 0.58 0.58 0.00
Volume/Cap: 0.00 0.00 0.00 0.46 0.46 0.00 0.00 0.35 0.41 0.48 0.35 0.00
Delay/Veh: 0.0 0.0 0.0 24.3 24.3 0.0 0.0 18.2 18.9 9.9 9.1 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 24.3 24.3 0.0 0.0 18.2 18.9 9.9 9.1 0.0
DesignQueue: 0 0 0 9 16 0 0 14 7 11 14 0

Uptown Project Traffic Impact Analysis  
Existing Conditions AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #31 Lake Park Ave./ Lake Shore Ave.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.902  
Loss Time (sec): 16 (Y+R = 12 sec) Average Delay (sec/veh): 49.3  
Optimal Cycle: 110 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L-T-R), Control (Split Phase, Protected), Rights (Include), and Lanes. Values include traffic volumes and lane counts.

Volume Module: >> Count Date: 17 Jul 2003 <<. Table with 12 columns for different approaches and movements, showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Reduced Vol.

Saturation Flow Module: Table with 12 columns for different approaches and movements, showing Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for different approaches and movements, showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing Conditions AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #32 Brush St./ 18th St.

Cycle (sec): 75 Critical Vol./Cap. (X): 0.421  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 5.7  
Optimal Cycle: 63 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L-T-R), Control (Permitted), Rights (Include), and Lanes. Values include traffic volumes and lane counts.

Volume Module: Table with 12 columns for different approaches and movements, showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Reduced Vol.

Saturation Flow Module: Table with 12 columns for different approaches and movements, showing Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for different approaches and movements, showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing Conditions AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #33 18th St./ Castro St.

Cycle (sec): 40 Critical Vol./Cap. (X): 0.268  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 7.3  
Optimal Cycle: 41 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	20	0	0	0	0	0	0	0	0	13	0
Lanes:	1	1	3	0	0	0	0	0	0	0	0	1

Volume Module:

Base Vol:	189	726	0	0	0	0	0	0	0	0	24	205
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	189	726	0	0	0	0	0	0	0	0	24	205
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	210	807	0	0	0	0	0	0	0	0	27	228
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	210	807	0	0	0	0	0	0	0	0	27	228
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	210	807	0	0	0	0	0	0	0	0	27	228

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.77	0.77	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.87	0.87	0.87
Lanes:	1.03	3.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	1.79	1.79
Final Sat.:	1518	5830	0	0	0	0	0	0	0	345	2946	2946

Capacity Analysis Module:

Vol/Sat:	0.14	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08
Crit Moves:	****											
Green/Cycle:	0.49	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.32	0.32
Volume/Cap:	0.28	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.24	0.24
Delay/Veh:	6.4	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.9	10.9	10.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	6.4	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.9	10.9	10.9
DesignQueue:	3	10	0	0	0	0	0	0	0	0	0	4

Uptown Project Traffic Impact Analysis  
Existing Conditions AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #34 MLK Jr. Way/ 18th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.103  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 10.6  
Optimal Cycle: 62 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	27	0	0	27	0	0	0	0	0	27	0
Lanes:	0	1	1	0	0	1	0	0	0	1	0	2

Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol:	11	137	0	0	142	60	0	0	0	20	60	21
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	137	0	0	142	60	0	0	0	20	60	21
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90
PHF Volume:	12	152	0	0	158	67	0	0	0	22	67	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	152	0	0	158	67	0	0	0	22	67	23
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	12	152	0	0	158	67	0	0	0	22	67	23

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.82	0.82	1.00	1.00	0.84	0.84	1.00	1.00	1.00	0.96	0.83	0.83
Lanes:	0.15	1.85	0.00	0.00	1.41	0.59	0.00	0.00	0.00	1.00	2.22	0.78
Final Sat.:	231	2878	0	0	2242	947	0	0	0	1826	3508	1228

Capacity Analysis Module:

Vol/Sat:	0.05	0.05	0.00	0.00	0.07	0.07	0.00	0.00	0.00	0.01	0.02	0.02
Crit Moves:	****											
Green/Cycle:	0.44	0.44	0.00	0.00	0.44	0.44	0.00	0.00	0.00	0.44	0.44	0.44
Volume/Cap:	0.12	0.12	0.00	0.00	0.16	0.16	0.00	0.00	0.00	0.03	0.04	0.04
Delay/Veh:	10.6	10.6	0.0	0.0	10.9	10.9	0.0	0.0	0.0	10.1	10.1	10.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.6	10.6	0.0	0.0	10.9	10.9	0.0	0.0	0.0	10.1	10.1	10.1
DesignQueue:	0	3	0	0	3	1	0	0	0	0	1	0

Upton Project Traffic Impact Analysis  
Existing Conditions AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*  
Intersection #35 Brush St. / 17th St.  
\*\*\*\*\*

Cycle (sec): 40 Critical Vol./Cap. (X): 0.581  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 7.4  
Optimal Cycle: 33 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	15	0	0	10	0	0	0	0
Lanes:	0	0	0	1	1	2	0	0	1	1	0	0

Volume Module:

Base Vol:	0	0	0	1005	813	0	0	181	81	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	1005	813	0	0	181	81	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	0	1117	903	0	0	201	90	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	1117	903	0	0	201	90	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	1117	903	0	0	201	90	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.77	0.77	1.00	1.00	0.91	0.91	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	2.00	0.00	0.00	1.38	0.62	0.00	0.00	0.00
Final Sat.:	0	0	0	2939	2939	0	0	2379	1065	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.38	0.31	0.00	0.00	0.08	0.08	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.00	0.00	0.55	0.55	0.00	0.00	0.25	0.25	0.00	0.00	0.00
Volume/Cap:	0.00	0.00	0.00	0.69	0.56	0.00	0.00	0.34	0.34	0.00	0.00	0.00
Delay/Veh:	0.0	0.0	0.0	7.2	6.0	0.0	0.0	12.5	12.5	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	7.2	6.0	0.0	0.0	12.5	12.5	0.0	0.0	0.0
DesignQueue:	0	0	0	12	10	0	0	3	2	0	0	0

Upton Project Traffic Impact Analysis  
Existing Conditions AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

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Intersection #36 17th St / Castro St  
\*\*\*\*\*

Cycle (sec): 70 Critical Vol./Cap. (X): 0.445  
Loss Time (sec): 12 (Y+R = 6 sec) Average Delay (sec/veh): 24.7  
Optimal Cycle: 62 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	10	0	0	0	0	0	0	20	0	0	20
Lanes:	0	0	1	1	0	0	0	0	3	0	0	2

Volume Module:

Base Vol:	0	617	70	0	0	0	182	374	0	0	0	302	37
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	617	70	0	0	0	182	374	0	0	0	302	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	686	78	0	0	0	202	416	0	0	0	336	41
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	686	78	0	0	0	202	416	0	0	0	336	41
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	686	78	0	0	0	202	416	0	0	0	336	41

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.94	0.94	1.00	1.00	1.00	0.95	0.91	1.00	1.00	1.00	0.90	0.90
Lanes:	0.00	1.80	0.20	0.00	0.00	0.00	1.00	3.00	0.00	0.00	2.67	0.33	0.33
Final Sat.:	0	3194	362	0	0	0	1805	5187	0	0	4547	557	557

Capacity Analysis Module:

Vol/Sat:	0.00	0.21	0.21	0.00	0.00	0.00	0.11	0.08	0.00	0.00	0.07	0.07	0.07
Crit Moves:	****			****			****			****			
Green/Cycle:	0.00	0.26	0.26	0.00	0.00	0.00	0.29	0.29	0.00	0.00	0.29	0.29	0.29
Volume/Cap:	0.00	0.83	0.83	0.00	0.00	0.00	0.39	0.28	0.00	0.00	0.26	0.26	0.26
Delay/Veh:	0.0	31.3	31.3	0.0	0.0	0.0	20.6	19.5	0.0	0.0	19.4	19.4	19.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	31.3	31.3	0.0	0.0	0.0	20.6	19.5	0.0	0.0	19.4	19.4	19.4
DesignQueue:	0	21	2	0	0	0	6	12	0	0	9	1	1

Uptown Project Traffic Impact Analysis  
Existing Conditions AM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #37 MLK Jr. Way/ 17th St

Cycle (sec): 60 Critical Vol./Cap. (X): 0.295  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 11.7  
Optimal Cycle: 58 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 25 0 0 25 0 0 25 0 0 0 0  
Lanes: 0 0 1 1 0 0 1 1 0 0 0 0 0 0 0

Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol: 0 58 17 10 137 0 3 1223 100 0 0 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 58 17 10 137 0 3 1223 100 0 0 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 1.00 1.00 1.00 0.95 0.95 0.95  
PHF Volume: 0 64 19 11 152 0 3 1223 100 0 0 0  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 64 19 11 152 0 3 1223 100 0 0 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 0 64 19 11 152 0 3 1223 100 0 0 0

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 0.92 0.92 0.82 0.82 1.00 0.86 0.86 0.86 1.00 1.00 1.00  
Lanes: 0.00 1.55 0.45 0.14 1.86 0.00 0.01 3.69 0.30 0.00 0.00 0.00  
Final Sat.: 0 2697 790 213 2913 0 15 6005 491 0 0 0

Capacity Analysis Module:

Vol/Sat: 0.00 0.02 0.02 0.05 0.05 0.00 0.20 0.20 0.20 0.00 0.00 0.00  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.00 0.42 0.42 0.42 0.42 0.00 0.45 0.45 0.45 0.00 0.00 0.00  
Volume/Cap: 0.00 0.06 0.06 0.13 0.13 0.00 0.45 0.45 0.45 0.00 0.00 0.00  
Delay/Veh: 0.0 10.5 10.5 11.0 11.0 0.0 11.9 11.9 11.9 0.0 0.0 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 10.5 10.5 11.0 11.0 0.0 11.9 11.9 11.9 0.0 0.0 0.0  
DesignQueue: 0 1 0 0 3 0 0 24 2 0 0 0

Uptown Project Traffic Impact Analysis  
Existing Conditions AM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #38 Jefferson St./ 17th St

Cycle (sec): 60 Critical Vol./Cap. (X): 0.263  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 11.3  
Optimal Cycle: 59 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 25 0 0 25 0 0 26 0 0 0 0  
Lanes: 0 0 1 1 0 0 1 1 0 0 1 2 1 0 0 0 0 0 0

Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol: 0 55 39 10 47 0 23 1119 102 0 0 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 55 39 10 47 0 23 1119 102 0 0 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 1.00 1.00 1.00 0.90 0.90 0.90  
PHF Volume: 0 61 43 11 52 0 23 1119 102 0 0 0  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 61 43 11 52 0 23 1119 102 0 0 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 0 61 43 11 52 0 23 1119 102 0 0 0

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 0.80 0.80 0.78 0.78 1.00 0.84 0.84 0.84 1.00 1.00 1.00  
Lanes: 0.00 1.17 0.83 0.35 1.65 0.00 0.07 3.60 0.33 0.00 0.00 0.00  
Final Sat.: 0 1783 1264 519 2438 0 119 5769 526 0 0 0

Capacity Analysis Module:

Vol/Sat: 0.00 0.03 0.03 0.02 0.02 0.00 0.19 0.19 0.19 0.00 0.00 0.00  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.00 0.42 0.42 0.42 0.42 0.00 0.45 0.45 0.45 0.00 0.00 0.00  
Volume/Cap: 0.00 0.08 0.08 0.05 0.05 0.00 0.43 0.43 0.43 0.00 0.00 0.00  
Delay/Veh: 0.0 10.6 10.6 10.4 10.4 0.0 11.4 11.4 11.4 0.0 0.0 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 10.6 10.6 10.4 10.4 0.0 11.4 11.4 11.4 0.0 0.0 0.0  
DesignQueue: 0 1 1 0 1 0 0 21 2 0 0 0



Uptown Project Traffic Impact Analysis  
Existing Conditions AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #39 Franklin St./ 17th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.383  
Loss Time (sec): 8 (Y+R = 7 sec) Average Delay (sec/veh): 15.4  
Optimal Cycle: 45 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	23	0	0	0	0	0	14	0	0	0	0
Lanes:	0	0	3	1	0	0	0	1	1	0	0	0

Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol:	0	344	63	0	0	0	269	431	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	344	63	0	0	0	269	431	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98
PHF Volume:	0	375	69	0	0	0	269	431	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	375	69	0	0	0	269	431	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	375	69	0	0	0	269	431	0	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.86	0.86	1.00	1.00	1.00	0.75	0.75	1.00	1.00	1.00	1.00
Lanes:	0.00	3.38	0.62	0.00	0.00	0.00	0.77	1.23	0.00	0.00	0.00	0.00
Final Sat.:	0	5497	1007	0	0	0	1091	1748	0	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.07	0.07	0.00	0.00	0.00	0.25	0.25	0.00	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.51	0.51	0.00	0.00	0.00	0.31	0.31	0.00	0.00	0.00	0.00
Volume/Cap:	0.00	0.13	0.13	0.00	0.00	0.00	0.79	0.79	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	5.9	5.9	0.0	0.0	0.0	21.4	21.4	0.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	5.9	5.9	0.0	0.0	0.0	21.4	21.4	0.0	0.0	0.0	0.0
DesignQueue:	0	5	1	0	0	0	5	8	0	0	0	0

Uptown Project Traffic Impact Analysis  
Existing Conditions AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #40 Webster St./ 17th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.307  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 10.0  
Optimal Cycle: 47 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	22	0	0	17	0	0	0	0
Lanes:	0	0	0	0	1	3	0	0	1	1	0	0

Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol:	0	0	0	57	419	0	0	288	183	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	57	419	0	0	288	183	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	0.90	0.90	0.90	0.93	0.93	0.93	1.00	1.00	1.00
PHF Volume:	0	0	0	63	466	0	0	311	197	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	63	466	0	0	311	197	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	63	466	0	0	311	197	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.74	0.74	1.00	1.00	0.83	0.83	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.48	3.52	0.00	0.00	1.22	0.78	0.00	0.00	0.00
Final Sat.:	0	0	0	678	4981	0	0	1923	1222	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.09	0.09	0.00	0.00	0.16	0.16	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.00	0.00	0.47	0.47	0.00	0.00	0.36	0.36	0.00	0.00	0.00
Volume/Cap:	0.00	0.00	0.00	0.20	0.20	0.00	0.00	0.45	0.45	0.00	0.00	0.00
Delay/Veh:	0.0	0.0	0.0	7.5	7.5	0.0	0.0	12.7	12.7	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	7.5	7.5	0.0	0.0	12.7	12.7	0.0	0.0	0.0
DesignQueue:	0	0	0	1	7	0	0	5	3	0	0	0

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #1 San Pablo Ave./ 31st St.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.339  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 9.5  
Optimal Cycle: 82 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Permitted/Protected), and Rights (Include/Include). Includes Min. Green and Lanes data.

Volume Module: >> Count Date: 9 Jul 2003 <<. Table with 4 columns (North, South, East, West) and 3 rows (L, T, R) for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module: Table with 4 columns (North, South, East, West) and 3 rows (L, T, R) for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 4 columns (North, South, East, West) and 3 rows (L, T, R) for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #2 San Pablo Ave./ Market St.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.421  
Loss Time (sec): 8 (Y+R = 10 sec) Average Delay (sec/veh): 9.9  
Optimal Cycle: 78 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement (L-T-R), Control (Permitted/Protected), and Rights (Include/Include). Includes Min. Green and Lanes data.

Volume Module: >> Count Date: 9 Jul 2003 <<. Table with 4 columns (North, South, East, West) and 3 rows (L, T, R) for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module: Table with 4 columns (North, South, East, West) and 3 rows (L, T, R) for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 4 columns (North, South, East, West) and 3 rows (L, T, R) for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #3 San Pablo Ave. / 27th

Cycle (sec): 90 Critical Vol./Cap. (X): 0.435  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 12.3  
Optimal Cycle: 90 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 60 0 0 60 0 0 22 0 0 22 0  
Lanes: 0 1 0 1 0 1 0 1 1 0 0 0 1 1 0 1 0 1 0 1

Volume Module:  
Base Vol: 8 960 60 174 638 7 21 40 19 53 87 90  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 8 960 60 174 638 7 21 40 19 53 87 90  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 9 1067 67 193 709 8 23 44 21 59 97 100  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 9 1067 67 193 709 8 23 44 21 59 97 100  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 9 1067 67 193 709 8 23 44 21 59 97 100

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.89 0.89 0.89 0.20 0.95 0.95 0.79 0.79 0.79 0.74 1.00 0.85  
Lanes: 0.01 1.87 0.12 1.00 1.98 0.02 0.26 0.50 0.24 1.00 1.00 1.00  
Final Sat.: 26 3167 198 386 3564 39 393 749 356 1397 1900 1615

Capacity Analysis Module:  
Vol/Sat: 0.34 0.34 0.34 0.50 0.20 0.20 0.06 0.06 0.06 0.04 0.05 0.06  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.67 0.67 0.67 0.67 0.67 0.24 0.24 0.24 0.24 0.24 0.24 0.24  
Volume/Cap: 0.51 0.51 0.51 0.75 0.30 0.30 0.24 0.24 0.24 0.17 0.21 0.25  
Delay/Veh: 8.3 8.3 8.3 28.3 6.6 6.6 28.9 28.9 28.9 27.9 28.1 28.9  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 8.3 8.3 8.3 28.3 6.6 6.6 28.9 28.9 28.9 27.9 28.1 28.9  
DesignQueue: 0 19 1 3 12 0 1 2 1 2 4 4

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #4 San Pablo Ave. / West St.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.397  
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 14.5  
Optimal Cycle: 73 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Split Phase Split Phase  
Rights: Include Include Include Include  
Min. Green: 0 32 0 0 32 0 12 0 12 17 0 17  
Lanes: 0 1 0 1 0 0 1 0 1 0 0 0 1 0 0 1

Volume Module: >> Count Date: 9 Jul 2003 <<  
Base Vol: 0 901 67 12 554 0 5 0 8 25 0 65  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 901 67 12 554 0 5 0 8 25 0 65  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95  
PHF Volume: 0 952 71 13 586 0 5 0 8 26 0 69  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 952 71 13 586 0 5 0 8 26 0 69  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 0 952 71 13 586 0 5 0 8 26 0 69

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.95 0.85 0.85 0.79 0.79 0.95 0.64 1.00 0.64 0.95 1.00 0.68  
Lanes: 0.00 1.86 0.14 0.04 1.96 0.00 0.38 0.00 0.62 1.00 0.00 1.00  
Final Sat.: 0 2994 223 64 2938 0 469 0 750 1805 0 1292

Capacity Analysis Module:  
Vol/Sat: 0.00 0.32 0.32 0.20 0.20 0.00 0.01 0.00 0.01 0.01 0.00 0.05  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.00 0.54 0.54 0.54 0.54 0.00 0.13 0.00 0.13 0.19 0.00 0.19  
Volume/Cap: 0.00 0.58 0.58 0.37 0.37 0.00 0.08 0.00 0.08 0.08 0.00 0.28  
Delay/Veh: 0.0 14.2 14.2 11.8 11.8 0.0 34.4 0.0 34.4 30.1 0.0 31.9  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 14.2 14.2 11.8 11.8 0.0 34.4 0.0 34.4 30.1 0.0 31.9  
DesignQueue: 0 23 2 0 14 0 0 0 0 1 0 3

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #5 San Pablo Ave./ Grand Ave

Cycle (sec): 80 Critical Vol./Cap. (X): 0.458  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 16.9  
Optimal Cycle: 81 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 10 columns and 10 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 10 columns and 4 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 10 columns and 8 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #6 San Pablo Ave./ 20th St.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.223  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 13.1  
Optimal Cycle: 58 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 10 columns and 10 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 10 columns and 4 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 10 columns and 8 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level of Service Computation Report  
1997 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 San Pablo / William St

Average Delay (sec/veh): 1.4 Worst Case Level of Service: A

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign  
Rights: Include Include Include Include  
Lanes: 0 0 2 0 0 0 0 2 0 0 0 0 0 0 0 1

Volume Module:  
Base Vol: 0 300 0 0 360 0 0 0 0 0 0 106  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 300 0 0 360 0 0 0 0 0 0 106  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 0 333 0 0 400 0 0 0 0 0 0 118  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Final Vol.: 0 333 0 0 400 0 0 0 0 0 0 118

Critical Gap Module:  
Critical Gap: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx 6.9  
FollowUpTim: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx 3.3

Capacity Module:  
Conflict Vol: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx 167  
Potent Cap.: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx 855  
Move Cap.: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx 855

Level of Service Module:  
Stopped Del: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx 9.9  
LOS by Move: \* A  
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT  
Shared Cap.: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx  
Shrd StpDel: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx  
Shared LOS: \*  
ApproachDel: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx 9.9  
ApproachLOS: \* A

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #8 San Pablo Ave. / 19th St.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.466  
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 24.7  
Optimal Cycle: 79 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Split Phase Split Phase  
Rights: Include Include Include Include  
Min. Green: 0 30 0 0 30 0 12 0 12 0 25 0  
Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 1 0 1 0

Volume Module:  
Base Vol: 19 129 0 0 264 94 109 0 9 37 539 71  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 19 129 0 0 264 94 109 0 9 37 539 71  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 21 143 0 0 293 104 121 0 10 41 599 79  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 21 143 0 0 293 104 121 0 10 41 599 79  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 21 143 0 0 293 104 121 0 10 41 599 79

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.55 0.88 1.00 1.00 0.95 0.72 0.72 1.00 0.72 0.86 0.86 0.86  
Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.92 0.00 0.08 0.11 1.67 0.22  
Final Sat.: 1053 3339 0 0 3610 1373 1269 0 105 187 2729 359

Capacity Analysis Module:  
Vol/Sat: 0.02 0.04 0.00 0.00 0.08 0.08 0.10 0.00 0.10 0.22 0.22 0.22  
Crit Moves: \*  
Green/Cycle: 0.38 0.38 0.00 0.00 0.38 0.38 0.15 0.00 0.15 0.32 0.32 0.32  
Volume/Cap: 0.05 0.11 0.00 0.00 0.22 0.20 0.64 0.00 0.64 0.68 0.68 0.68  
Delay/Veh: 16.2 16.5 0.0 0.0 17.4 17.8 46.0 0.0 46.0 26.8 26.8 26.8  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 16.2 16.5 0.0 0.0 17.4 17.8 46.0 0.0 46.0 26.8 26.8 26.8  
DesignQueue: 1 4 0 0 8 3 5 0 0 1 19 2

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level Of Service Computation Report  
1997 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 San Pablo / 18th

Average Delay (sec/veh): 2.9 Worst Case Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	1	0	0	0	0	1	0	0	1

Volume Module:

Base Vol:	0	165	34	22	345	0	4	2	4	8	0	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	165	34	22	345	0	4	2	4	8	0	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	183	38	24	383	0	4	2	4	9	0	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	183	38	24	383	0	4	2	4	9	0	22

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	221	xxxx	xxxxx	455	589	88	372	xxxx	111
Potent Cap.:	xxxx	xxxx	xxxxx	1360	xxxx	xxxxx	477	409	927	546	xxxx	928
Move Cap.:	xxxx	xxxx	xxxxx	1360	xxxx	xxxxx	459	402	927	533	xxxx	928

Level Of Service Module:

Stopped Del:	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	555	xxxxx	xxxx	766	xxxxx			
Shrd StpDel:	xxxxx	xxxx	xxxxx	7.7	xxxx	xxxxx	xxxxx	11.6	xxxxx	xxxxx	9.9	xxxxx			
Shared LOS:	*	*	*	A	*	*	*	B	*	*	A	*			
ApproachDel:	xxxxxx				xxxxxx			11.6			9.9				
ApproachLOS:	*				*			B			A				

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #10 San Pablo Ave./ 17th St.

Cycle (sec): 70 Critical Vol./Cap. (X): 0.344

Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 19.7

Optimal Cycle: 62 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	10	0	0	25	0	0	25	0	0	0	0
Lanes:	0	0	1	0	1	1	0	1	2	0	1	0

Volume Module:

Base Vol:	0	65	71	137	30	164	37	463	74	0	111	43
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	65	71	137	30	164	37	463	74	0	111	43
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	72	79	152	33	182	41	514	82	0	123	48
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	72	79	152	33	182	41	514	82	0	123	48
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	72	79	152	33	182	41	514	82	0	123	48

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.71	0.71	0.72	0.81	0.81	0.91	0.91	0.72	1.00	1.00	0.72
Lanes:	0.00	0.48	0.52	1.00	0.31	1.69	0.22	2.78	1.00	0.00	1.00	1.00
Final Sat.:	0	641	700	1360	475	2594	382	4784	1373	0	1900	1373

Capacity Analysis Module:

Vol/Sat:	0.00	0.11	0.11	0.11	0.07	0.07	0.11	0.11	0.06	0.00	0.06	0.03
Crit Moves:	****						****					
Green/Cycle:	0.00	0.30	0.30	0.30	0.30	0.30	0.36	0.36	0.36	0.00	0.17	0.17
Volume/Cap:	0.00	0.38	0.38	0.37	0.23	0.23	0.30	0.30	0.17	0.00	0.38	0.20
Delay/Veh:	0.0	22.1	22.1	22.0	19.1	19.1	16.6	16.6	16.1	0.0	28.9	26.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	22.1	22.1	22.0	19.1	19.1	16.6	16.6	16.1	0.0	28.9	26.8
DesignQueue:	0	2	2	4	1	5	1	13	2	0	4	2

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #11 Telegraph Ave./ W. Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.706  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 20.0  
Optimal Cycle: 68 Level Of Service: C

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Prot+Permit, Permitted Include), Rights, Min. Green, Lanes.

Volume Module: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #12 Telegraph Ave./ 20th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.330  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 10.4  
Optimal Cycle: 47 Level Of Service: B

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted Include), Rights, Min. Green, Lanes.

Volume Module: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #13 Telegraph / William St

Cycle (sec): 45 Critical Vol./Cap. (X): 0.178  
Loss Time (sec): 4 (Y+R = 4 sec) Average Delay (sec/veh): 2.6  
Optimal Cycle: 14 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #14 Telegraph Ave. / 19th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.466  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 10.9  
Optimal Cycle: 47 Level Of Service: E

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.



Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #15 Telegraph / 18th

Cycle (sec): 45 Critical Vol./Cap. (X): 0.352  
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 5.6  
Optimal Cycle: 24 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns and 12 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns and 4 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #16 Telegraph Ave./ 17th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.353  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 9.6  
Optimal Cycle: 24 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns and 12 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns and 4 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #17 Broadway/ W. Grand Ave.

Cycle (sec): 85 Critical Vol./Cap. (X): 0.913  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 38.4  
Optimal Cycle: 100 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns and 12 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns and 4 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #18 Broadway/ 20th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.444  
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 12.4  
Optimal Cycle: 56 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns and 12 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns and 4 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #19 Broadway/ 19th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.540  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 13.6  
Optimal Cycle: 60 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #20 Broadway/ 17th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.484  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 12.9  
Optimal Cycle: 60 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis Existing Conditions PM Peak Hour

Level Of Service Computation Report 1997 HCM Operations Method (Base Volume Alternative)

Intersection #21 Broadway/ 15th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.455
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 8.5
Optimal Cycle: 33 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 25 0 0 25 0 0 0 0 0 0 0 0 0 0 2
Lanes: 0 0 2 0 0 0 0 2 0 0 0 0 0 0 0 0

Volume Module:
Base Vol: 0 556 0 0 720 0 0 0 0 0 0 0 0 250
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 556 0 0 720 0 0 0 0 0 0 0 0 250
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 618 0 0 800 0 0 0 0 0 0 0 0 278
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 618 0 0 800 0 0 0 0 0 0 0 0 278
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 618 0 0 800 0 0 0 0 0 0 0 0 278

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.77 1.00 1.00 0.77 1.00 1.00 1.00 1.00 1.00 1.00 0.61
Lanes: 0.00 2.00 0.00 0.00 2.00 0.00 0.00 0.00 0.00 0.00 0.00 2.00
Final Sat.: 0 2924 0 0 2924 0 0 0 0 0 0 0 2302

Capacity Analysis Module:
Vol/Sat: 0.00 0.21 0.00 0.00 0.27 0.00 0.00 0.00 0.00 0.00 0.00 0.12
Crit Moves: \*\*\*\*\*
Green/Cycle: 0.00 0.60 0.00 0.00 0.60 0.00 0.00 0.00 0.00 0.00 0.00 0.27
Volume/Cap: 0.00 0.35 0.00 0.00 0.45 0.00 0.00 0.00 0.00 0.00 0.00 0.45
Delay/Veh: 0.0 6.2 0.0 0.0 6.7 0.0 0.0 0.0 0.0 0.0 0.0 19.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 6.2 0.0 0.0 6.7 0.0 0.0 0.0 0.0 0.0 0.0 19.0
DesignQueue: 0 9 0 0 11 0 0 0 0 0 0 7

Uptown Project Traffic Impact Analysis Existing Conditions PM Peak Hour

Level Of Service Computation Report 1997 HCM Operations Method (Base Volume Alternative)

Intersection #22 Broadway/ 14th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.528
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 13.5
Optimal Cycle: 60 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 26 0 0 26 0 0 0 26 0 0 0 26 0
Lanes: 0 0 1 1 0 0 0 2 1 0 0 0 1 1 0 0 0 1 1 0

Volume Module:
Base Vol: 0 433 29 0 921 87 0 273 152 0 397 106
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 433 29 0 921 87 0 273 152 0 397 106
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 481 32 0 1023 97 0 303 169 0 441 118
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 481 32 0 1023 97 0 303 169 0 441 118
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 481 32 0 1023 97 0 303 169 0 441 118

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.76 0.76 1.00 0.75 0.75 1.00 0.73 0.73 1.00 0.74 0.74
Lanes: 0.00 1.87 0.13 0.00 2.74 0.26 0.00 1.28 0.72 0.00 1.58 0.42
Final Sat.: 0 2716 182 0 3929 371 0 1777 989 0 2234 596

Capacity Analysis Module:
Vol/Sat: 0.00 0.18 0.18 0.00 0.26 0.26 0.00 0.17 0.17 0.00 0.20 0.20
Crit Moves: \*\*\*\*\*
Green/Cycle: 0.00 0.43 0.43 0.00 0.43 0.43 0.00 0.43 0.43 0.00 0.43 0.43
Volume/Cap: 0.00 0.41 0.41 0.00 0.60 0.60 0.00 0.39 0.39 0.00 0.46 0.46
Delay/Veh: 0.0 12.7 12.7 0.0 14.5 14.5 0.0 12.6 12.6 0.0 13.2 13.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 12.7 12.7 0.0 14.5 14.5 0.0 12.6 12.6 0.0 13.2 13.2
DesignQueue: 0 9 1 0 20 2 0 6 3 0 9 2

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #23 Frontage Rd./ W. Grand Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.947  
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 57.7  
Optimal Cycle: 120 Level Of Service: E

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 10 columns and 12 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 10 columns and 5 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 10 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #24 Mandela Pkwy/ W. Grand Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.415  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 19.9  
Optimal Cycle: 118 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 10 columns and 12 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 10 columns and 5 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 10 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #25 Northgate Ave./ W. Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.722  
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 26.5  
Optimal Cycle: 73 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 10 columns and 13 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 10 columns and 5 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 10 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #26 Webster St./Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.624  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 22.2  
Optimal Cycle: 75 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 10 columns and 13 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 10 columns and 5 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 10 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #27 Harrison St./ Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.912  
Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 27.9  
Optimal Cycle: 102 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module table with 10 columns and 13 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with 10 columns and 6 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 10 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #28 El Embarcadero / Grand Ave.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.876  
Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 25.2  
Optimal Cycle: 100 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module table with 10 columns and 13 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with 10 columns and 6 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 10 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #29 MacArther Blvd./ Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.837  
Loss Time (sec): 12 (Y+R = 8 sec) Average Delay (sec/veh): 27.9  
Optimal Cycle: 79 Level Of Service: C

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North, South, East, West bounds.

Volume Module: >> Count Date: 9 Nov 2000 <<. Table with columns: Sat/Lane, Adj, Lanes, Final Sat.

Saturation Flow Module: Table with columns: Sat/Lane, Adj, Lanes, Final Sat.

Capacity Analysis Module: Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #30 MacArther Blvd./ Lake Shore Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.693  
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 23.7  
Optimal Cycle: 76 Level Of Service: C

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North, South, East, West bounds.

Volume Module: >> Count Date: 9 Jul 2003 <<. Table with columns: Sat/Lane, Adj, Lanes, Final Sat.

Saturation Flow Module: Table with columns: Sat/Lane, Adj, Lanes, Final Sat.

Capacity Analysis Module: Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.



Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #31 Lake Park Ave./ Lake Shore Ave.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.744  
Loss Time (sec): 16 (Y+R = 12 sec) Average Delay (sec/veh): 34.9  
Optimal Cycle: 82 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control (Split Phase, Protected, Permitted), Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 17 Jul 2003 <<  
Base Vol: 360 456 227 75 0 81 269 459 0 0 336 212  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 360 456 227 75 0 81 269 459 0 0 336 212  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97  
PHF Volume: 372 471 235 77 0 84 278 474 0 0 347 219  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 372 471 235 77 0 84 278 474 0 0 347 219  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 372 471 235 77 0 84 278 474 0 0 347 219

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.95 1.00 0.85 0.95 1.00 0.85 0.95 0.95 1.00 1.00 0.89 0.89  
Lanes: 1.00 1.00 1.00 1.00 0.00 1.00 1.00 2.00 0.00 0.00 1.23 0.77  
Final Sat.: 1805 1900 1615 1805 0 1615 1805 3610 0 0 2085 1316

Capacity Analysis Module:  
Vol/Sat: 0.21 0.25 0.15 0.04 0.00 0.05 0.15 0.13 0.00 0.00 0.17 0.17  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.28 0.28 0.28 0.09 0.00 0.09 0.17 0.45 0.00 0.00 0.28 0.28  
Volume/Cap: 0.73 0.88 0.52 0.48 0.00 0.58 0.88 0.29 0.00 0.00 0.60 0.60  
Delay/Veh: 34.8 46.8 28.3 41.3 0.0 45.4 60.2 15.6 0.0 0.0 29.2 29.2  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 34.8 46.8 28.3 41.3 0.0 45.4 60.2 15.6 0.0 0.0 29.2 29.2  
DesignQueue: 14 18 9 4 0 4 12 13 0 0 13 8

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #32 Brush St./ 18th St.

Cycle (sec): 70 Critical Vol./Cap. (X): 0.267  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 9.4  
Optimal Cycle: 61 Level Of Service: A

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control (Permitted, Permitted, Permitted, Permitted), Rights, Min. Green, and Lanes.

Volume Module:  
Base Vol: 0 0 0 0 1000 84 0 0 0 0 150 196 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 0 0 0 1000 84 0 0 0 0 150 196 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 0 0 0 0 1111 93 0 0 0 0 167 218 0  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 0 0 0 1111 93 0 0 0 0 167 218 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 0 0 0 0 1111 93 0 0 0 0 167 218 0

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 1.00 1.00 1.00 0.90 0.90 1.00 1.00 1.00 1.00 0.85 0.95 1.00  
Lanes: 0.00 0.00 0.00 0.00 3.69 0.31 0.00 0.00 0.00 0.00 1.00 2.00 0.00  
Final Sat.: 0 0 0 0 6304 529 0 0 0 0 1615 3610 0

Capacity Analysis Module:  
Vol/Sat: 0.00 0.00 0.00 0.00 0.18 0.18 0.00 0.00 0.00 0.10 0.06 0.00  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.00 0.00 0.00 0.00 0.66 0.66 0.00 0.00 0.00 0.23 0.23 0.00  
Volume/Cap: 0.00 0.00 0.00 0.00 0.27 0.27 0.00 0.00 0.00 0.46 0.27 0.00  
Delay/Veh: 0.0 0.0 0.0 0.0 4.9 4.9 0.0 0.0 0.0 24.3 22.5 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 0.0 0.0 0.0 4.9 4.9 0.0 0.0 0.0 24.3 22.5 0.0  
DesignQueue: 0 0 0 0 15 1 0 0 0 5 7 0

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #33 18th St./ Castro St.

Cycle (sec): 40 Critical Vol./Cap. (X): 0.755  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 14.0  
Optimal Cycle: 44 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 16 columns and 16 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 16 columns and 4 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 16 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #34 MLK Jr. Way/ 18th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.316  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 11.9  
Optimal Cycle: 62 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 16 columns and 16 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 16 columns and 4 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 16 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #35 Brush St. / 17th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.333  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 10.0  
Optimal Cycle: 48 Level Of Service: E

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns and 12 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns and 5 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #36 17th St / Castro St

Cycle (sec): 85 Critical Vol./Cap. (X): 0.704  
Loss Time (sec): 12 (Y+R = 6 sec) Average Delay (sec/veh): 28.1  
Optimal Cycle: 62 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns and 12 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns and 5 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #37 MLK Jr. Way/ 17th St

Cycle (sec): 60 Critical Vol./Cap. (X): 0.195  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 10.6  
Optimal Cycle: 58 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 25 0 0 25 0 0 25 0 0 0 0 0  
Lanes: 0 0 1 1 0 0 1 1 0 0 1 2 1 0 0 0 0 0 0

Volume Module: >> Count Date: 8 Jul 2003 <<  
Base Vol: 0 170 29 21 191 0 10 478 45 0 0 0 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 170 29 21 191 0 10 478 45 0 0 0 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 0 189 32 23 212 0 11 531 50 0 0 0 0  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 189 32 23 212 0 11 531 50 0 0 0 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 0 189 32 23 212 0 11 531 50 0 0 0 0

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 0.93 0.93 0.80 0.80 1.00 0.85 0.85 0.85 1.00 1.00 1.00  
Lanes: 0.00 1.71 0.29 0.20 1.80 0.00 0.07 3.59 0.34 0.00 0.00 0.00  
Final Sat.: 0 3016 515 301 2738 0 122 5816 547 0 0 0 0

Capacity Analysis Module:  
Vol/Sat: 0.00 0.06 0.06 0.08 0.08 0.00 0.09 0.09 0.09 0.00 0.00 0.00  
Crit Moves: \*\*\*\*\*  
Green/Cycle: 0.00 0.42 0.42 0.42 0.42 0.00 0.45 0.45 0.45 0.00 0.00 0.00  
Volume/Cap: 0.00 0.15 0.15 0.19 0.19 0.00 0.20 0.20 0.20 0.00 0.00 0.00  
Delay/Veh: 0.0 11.1 11.1 11.4 11.4 0.0 10.1 10.1 10.1 0.0 0.0 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 11.1 11.1 11.4 11.4 0.0 10.1 10.1 10.1 0.0 0.0 0.0  
DesignQueue: 0 4 1 0 4 0 0 0 10 1 0 0 0 0

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #38 Jefferson St./ 17th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.182  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 10.3  
Optimal Cycle: 59 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 25 0 0 25 0 0 26 0 0 0 0 0  
Lanes: 0 0 1 1 0 0 1 1 0 0 1 2 1 0 0 0 0 0 0

Volume Module: >> Count Date: 8 Jul 2003 <<  
Base Vol: 0 157 52 7 57 0 24 429 44 0 0 0 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 157 52 7 57 0 24 429 44 0 0 0 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 0 174 58 8 63 0 27 477 49 0 0 0 0  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 174 58 8 63 0 27 477 49 0 0 0 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 0 174 58 8 63 0 27 477 49 0 0 0 0

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 0.85 0.85 0.81 0.81 1.00 0.85 0.85 0.85 1.00 1.00 1.00  
Lanes: 0.00 1.50 0.50 0.22 1.78 0.00 0.19 3.46 0.35 0.00 0.00 0.00  
Final Sat.: 0 2416 800 335 2730 0 313 5597 574 0 0 0 0

Capacity Analysis Module:  
Vol/Sat: 0.00 0.07 0.07 0.02 0.02 0.00 0.09 0.09 0.09 0.00 0.00 0.00  
Crit Moves: \*\*\*\*\*  
Green/Cycle: 0.00 0.42 0.42 0.42 0.42 0.00 0.45 0.45 0.45 0.00 0.00 0.00  
Volume/Cap: 0.00 0.17 0.17 0.06 0.06 0.00 0.19 0.19 0.19 0.00 0.00 0.00  
Delay/Veh: 0.0 11.1 11.1 10.5 10.5 0.0 10.0 10.0 10.0 0.0 0.0 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 11.1 11.1 10.5 10.5 0.0 10.0 10.0 10.0 0.0 0.0 0.0  
DesignQueue: 0 3 1 0 1 0 0 0 9 1 0 0 0 0

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #39 Franklin St./ 17th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.385  
Loss Time (sec): 8 (Y+R = 7 sec) Average Delay (sec/veh): 12.5  
Optimal Cycle: 45 Level Of Service: B

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 8 Jul 2003 <<  
Base Vol: 0 440 109 0 0 0 120 455 0 0 0 0 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 440 109 0 0 0 120 455 0 0 0 0 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91  
PHF Volume: 0 484 120 0 0 0 132 500 0 0 0 0 0  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 484 120 0 0 0 132 500 0 0 0 0 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 0 484 120 0 0 0 132 500 0 0 0 0 0

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 0.85 0.85 1.00 1.00 1.00 0.75 0.75 1.00 1.00 1.00 1.00  
Lanes: 0.00 3.21 0.79 0.00 0.00 0.00 0.42 1.58 0.00 0.00 0.00 0.00  
Final Sat.: 0 5175 1282 0 0 0 592 2246 0 0 0 0 0

Capacity Analysis Module:  
Vol/Sat: 0.00 0.09 0.09 0.00 0.00 0.00 0.22 0.22 0.00 0.00 0.00 0.00  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.00 0.51 0.51 0.00 0.00 0.00 0.31 0.31 0.00 0.00 0.00 0.00  
Volume/Cap: 0.00 0.18 0.18 0.00 0.00 0.00 0.72 0.72 0.00 0.00 0.00 0.00  
Delay/Veh: 0.0 6.1 6.1 0.0 0.0 0.0 18.7 18.7 0.0 0.0 0.0 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 6.1 6.1 0.0 0.0 0.0 18.7 18.7 0.0 0.0 0.0 0.0  
DesignQueue: 0 6 1 0 0 0 2 9 0 0 0 0 0

Uptown Project Traffic Impact Analysis  
Existing Conditions PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Base Volume Alternative)

Intersection #40 Webster St./ 17th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.432  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 10.6  
Optimal Cycle: 47 Level Of Service: B

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 8 Jul 2003 <<  
Base Vol: 0 0 0 94 700 0 0 354 219 0 0 0 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 0 0 94 700 0 0 354 219 0 0 0 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 0 0 0 104 778 0 0 393 243 0 0 0 0  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 0 0 104 778 0 0 393 243 0 0 0 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 0 0 0 104 778 0 0 393 243 0 0 0 0

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 1.00 1.00 0.74 0.74 1.00 1.00 0.83 0.83 1.00 1.00 1.00  
Lanes: 0.00 0.00 0.00 0.47 3.53 0.00 0.00 1.24 0.76 0.00 0.00 0.00  
Final Sat.: 0 0 0 670 4988 0 0 1945 1204 0 0 0 0

Capacity Analysis Module:  
Vol/Sat: 0.00 0.00 0.00 0.16 0.16 0.00 0.00 0.20 0.20 0.00 0.00 0.00  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.00 0.00 0.00 0.47 0.47 0.00 0.00 0.36 0.36 0.00 0.00 0.00  
Volume/Cap: 0.00 0.00 0.00 0.33 0.33 0.00 0.00 0.56 0.56 0.00 0.00 0.00  
Delay/Veh: 0.0 0.0 0.0 8.2 8.2 0.0 0.0 14.0 14.0 0.0 0.0 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 0.0 0.0 8.2 8.2 0.0 0.0 14.0 14.0 0.0 0.0 0.0  
DesignQueue: 0 0 0 1 11 0 0 7 4 0 0 0 0

LEVEL OF SERVICE CALCULATION WORKSHEETS  
EXISTING PLUS PROJECT CONDITIONS

Uptown Traffic Impact Analysis
Existing plus Project - AM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #1 San Pablo Ave./ 31st St.

Cycle (sec): 75 Critical Vol./Cap. (X): 0.224
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 9.1
Optimal Cycle: 75 Level Of Service: A

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 9 Jul 2003 <<. Table with 4 columns: Approach and Movement. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, Reduct Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module: Table with 4 columns: Approach and Movement. Rows include Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 4 columns: Approach and Movement. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Traffic Impact Analysis
Existing plus Project - AM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #2 San Pablo Ave./ Market St.

Cycle (sec): 75 Critical Vol./Cap. (X): 0.280
Loss Time (sec): 8 (Y+R = 10 sec) Average Delay (sec/veh): 9.2
Optimal Cycle: 73 Level Of Service: A

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 9 Jul 2003 <<. Table with 4 columns: Approach and Movement. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, Reduct Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module: Table with 4 columns: Approach and Movement. Rows include Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with 4 columns: Approach and Movement. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Traffic Impact Analysis
Existing plus Project - AM Peak Hour

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #3 San Pablo Ave. / 27th

Cycle (sec): 75 Critical Vol./Cap. (X): 0.254
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 9.6
Optimal Cycle: 75 Level Of Service: A

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with columns for Volume Module: >> Count Date: 1 Jan 2003 <<. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Table for Saturation Flow Module with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Table for Capacity Analysis Module with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Traffic Impact Analysis
Existing plus Project - AM Peak Hour

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #4 San Pablo Ave./ West St.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.277
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 20.3
Optimal Cycle: 83 Level Of Service: C

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with columns for Volume Module: >> Count Date: 9 Jul 2003 <<. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Table for Saturation Flow Module with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Table for Capacity Analysis Module with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.



Uptown Traffic Impact Analysis
Existing plus Project - AM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #5 San Pablo Ave./ Grand Ave

Cycle (sec): 80 Critical Vol./Cap. (X): 0.456
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 15.7
Optimal Cycle: 80 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L-T-R), Control (Permitted), Rights (Include), and Lanes.

Volume Module table with 12 columns representing different traffic flows and 12 rows of volume data.

Saturation Flow Module table with 12 columns and 5 rows of saturation flow data.

Capacity Analysis Module table with 12 columns and 10 rows of capacity analysis data.

Uptown Traffic Impact Analysis
Existing plus Project - AM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #6 San Pablo Ave./ 20th St.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.440
Loss Time (sec): 12 (Y+R = 16 sec) Average Delay (sec/veh): 20.9
Optimal Cycle: 87 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L-T-R), Control (Permitted, Ignore), Rights (Include), and Lanes.

Volume Module table with 12 columns representing different traffic flows and 12 rows of volume data.

Saturation Flow Module table with 12 columns and 5 rows of saturation flow data.

Capacity Analysis Module table with 12 columns and 10 rows of capacity analysis data.

Uptown Traffic Impact Analysis
Existing plus Project - AM Peak Hour

Level Of Service Computation Report
1997 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 San Pablo / William St

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Table with 12 columns for volume counts. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Vol.

Table with 12 columns for critical gap module. Rows include Critical Gap, FollowUpTim, and Capacity Module.

Table with 12 columns for capacity module. Rows include Cnflct Vol, Potent Cap., and Move Cap.

Table with 12 columns for level of service module. Rows include Stopped Del, LOS by Move, Movement, Shared Cap., Shrd StpDel, Shared LOS, ApproachDel, and ApproachLOS.

Uptown Traffic Impact Analysis
Existing plus Project - AM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #8 San Pablo Ave./ 19th St.

Cycle (sec): 75 Critical Vol./Cap. (X): 0.321

Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 20.3

Optimal Cycle: 74 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Table with 12 columns for volume counts. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns for saturation flow module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for capacity analysis module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Traffic Impact Analysis
Existing plus Project - AM Peak Hour

Level Of Service Computation Report
1997 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 San Pablo / 18th

Average Delay (sec/veh): 3.1 Worst Case Level of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Vol.

Critical Gap Module table with columns for Critical Gp, FollowUpTim.

Capacity Module table with columns for Cnflct Vol, Potent Cap., Move Cap.

Level Of Service Module table with columns for Stopped Del, LOS by Move, Movement, Shared Cap., Shrd StpDel, Shared LOS, ApproachDel, ApproachLOS.

Uptown Traffic Impact Analysis
Existing plus Project - AM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #10 San Pablo /17th/Clay

Cycle (sec): 80 Critical Vol./Cap. (X): 0.338

Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 19.7

Optimal Cycle: 62 Level of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Lanes, Min. Green.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, Uptown, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Traffic Impact Analysis  
Existing plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #11 Telegraph Ave./ W. Grand Ave.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.732  
Loss Time (sec): 12 (Y+R = 6 sec) Average Delay (sec/veh): 24.6  
Optimal Cycle: 55 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit Include			Permitted Include			Permitted Include			Permitted Include		
Min. Green:	6	20	0	0	20	0	0	15	0	0	15	0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	77	225	21	64	339	70	107	779	300	99	515	41
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	77	225	21	64	339	70	107	779	300	99	515	41
Added Vol:	47	19	118	0	5	0	1	9	26	29	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	124	244	139	64	344	70	108	788	326	128	515	41
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	131	257	146	67	362	74	114	829	343	135	542	43
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	131	257	146	67	362	74	114	829	343	135	542	43
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	131	257	146	67	362	74	114	829	343	135	542	43

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	0.57	0.90	0.90	0.50	0.93	0.93	0.35	0.91	0.91	0.18	0.94	0.94
Lanes:	1.00	1.27	0.73	1.00	1.66	0.34	1.00	1.41	0.59	1.00	1.85	0.15
Final Sat.:	1074	2176	1239	948	2925	595	671	2441	1010	346	3307	263

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	0.12	0.12	0.12	0.07	0.12	0.12	0.17	0.34	0.34	0.39	0.16	0.16
Green/Cycle:	0.43	0.43	0.43	0.33	0.33	0.33	0.37	0.37	0.37	0.37	0.37	0.37
Volume/Cap:	0.28	0.27	0.27	0.21	0.37	0.37	0.46	0.93	0.93	1.06	0.45	0.45
Delay/Veh:	10.7	11.0	11.0	14.7	15.4	15.4	15.9	29.9	29.9	116.7	14.6	14.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.7	11.0	11.0	14.7	15.4	15.4	15.9	29.9	29.9	116.7	14.6	14.6
DesignQueue:	4	5	3	2	8	2	2	19	8	3	12	1

Uptown Traffic Impact Analysis  
Existing plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #12 Telegraph Ave./ 20th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.602  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 23.6  
Optimal Cycle: 47 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Min. Green:	0	17	0	0	17	0	0	22	0	0	22	0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	25	313	26	197	419	73	15	66	34	60	148	77
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	25	313	26	197	419	73	15	66	34	60	148	77
Added Vol:	8	69	16	0	35	17	44	26	37	3	6	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	33	382	42	197	454	90	59	92	71	63	154	78
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.94	0.94	0.94	0.90	0.90	0.90	0.93	0.93	0.93
PHF Volume:	35	411	45	210	483	96	66	102	79	68	166	84
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	411	45	210	483	96	66	102	79	68	166	84
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	35	411	45	210	483	96	66	102	79	68	166	84

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	0.40	0.84	0.84	0.29	0.86	0.86	0.68	0.68	0.68	0.71	0.71	0.71
Lanes:	1.00	0.90	0.10	1.00	1.67	0.33	0.53	0.83	0.64	0.43	1.04	0.53
Final Sat.:	754	1433	158	547	2717	539	689	1074	829	580	1417	718

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	0.05	0.29	0.29	0.38	0.18	0.18	0.10	0.10	0.10	0.12	0.12	0.12
Green/Cycle:	0.36	0.36	0.36	0.36	0.36	0.36	0.47	0.47	0.47	0.47	0.47	0.47
Volume/Cap:	0.13	0.79	0.79	1.06	0.49	0.49	0.20	0.20	0.20	0.25	0.25	0.25
Delay/Veh:	11.0	24.1	24.1	95.4	13.1	13.1	7.7	7.7	7.7	8.0	8.0	8.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.0	24.1	24.1	95.4	13.1	13.1	7.7	7.7	7.7	8.0	8.0	8.0
DesignQueue:	1	7	1	4	8	2	1	1	1	1	2	1

Uptown Traffic Impact Analysis
Existing plus Project - AM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #13 Telegraph / William St

Cycle (sec): 45 Critical Vol./Cap. (X): 0.618
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 7.7
Optimal Cycle: 35 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights. Includes Min. Green and Lanes data.

Volume Module: >> Count Date: 30 Jul 2003 <<. Grid of traffic volume data for various approaches and movements.

Saturation Flow Module: Grid of saturation flow data for different lane configurations.

Capacity Analysis Module: Grid of capacity analysis data including Vol/Sat, Crit Moves, Green/Cycle, etc.

Uptown Traffic Impact Analysis
Existing plus Project - AM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #14 Telegraph Ave. / 19th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.703
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 45.1
Optimal Cycle: 45 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights. Includes Min. Green and Lanes data.

Volume Module: Grid of traffic volume data for various approaches and movements.

Saturation Flow Module: Grid of saturation flow data for different lane configurations.

Capacity Analysis Module: Grid of capacity analysis data including Vol/Sat, Crit Moves, Green/Cycle, etc.

Uptown Traffic Impact Analysis  
Existing plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #15 Telegraph / 18th

Cycle (sec): 45 Critical Vol./Cap. (X): 0.415  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 7.3  
Optimal Cycle: 26 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 10 0 10 0 0 0 0  
Lanes: 1 0 1 0 0 0 0 1 0 0 0 0 0 0 0

Volume Module: >> Count Date: 30 Jul 2003 <<  
Base Vol: 34 405 0 0 305 12 20 0 4 0 0 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 34 405 0 0 305 12 20 0 4 0 0 0  
Added Vol: 3 19 0 0 54 0 39 0 23 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 37 424 0 0 359 12 59 0 27 0 0 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 41 471 0 0 399 13 66 0 30 0 0 0  
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 41 471 0 0 399 13 66 0 30 0 0 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 41 471 0 0 399 13 66 0 30 0 0 0

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.71 1.00 1.00 1.00 0.90 0.90 0.54 1.00 0.54 1.00 1.00 1.00  
Lanes: 1.00 1.00 0.00 0.00 0.97 0.03 0.69 0.00 0.31 0.00 0.00 0.00  
Final Sat.: 1339 1900 0 0 1647 55 702 0 321 0 0 0

Capacity Analysis Module:  
Vol/Sat: 0.03 0.25 0.00 0.00 0.24 0.24 0.09 0.00 0.09 0.00 0.00 0.00  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.60 0.60 0.00 0.00 0.60 0.60 0.22 0.00 0.22 0.00 0.00 0.00  
Volume/Cap: 0.05 0.42 0.00 0.00 0.41 0.41 0.42 0.00 0.42 0.00 0.00 0.00  
Delay/Veh: 3.9 6.0 0.0 0.0 6.0 6.0 20.3 0.0 20.3 0.0 0.0 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 3.9 6.0 0.0 0.0 6.0 6.0 20.3 0.0 20.3 0.0 0.0 0.0  
DesignQueue: 0 5 0 0 4 0 1 0 1 0 0 0

Uptown Traffic Impact Analysis  
Existing plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #16 Telegraph Ave./ 17th St.

Cycle (sec): 40 Critical Vol./Cap. (X): 0.479  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 11.4  
Optimal Cycle: 38 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 20 0 0 20 0 0 10 0 0 0 0 0  
Lanes: 0 0 1 1 0 1 0 1 0 0 0 1 1 1 0 0 0 0 0 0

Volume Module:  
Base Vol: 0 258 5 77 194 0 155 698 73 0 0 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 258 5 77 194 0 155 698 73 0 0 0  
Added Vol: 0 12 0 43 34 0 10 22 17 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 0 270 5 120 228 0 165 720 90 0 0 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 0 300 6 133 253 0 183 800 100 0 0 0  
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 300 6 133 253 0 183 800 100 0 0 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 0 300 6 133 253 0 183 800 100 0 0 0

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 0.88 0.88 0.57 0.85 1.00 0.84 0.84 0.84 1.00 1.00 1.00  
Lanes: 0.00 1.96 0.04 1.00 1.00 0.00 0.51 2.21 0.28 0.00 0.00 0.00  
Final Sat.: 0 3269 61 1081 1615 0 811 3538 442 0 0 0

Capacity Analysis Module:  
Vol/Sat: 0.00 0.09 0.09 0.12 0.16 0.00 0.23 0.23 0.23 0.00 0.00 0.00  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.00 0.50 0.50 0.50 0.50 0.00 0.30 0.30 0.30 0.00 0.00 0.00  
Volume/Cap: 0.00 0.18 0.18 0.25 0.31 0.00 0.75 0.75 0.75 0.00 0.00 0.00  
Delay/Veh: 0.0 5.6 5.6 5.9 6.2 0.0 15.0 15.0 15.0 0.0 0.0 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 5.6 5.6 5.9 6.2 0.0 15.0 15.0 15.0 0.0 0.0 0.0  
DesignQueue: 0 3 0 0 2 3 0 3 13 2 0 0 0

Uptown Traffic Impact Analysis  
Existing plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #17 Broadway/ W. Grand Ave.  
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Cycle (sec): 85 Critical Vol./Cap. (X): 0.827  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 25.3  
Optimal Cycle: 87 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Rights:												
Min. Green:	0	37	0	0	37	0	0	42	0	0	42	0
Lanes:	1	0	2	0	1	1	0	1	1	0	1	0

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	119	421	39	89	861	81	115	492	124	27	439	95
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	119	421	39	89	861	81	115	492	124	27	439	95
Added Vol:	0	5	5	0	2	5	22	106	0	2	24	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	119	426	44	89	863	86	137	598	124	29	463	95
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	132	473	49	99	959	96	152	664	138	32	514	106
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	132	473	49	99	959	96	152	664	138	32	514	106
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	132	473	49	99	959	96	152	664	138	32	514	106

Saturation Flow Module:

	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.14	0.95	0.72	0.43	0.87	0.87	0.34	0.86	0.86	0.76	0.76	0.76
Lanes:	1.00	2.00	1.00	1.00	1.82	0.18	1.00	1.66	0.34	0.10	1.58	0.32
Final Sat.:	262	3610	1373	807	2994	298	637	2694	559	143	2280	468

Capacity Analysis Module:

	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.50	0.13	0.04	0.12	0.32	0.32	0.24	0.25	0.25	0.23	0.23	0.23
Crit Moves:	****			****			****			****		
Green/Cycle:	0.43	0.43	0.43	0.43	0.43	0.43	0.48	0.48	0.48	0.48	0.48	0.48
Volume/Cap:	1.19	0.31	0.08	0.29	0.75	0.75	0.50	0.51	0.51	0.47	0.47	0.47
Delay/Veh:	168.6	17.1	15.2	18.5	24.9	24.9	20.9	16.6	16.6	16.2	16.2	16.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	168.6	17.1	15.2	18.5	24.9	24.9	20.9	16.6	16.6	16.2	16.2	16.2
DesignQueue:	4	14	1	3	29	3	4	18	4	1	13	3

Uptown Traffic Impact Analysis  
Existing plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #18 Broadway/ 20th St.  
\*\*\*\*\*

Cycle (sec): 45 Critical Vol./Cap. (X): 0.483  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 11.8  
Optimal Cycle: 43 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Rights:												
Min. Green:	0	15	0	0	15	0	0	20	0	0	20	0
Lanes:	0	1	0	1	0	1	0	1	0	0	1	0

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	16	328	40	80	562	81	36	218	31	60	151	75
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	328	40	80	562	81	36	218	31	60	151	75
Added Vol:	0	0	0	0	1	3	10	32	0	1	7	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	16	328	40	80	563	84	46	250	31	61	158	75
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.90	0.90	0.90	0.89	0.89	0.89	0.90	0.90	0.90
PHF Volume:	17	353	43	89	626	93	52	281	35	68	176	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	17	353	43	89	626	93	52	281	35	68	176	83
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	17	353	43	89	626	93	52	281	35	68	176	83

Saturation Flow Module:

	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.69	0.69	0.69	0.46	0.75	0.75	0.66	0.66	0.66	0.61	0.61	0.61
Lanes:	0.08	1.71	0.21	1.00	1.74	0.26	0.28	1.53	0.19	0.41	1.08	0.51
Final Sat.:	109	2241	273	869	2496	372	353	1918	238	482	1247	592

Capacity Analysis Module:

	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.16	0.16	0.16	0.10	0.25	0.25	0.15	0.15	0.15	0.14	0.14	0.14
Crit Moves:	****			****			****			****		
Green/Cycle:	0.38	0.38	0.38	0.38	0.38	0.38	0.44	0.44	0.44	0.44	0.44	0.44
Volume/Cap:	0.42	0.42	0.42	0.27	0.66	0.66	0.33	0.33	0.33	0.32	0.32	0.32
Delay/Veh:	11.6	11.6	11.6	11.7	14.8	14.8	8.9	8.9	8.9	8.9	8.9	8.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.6	11.6	11.6	11.7	14.8	14.8	8.9	8.9	8.9	8.9	8.9	8.9
DesignQueue:	0	6	1	1	10	2	1	4	0	1	2	1

Uptown Traffic Impact Analysis
Existing plus Project - AM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #19 Broadway/ 19th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.330
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 13.0
Optimal Cycle: 60 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 21 0 0 21 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 1 1 0 0 0 0 2 1 0 0 0 0 0 0 0 0 1 0 1 0

Volume Module:

Base Vol: 22 346 0 0 518 64 0 0 0 27 278 78
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 22 346 0 0 518 64 0 0 0 27 278 78
Added Vol: 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0
Initial Fut: 22 346 0 0 518 65 0 0 0 27 293 78
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 24 384 0 0 576 72 0 0 0 30 326 87
Reduced Vol: 0
Reduced Vol: 24 384 0 0 576 72 0 0 0 30 326 87
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 24 384 0 0 576 72 0 0 0 30 326 87

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.76 0.76 1.00 1.00 0.81 0.81 1.00 1.00 1.00 0.81 0.81 0.81
Lanes: 0.12 1.88 0.00 0.00 2.67 0.33 0.00 0.00 0.00 0.14 1.47 0.39
Final Sat.: 172 2713 0 0 4077 512 0 0 0 208 2255 600

Capacity Analysis Module:

Vol/Sat: 0.14 0.14 0.00 0.00 0.14 0.14 0.00 0.00 0.00 0.14 0.14 0.14
Crit Moves: \*\*\*\*
Green/Cycle: 0.35 0.35 0.00 0.00 0.35 0.35 0.00 0.00 0.00 0.52 0.52 0.52
Volume/Cap: 0.40 0.40 0.00 0.00 0.40 0.40 0.00 0.00 0.00 0.28 0.28 0.28
Delay/Veh: 15.0 15.0 0.0 0.0 14.9 14.9 0.0 0.0 0.0 8.3 8.3 8.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 15.0 15.0 0.0 0.0 14.9 14.9 0.0 0.0 0.0 8.3 8.3 8.3
DesignQueue: 1 9 0 0 13 2 0 0 0 0 5 1

Uptown Traffic Impact Analysis
Existing plus Project - AM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #20 Broadway/ 17th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.564
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 14.7
Optimal Cycle: 60 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 27 0 0 27 0 0 25 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 1 1 0 0 0 1 2 0 0 1 0 1 1 0 0 0 0 0 0 0

Volume Module:

Base Vol: 0 247 79 100 483 0 76 703 30 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 247 79 100 483 0 76 703 30 0 0 0 0
Added Vol: 0 0 0 0 0 0 0 0 64 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0
Initial Fut: 0 247 79 100 483 0 76 767 30 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 274 88 111 537 0 84 852 33 0 0 0 0
Reduced Vol: 0
Reduced Vol: 0 274 88 111 537 0 84 852 33 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 274 88 111 537 0 84 852 33 0 0 0 0

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.74 0.74 0.62 0.62 1.00 0.89 0.76 0.76 1.00 1.00 1.00
Lanes: 0.00 1.52 0.48 0.51 2.49 0.00 1.00 1.92 0.08 0.00 0.00 0.00
Final Sat.: 0 2136 683 602 2909 0 1700 2797 109 0 0 0 0

Capacity Analysis Module:

Vol/Sat: 0.00 0.13 0.13 0.18 0.18 0.00 0.05 0.30 0.30 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.45 0.45 0.45 0.45 0.00 0.42 0.42 0.42 0.00 0.00 0.00
Volume/Cap: 0.00 0.29 0.29 0.41 0.41 0.00 0.12 0.73 0.73 0.00 0.00 0.00
Delay/Veh: 0.0 11.0 11.0 11.9 11.9 0.0 11.1 18.6 18.6 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 11.0 11.0 11.9 11.9 0.0 11.1 18.6 18.6 0.0 0.0 0.0
DesignQueue: 0 5 2 2 10 0 2 18 1 0 0 0



Uptown Traffic Impact Analysis
Existing plus Project - AM Peak Hour

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #21 Broadway/ 15th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.345
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 6.9
Optimal Cycle: 33 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 25 0 0 25 0 0 0 0 0 0 0 0
Lanes: 0 1 1 0 0 0 0 2 0 0 0 0 0 2

Volume Module:

Base Vol: 0 492 0 0 0 531 0 0 0 0 0 0 0 162
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 492 0 0 0 531 0 0 0 0 0 0 0 162
Added Vol: 0 12 0 0 0 51 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 504 0 0 0 582 0 0 0 0 0 0 0 162
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 560 0 0 0 647 0 0 0 0 0 0 0 180
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 560 0 0 0 647 0 0 0 0 0 0 0 180
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 560 0 0 0 647 0 0 0 0 0 0 0 180

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.77 1.00 1.00 0.77 1.00 1.00 1.00 1.00 1.00 1.00 0.61
Lanes: 0.00 2.00 0.00 0.00 2.00 0.00 0.00 0.00 0.00 0.00 0.00 2.00
Final Sat.: 0 2924 0 0 0 2924 0 0 0 0 0 0 0 2302

Capacity Analysis Module:

Vol/Sat: 0.00 0.19 0.00 0.00 0.22 0.00 0.00 0.00 0.00 0.00 0.00 0.08
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.64 0.00 0.00 0.64 0.00 0.00 0.00 0.00 0.00 0.00 0.23
Volume/Cap: 0.00 0.30 0.00 0.00 0.35 0.00 0.00 0.00 0.00 0.00 0.00 0.35
Delay/Veh: 0.0 4.9 0.0 0.0 5.1 0.0 0.0 0.0 0.0 0.0 0.0 19.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 4.9 0.0 0.0 5.1 0.0 0.0 0.0 0.0 0.0 0.0 19.9
DesignQueue: 0 7 0 0 8 0 0 0 0 0 0 0 5

\*\*\*\*\*

Uptown Traffic Impact Analysis
Existing plus Project - AM Peak Hour

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #22 Broadway/ 14th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.480
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 12.7
Optimal Cycle: 60 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 29 0 0 29 0 0 23 0 0 23 0 0
Lanes: 0 0 1 1 0 0 0 2 1 0 0 0 1 1 0

Volume Module:

Base Vol: 0 364 58 0 611 121 0 231 129 0 403 127
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 364 58 0 611 121 0 231 129 0 403 127
Added Vol: 0 5 0 0 0 51 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 369 58 0 662 121 0 231 129 0 403 134
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 410 64 0 736 134 0 257 143 0 448 149
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 410 64 0 736 134 0 257 143 0 448 149
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 410 64 0 736 134 0 257 143 0 448 149

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.75 0.75 1.00 0.75 0.75 1.00 0.73 0.73 1.00 0.74 0.74
Lanes: 0.00 1.73 0.27 0.00 2.54 0.46 0.00 1.28 0.72 0.00 1.50 0.50
Final Sat.: 0 2476 389 0 3599 658 0 1775 991 0 2113 703

Capacity Analysis Module:

Vol/Sat: 0.00 0.17 0.17 0.00 0.20 0.20 0.00 0.14 0.14 0.00 0.21 0.21
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.48 0.48 0.00 0.48 0.48 0.00 0.38 0.38 0.00 0.38 0.38
Volume/Cap: 0.00 0.34 0.34 0.00 0.42 0.42 0.00 0.38 0.38 0.00 0.55 0.55
Delay/Veh: 0.0 10.3 10.3 0.0 10.7 10.7 0.0 14.4 14.4 0.0 16.5 16.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 10.3 10.3 0.0 10.7 10.7 0.0 14.4 14.4 0.0 16.5 16.5
DesignQueue: 0 7 1 0 13 2 0 5 3 0 10 3

\*\*\*\*\*

Uptown Traffic Impact Analysis  
Existing plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)  
Intersection #23 Frontage Rd./ W. Grand Ave.  
Cycle (sec): 90 Critical Vol./Cap. (X): 0.694  
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 30.6  
Optimal Cycle: 66 Level Of Service: C  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Split Phase Split Phase Protected Protected  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 7 0 0 4 0 0 0  
Lanes: 1 0 1 1 0 0 1 0 0 1 0 1 1 0  
Volume Module:  
Base Vol: 51 127 138 156 122 49 56 308 48 104 532 244  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 51 127 138 156 122 49 56 308 48 104 532 244  
Added Vol: 0 0 0 0 0 0 0 22 0 0 95 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 51 127 138 156 122 49 56 330 48 104 627 244  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95  
PHF Volume: 54 134 145 164 128 52 59 347 51 109 660 257  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 54 134 145 164 128 52 59 347 51 109 660 257  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 54 134 145 164 128 52 59 347 51 109 660 257  
Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.90 0.83 0.83 0.93 0.93 0.81 0.90 0.89 0.89 0.90 0.87 0.87  
Lanes: 1.00 1.00 1.00 0.56 0.44 1.00 1.00 1.75 0.25 1.00 1.44 0.56  
Final Sat.: 1718 1584 1584 988 772 1537 1718 2943 428 1718 2370 922  
Capacity Analysis Module:  
Vol/Sat: 0.03 0.08 0.09 0.17 0.17 0.03 0.03 0.12 0.12 0.06 0.28 0.28  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.13 0.13 0.13 0.23 0.23 0.23 0.08 0.30 0.30 0.16 0.39 0.39  
Volume/Cap: 0.25 0.66 0.72 0.72 0.72 0.15 0.44 0.39 0.39 0.39 0.72 0.72  
Delay/Veh: 36.0 41.4 44.2 38.1 38.1 27.7 41.9 25.1 25.1 34.6 25.5 25.5  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 36.0 41.4 44.2 38.1 38.1 27.7 41.9 25.1 25.1 34.6 25.5 25.5  
DesignQueue: 2 6 6 7 5 2 3 12 2 5 22 8

Uptown Traffic Impact Analysis  
Existing plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)  
Intersection #24 Mandela Pkwy/ W. Grand Ave.  
Cycle (sec): 120 Critical Vol./Cap. (X): 0.324  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 17.0  
Optimal Cycle: 118 Level Of Service: B  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 35 0 0 35 0 0 75 0 0 75 0  
Lanes: 0 1 0 1 0 0 1 0 1 0 1 0 1 0 1 0  
Volume Module:  
Base Vol: 65 91 83 16 141 144 113 334 71 171 558 31  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 65 91 83 16 141 144 113 334 71 171 558 31  
Added Vol: 0 0 0 0 0 0 0 22 0 0 95 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 65 91 83 16 141 144 113 356 71 171 653 31  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Volume: 65 91 83 16 141 144 113 356 71 171 653 31  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 65 91 83 16 141 144 113 356 71 171 653 31  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 65 91 83 16 141 144 113 356 71 171 653 31  
Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.66 0.66 0.66 0.78 0.78 0.78 0.33 0.88 0.88 0.46 0.90 0.90  
Lanes: 0.54 0.77 0.69 0.10 0.94 0.96 1.00 1.67 0.33 1.00 1.91 0.09  
Final Sat.: 682 955 871 157 1388 1417 628 2794 557 875 3258 155  
Capacity Analysis Module:  
Vol/Sat: 0.10 0.10 0.10 0.10 0.10 0.10 0.18 0.13 0.13 0.20 0.20 0.20  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.31 0.31 0.31 0.31 0.31 0.31 0.63 0.63 0.63 0.63 0.63 0.63  
Volume/Cap: 0.31 0.31 0.31 0.33 0.33 0.33 0.29 0.20 0.20 0.31 0.32 0.32  
Delay/Veh: 32.8 32.8 32.8 32.9 32.9 32.9 12.1 9.9 9.9 12.0 11.0 11.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 32.8 32.8 32.8 32.9 32.9 32.9 12.1 9.9 9.9 12.0 11.0 11.0  
DesignQueue: 3 4 4 1 7 7 3 9 2 4 17 1

Uptown Traffic Impact Analysis  
Existing plus Project - AM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)  
Intersection #25 Northgate Ave./ W. Grand Ave.  
Cycle (sec): 90 Critical Vol./Cap. (X): 0.430  
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 30.6  
Optimal Cycle: 72 Level Of Service: C  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Protected Protected Protected Protected  
Rights: Include Include Include Include  
Min. Green: 0 0 0 20 0 20 7 40 0 0 0 0  
Lanes: 0 0 0 0 2 0 0 1 1 0 2 0 0  
Volume Module: >> Count Date: 9 Nov 2000 <<  
Base Vol: 0 0 0 645 0 234 191 532 0 0 671 60  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 0 0 645 0 234 191 532 0 0 671 60  
Added Vol: 0 0 0 11 0 5 45 25 0 0 24 23  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 0 0 0 656 0 239 236 557 0 0 695 83  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95  
PHF Volume: 0 0 0 691 0 252 248 586 0 0 732 87  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 0 0 691 0 252 248 586 0 0 732 87  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 0 0 0 691 0 252 248 586 0 0 732 87  
Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 1.00 1.00 0.92 1.00 0.72 0.95 0.88 1.00 1.00 0.86 0.86  
Lanes: 0.00 0.00 0.00 2.00 0.00 1.00 1.00 2.00 0.00 0.00 1.79 0.21  
Final Sat.: 0 0 0 3502 0 1373 1805 3339 0 0 2935 351  
Capacity Analysis Module:  
Vol/Sat: 0.00 0.00 0.00 0.20 0.00 0.18 0.14 0.18 0.00 0.00 0.25 0.25  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.00 0.00 0.00 0.42 0.00 0.42 0.16 0.44 0.00 0.00 0.29 0.29  
Volume/Cap: 0.00 0.00 0.00 0.47 0.00 0.43 0.87 0.40 0.00 0.00 0.87 0.87  
Delay/Veh: 0.0 0.0 0.0 19.8 0.0 20.8 65.5 17.6 0.0 0.0 41.4 41.4  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 0.0 0.0 19.8 0.0 20.8 65.5 17.6 0.0 0.0 41.4 41.4  
DesignQueue: 0 0 0 21 0 8 11 17 0 0 28 3

Uptown Traffic Impact Analysis  
Existing plus Project - AM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)  
Intersection #26 Webster St./Grand Ave.  
Cycle (sec): 60 Critical Vol./Cap. (X): 0.620  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 19.0  
Optimal Cycle: 52 Level Of Service: B  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 20 0 0 15 0 9 15 0  
Lanes: 0 0 0 0 0 1 0 0 1 0 1 0 1 0  
Volume Module: >> Count Date: 8 Jul 2003 <<  
Base Vol: 0 0 0 17 203 21 53 355 321 120 424 32  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 0 0 17 203 21 53 355 321 120 424 32  
Added Vol: 0 0 0 0 0 0 0 0 110 0 0 26 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 0 0 0 17 203 21 53 465 321 120 450 32  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 1.00 1.00 1.00 0.90 0.90 0.90 0.94 0.94 0.94 0.97 0.97 0.97  
PHF Volume: 0 0 0 19 226 23 56 492 340 124 466 33  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 0 0 19 226 23 56 492 340 124 466 33  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 0 0 0 19 226 23 56 492 340 124 466 33  
Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 1.00 1.00 0.85 0.85 0.72 0.74 0.74 0.74 0.95 0.87 0.87  
Lanes: 0.00 0.00 0.00 0.08 0.92 1.00 0.13 1.11 0.76 1.00 1.87 0.13  
Final Sat.: 0 0 0 125 1490 1373 177 1552 1071 1805 3086 219  
Capacity Analysis Module:  
Vol/Sat: 0.00 0.00 0.00 0.15 0.15 0.02 0.32 0.32 0.32 0.07 0.15 0.15  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.00 0.00 0.00 0.33 0.33 0.33 0.38 0.38 0.38 0.15 0.53 0.53  
Volume/Cap: 0.00 0.00 0.00 0.45 0.45 0.05 0.83 0.83 0.83 0.46 0.28 0.28  
Delay/Veh: 0.0 0.0 0.0 18.5 18.5 13.8 24.1 24.1 24.1 28.8 8.1 8.1  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 0.0 0.0 18.5 18.5 13.8 24.1 24.1 24.1 28.8 8.1 8.1  
DesignQueue: 0 0 0 0 5 1 1 11 7 4 8 1

Uptown Traffic Impact Analysis  
Existing plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #27 Harrison St./ Grand Ave.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.639  
Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 23.7  
Optimal Cycle: 51 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Ovl Permitted Include Protected Include Protected Include  
Rights: Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 1 0 2 0 1 0 0 1 1 1 0 2 0 1 1 0

Volume Module: >> Count Date: 14 Nov 2000 <<

Base Vol: 63 717 244 8 1131 78 57 239 128 484 704 124  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 63 717 244 8 1131 78 57 239 128 484 704 124  
Added Vol: 0 5 0 0 1 5 22 88 0 0 21 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 63 722 244 8 1132 83 79 327 128 484 725 124  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95  
PHF Volume: 66 760 257 8 1192 87 83 344 135 509 763 131  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 66 760 257 8 1192 87 83 344 135 509 763 131  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 66 760 257 8 1192 87 83 344 135 509 763 131

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.14 0.95 0.85 0.84 0.84 0.84 0.92 0.91 0.91 0.92 0.93 0.93  
Lanes: 1.00 2.00 1.00 0.02 2.78 0.20 2.00 1.44 0.56 2.00 1.71 0.29  
Final Sat.: 264 3610 1615 31 4416 324 3502 2485 973 3502 3015 516

Capacity Analysis Module:

Vol/Sat: 0.25 0.21 0.16 0.27 0.27 0.27 0.02 0.14 0.14 0.15 0.25 0.25  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.42 0.42 0.65 0.42 0.42 0.42 0.04 0.22 0.22 0.23 0.41 0.41  
Volume/Cap: 0.59 0.50 0.24 0.64 0.64 0.64 0.62 0.64 0.64 0.64 0.62 0.62  
Delay/Veh: 28.5 19.3 6.7 21.3 21.3 21.3 51.5 33.9 33.9 33.2 22.1 22.1  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 28.5 19.3 6.7 21.3 21.3 21.3 51.5 33.9 33.9 33.2 22.1 22.1  
DesignQueue: 2 23 5 0 37 3 4 14 5 20 24 4

Uptown Traffic Impact Analysis  
Existing plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #28 El Embarcadero/ Grand Ave.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.472  
Loss Time (sec): 12 (Y+R = 8 sec) Average Delay (sec/veh): 19.4  
Optimal Cycle: 67 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Include Protected Include Permitted Ovl Protected Include  
Rights: Min. Green: 15 0 0 0 0 0 0 0 0 0 30 0 10 30 0  
Lanes: 1 0 0 0 1 0 0 0 0 0 0 2 0 1 1 0 2 0 0

Volume Module: >> Count Date: 9 Jul 2003 <<

Base Vol: 346 0 245 0 0 0 0 0 357 254 91 802 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 346 0 245 0 0 0 0 0 357 254 91 802 0  
Added Vol: 13 0 0 0 0 0 0 0 88 0 0 8 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 359 0 245 0 0 0 0 0 445 254 91 810 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.91 0.91 0.91 1.00 1.00 1.00 0.91 0.91 0.91 0.90 0.90 0.90  
PHF Volume: 394 0 269 0 0 0 0 0 486 278 101 900 0  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 394 0 269 0 0 0 0 0 486 278 101 900 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 394 0 269 0 0 0 0 0 486 278 101 900 0

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.95 1.00 0.85 1.00 1.00 1.00 1.00 0.95 0.68 0.95 0.85 1.00  
Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 2.00 1.00 1.00 2.00 0.00  
Final Sat.: 1805 0 1615 0 0 0 0 0 3610 1292 1805 3249 0

Capacity Analysis Module:

Vol/Sat: 0.22 0.00 0.17 0.00 0.00 0.00 0.00 0.13 0.21 0.06 0.28 0.00  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.42 0.00 0.42 0.00 0.00 0.00 0.00 0.33 0.76 0.11 0.44 0.00  
Volume/Cap: 0.52 0.00 0.39 0.00 0.00 0.00 0.00 0.40 0.28 0.50 0.62 0.00  
Delay/Veh: 19.8 0.0 18.4 0.0 0.0 0.0 0.0 23.3 3.6 39.7 20.1 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 19.8 0.0 18.4 0.0 0.0 0.0 0.0 23.3 3.6 39.7 20.1 0.0  
DesignQueue: 12 0 8 0 0 0 0 17 4 5 27 0

Uptown Traffic Impact Analysis
Existing plus Project - AM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #29 MacArther Blvd./ Grand Ave.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.627
Loss Time (sec): 12 (Y+R = 8 sec) Average Delay (sec/veh): 21.9
Optimal Cycle: 74 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 25 0 0 25 0 12 25 0
Lanes: 0 0 0 0 0 1 1 1 0 0 0 2 0 1 1 0 3 0 0
Volume Module: >> Count Date: 9 Nov 2000 <<
Base Vol: 0 0 0 278 512 188 0 551 150 277 1062 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 278 512 188 0 551 150 277 1062 0
Added Vol: 0 0 0 0 0 0 0 0 0 88 0 8 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 278 512 188 0 551 238 277 1070 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 0 0 293 539 198 0 580 251 292 1126 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 293 539 198 0 580 251 292 1126 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 293 539 198 0 580 251 292 1126 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.86 0.86 0.86 1.00 0.95 0.85 0.95 0.91 1.00
Lanes: 0.00 0.00 0.00 0.85 1.57 0.58 0.00 2.00 1.00 1.00 3.00 0.00
Final Sat.: 0 0 0 1390 2560 940 0 3610 1615 1805 5187 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.21 0.21 0.21 0.00 0.16 0.16 0.16 0.22 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.00 0.00 0.31 0.31 0.31 0.00 0.31 0.31 0.23 0.54 0.00
Volume/Cap: 0.00 0.00 0.00 0.67 0.67 0.67 0.00 0.51 0.50 0.72 0.40 0.00
Delay/Veh: 0.0 0.0 0.0 26.3 26.3 26.3 0.0 24.2 25.8 39.1 11.4 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 26.3 26.3 26.3 0.0 24.2 25.8 39.1 11.4 0.0
DesignQueue: 0 0 0 9 17 6 0 18 8 10 24 0

Uptown Traffic Impact Analysis
Existing plus Project - AM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #30 MacArther Blvd./ Lake Shore Ave.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.515
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 16.9
Optimal Cycle: 76 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Prot+Permit
Rights: Include Ignore Include Include
Min. Green: 0 0 0 0 0 22 0 0 30 0 12 30 0
Lanes: 0 0 0 0 0 1 1 2 0 1 0 0 2 0 1 1 0 2 0 0
Volume Module: >> Count Date: 9 Jul 2000 <<
Base Vol: 0 0 0 233 435 94 0 457 237 265 648 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 233 435 94 0 457 237 265 648 0
Added Vol: 0 0 0 0 88 0 0 0 0 0 13 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 233 523 94 0 457 237 265 661 0
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 0.90 0.90 0.00 0.95 0.95 0.95 0.90 0.90 0.90
PHF Volume: 0 0 0 258 579 0 0 479 249 294 733 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 258 579 0 0 479 249 294 733 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 258 579 0 0 479 249 294 733 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.77 0.77 1.00 1.00 0.95 0.85 0.56 0.95 1.00
Lanes: 0.00 0.00 0.00 1.23 2.77 1.00 0.00 2.00 1.00 1.00 2.00 0.00
Final Sat.: 0 0 0 1812 4067 1900 0 3610 1615 1056 3610 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.14 0.14 0.00 0.00 0.13 0.15 0.28 0.20 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.00 0.00 0.28 0.28 0.00 0.00 0.38 0.38 0.58 0.58 0.00
Volume/Cap: 0.00 0.00 0.00 0.52 0.52 0.00 0.00 0.35 0.41 0.48 0.35 0.00
Delay/Veh: 0.0 0.0 0.0 24.8 24.8 0.0 0.0 18.2 18.9 9.9 9.2 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 24.8 24.8 0.0 0.0 18.2 18.9 9.9 9.2 0.0
DesignQueue: 0 0 0 9 19 0 0 14 7 11 15 0

Uptown Traffic Impact Analysis  
Existing plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #31 Lake Park Ave./ Lake Shore Ave.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.907  
Loss Time (sec): 16 (Y+R = 12 sec) Average Delay (sec/veh): 50.4  
Optimal Cycle: 112 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	15	0	7	0	0	15	20	0	0	20	0
Lanes:	1	0	1	0	1	1	1	0	2	0	0	1

Volume Module: >> Count Date: 17 Jul 2003 <<

Base Vol:	483	585	212	30	0	20	302	343	0	0	431	291
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	483	585	212	30	0	20	302	343	0	0	431	291
Added Vol:	13	8	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	496	593	212	30	0	20	302	343	0	0	431	291
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	522	624	223	32	0	21	318	361	0	0	454	306
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	522	624	223	32	0	21	318	361	0	0	454	306
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	522	624	223	32	0	21	318	361	0	0	454	306

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.95	1.00	1.00	0.89	0.89
Lanes:	1.00	1.00	1.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.19	0.81
Final Sat.:	1805	1900	1615	1805	0	1615	1805	3610	0	0	2026	1368

Capacity Analysis Module:

Vol/Sat:	0.29	0.33	0.14	0.02	0.00	0.01	0.18	0.10	0.00	0.00	0.22	0.22
Crit Moves:	****											
Green/Cycle:	0.34	0.34	0.34	0.08	0.00	0.08	0.18	0.41	0.00	0.00	0.23	0.23
Volume/Cap:	0.86	0.98	0.41	0.22	0.00	0.17	0.98	0.24	0.00	0.00	0.98	0.98
Delay/Veh:	40.0	59.8	23.6	39.8	0.0	39.4	80.7	17.6	0.0	0.0	61.5	61.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.0	59.8	23.6	39.8	0.0	39.4	80.7	17.6	0.0	0.0	61.5	61.5
DesignQueue:	19	23	8	1	0	1	14	11	0	0	18	12

Uptown Traffic Impact Analysis  
Existing plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #32 Brush St./ 18th St.

Cycle (sec): 75 Critical Vol./Cap. (X): 0.421  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 9.2  
Optimal Cycle: 63 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	45	0	0	0	0	0	10	0
Lanes:	0	0	0	0	3	1	0	0	0	1	0	0

Volume Module:

Base Vol:	0	0	0	0	1890	154	0	0	0	62	143	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	1890	154	0	0	0	62	143	0
Added Vol:	0	0	0	0	0	0	0	0	0	108	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	1890	154	0	0	0	170	143	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	0	0	2100	171	0	0	0	189	159	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	2100	171	0	0	0	189	159	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	0	2100	171	0	0	0	189	159	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	0.90	0.90	1.00	1.00	1.00	0.85	0.95	1.00
Lanes:	0.00	0.00	0.00	0.00	3.70	0.30	0.00	0.00	0.00	1.00	2.00	0.00
Final Sat.:	0	0	0	0	6325	515	0	0	0	1615	3610	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.00	0.33	0.33	0.00	0.00	0.00	0.12	0.04	0.00
Crit Moves:	****											
Green/Cycle:	0.00	0.00	0.00	0.00	0.76	0.76	0.00	0.00	0.00	0.13	0.13	0.00
Volume/Cap:	0.00	0.00	0.00	0.00	0.44	0.44	0.00	0.00	0.00	0.88	0.33	0.00
Delay/Veh:	0.0	0.0	0.0	0.0	3.3	3.3	0.0	0.0	0.0	62.7	29.9	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	0.0	3.3	3.3	0.0	0.0	0.0	62.7	29.9	0.0
DesignQueue:	0	0	0	0	23	2	0	0	0	7	6	0

Uptown Traffic Impact Analysis
Existing plus Project - AM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #33 18th St./ Castro St.

Cycle (sec): 40 Critical Vol./Cap. (X): 0.307
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 7.8
Optimal Cycle: 41 Level Of Service: A

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Traffic Impact Analysis
Existing plus Project - AM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #34 MLK Jr. Way/ 18th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.131
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 10.6
Optimal Cycle: 62 Level Of Service: B

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Traffic Impact Analysis  
Existing plus Project - AM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #35 Brush St./ 17th St.

Cycle (sec): 40 Critical Vol./Cap. (X): 0.583  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 7.6  
Optimal Cycle: 33 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	15	0	0	10	0	0	0	0
Lanes:	0	0	0	1	1	2	0	0	1	1	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	1005	813	0	0	181	81	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	1005	813	0	0	181	81	0	0	0
Added Vol:	0	0	0	0	108	0	0	6	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	1005	921	0	0	187	81	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	0	1117	1023	0	0	208	90	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	1117	1023	0	0	208	90	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	1117	1023	0	0	208	90	0	0	0

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.77	0.77	1.00	1.00	0.91	0.91	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	2.00	0.00	0.00	1.40	0.60	0.00	0.00	0.00
Final Sat.:	0	0	0	2939	2939	0	0	2406	1042	0	0	0

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.00	0.00	0.00	0.38	0.35	0.00	0.00	0.09	0.09	0.00	0.00	0.00
Crit Moves:	****											
Green/Cycle:	0.00	0.00	0.00	0.55	0.55	0.00	0.00	0.25	0.25	0.00	0.00	0.00
Volume/Cap:	0.00	0.00	0.00	0.69	0.63	0.00	0.00	0.35	0.35	0.00	0.00	0.00
Delay/Veh:	0.0	0.0	0.0	7.2	6.6	0.0	0.0	12.6	12.6	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	7.2	6.6	0.0	0.0	12.6	12.6	0.0	0.0	0.0
DesignQueue:	0	0	0	12	11	0	0	4	2	0	0	0

Uptown Traffic Impact Analysis  
Existing plus Project - AM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #36 17th St / Castro St / I-980 Off-Ramp

Cycle (sec): 70 Critical Vol./Cap. (X): 0.455  
Loss Time (sec): 12 (Y+R = 6 sec) Average Delay (sec/veh): 25.6  
Optimal Cycle: 62 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	10	0	0	0	0	0	0	20	0	0	20
Lanes:	0	0	1	1	0	0	0	0	3	0	0	2

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	617	70	0	0	0	182	374	0	0	302	37
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	617	70	0	0	0	182	374	0	0	302	37
Added Vol:	0	0	19	0	0	0	0	6	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	617	89	0	0	0	182	380	0	0	302	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	686	99	0	0	0	202	422	0	0	336	41
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	686	99	0	0	0	202	422	0	0	336	41
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	686	99	0	0	0	202	422	0	0	336	41

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.93	0.93	1.00	1.00	1.00	0.95	0.91	1.00	1.00	1.00	0.90
Lanes:	0.00	1.75	0.25	0.00	0.00	0.00	1.00	3.00	0.00	0.00	2.67	0.33
Final Sat.:	0	3095	446	0	0	0	1805	5187	0	0	4547	557

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.00	0.22	0.22	0.00	0.00	0.00	0.11	0.08	0.00	0.00	0.07	0.07
Crit Moves:	****											
Green/Cycle:	0.00	0.26	0.26	0.00	0.00	0.00	0.29	0.29	0.00	0.00	0.29	0.29
Volume/Cap:	0.00	0.86	0.86	0.00	0.00	0.00	0.39	0.28	0.00	0.00	0.26	0.26
Delay/Veh:	0.0	33.2	33.2	0.0	0.0	0.0	20.6	19.5	0.0	0.0	19.4	19.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	33.2	33.2	0.0	0.0	0.0	20.6	19.5	0.0	0.0	19.4	19.4
DesignQueue:	0	21	3	0	0	0	6	12	0	0	9	1



Uptown Traffic Impact Analysis  
Existing plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #37 MLK Jr. Way/ 17th St

Cycle (sec): 60 Critical Vol./Cap. (X): 0.303  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 11.8  
Optimal Cycle: 58 Level Of Service: B

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Min. Green, Lanes.

Volume Module: >> Count Date: 8 Jul 2003 << Table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module: Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

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Uptown Traffic Impact Analysis  
Existing plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #38 Jefferson St./ 17th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.264  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 11.3  
Optimal Cycle: 59 Level Of Service: B

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Min. Green, Lanes.

Volume Module: >> Count Date: 8 Jul 2003 << Table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module: Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

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Uptown Traffic Impact Analysis  
Existing plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #39 Franklin St./ 17th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.412  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 18.3  
Optimal Cycle: 45 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 23 0 0 0 0 0 14 0 0 0 0  
Lanes: 0 0 3 1 0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0

Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol: 0 344 63 0 0 0 269 431 0 0 0 0 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 344 63 0 0 0 269 431 0 0 0 0 0  
Added Vol: 0 7 0 0 0 0 0 64 0 0 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 0 351 63 0 0 0 269 495 0 0 0 0 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.92 0.92 0.92 1.00 1.00 1.00 1.00 1.00 0.98 0.98 0.98  
PHF Volume: 0 383 69 0 0 0 269 495 0 0 0 0 0  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 383 69 0 0 0 269 495 0 0 0 0 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 0 383 69 0 0 0 269 495 0 0 0 0 0

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 0.86 0.86 1.00 1.00 1.00 0.75 0.75 1.00 1.00 1.00 1.00  
Lanes: 0.00 3.39 0.61 0.00 0.00 0.00 0.70 1.30 0.00 0.00 0.00 0.00  
Final Sat.: 0 5514 990 0 0 0 999 1839 0 0 0 0 0

Capacity Analysis Module:  
Vol/Sat: 0.00 0.07 0.07 0.00 0.00 0.00 0.27 0.27 0.00 0.00 0.00 0.00  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.00 0.51 0.51 0.00 0.00 0.00 0.31 0.31 0.00 0.00 0.00 0.00  
Volume/Cap: 0.00 0.14 0.14 0.00 0.00 0.00 0.87 0.87 0.00 0.00 0.00 0.00  
Delay/Veh: 0.0 5.9 5.9 0.0 0.0 0.0 25.7 25.7 0.0 0.0 0.0 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 5.9 5.9 0.0 0.0 0.0 25.7 25.7 0.0 0.0 0.0 0.0  
DesignQueue: 0 5 1 0 0 0 5 9 0 0 0 0

Uptown Traffic Impact Analysis  
Existing plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #40 Webster St./ 17th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.334  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 10.6  
Optimal Cycle: 47 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 22 0 0 0 17 0 0 0 0 0 0  
Lanes: 0 0 0 0 0 0 1 3 0 0 0 0 1 1 0 0 0 0 0 0

Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol: 0 0 0 57 419 0 0 288 183 0 0 0 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 0 0 57 419 0 0 288 183 0 0 0 0  
Added Vol: 0 0 0 0 0 0 0 34 30 0 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 0 0 0 57 419 0 0 322 213 0 0 0 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 1.00 1.00 1.00 0.90 0.90 0.90 0.93 0.93 0.93 1.00 1.00 1.00  
PHF Volume: 0 0 0 63 466 0 0 347 230 0 0 0 0  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 0 0 63 466 0 0 347 230 0 0 0 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 0 0 0 63 466 0 0 347 230 0 0 0 0

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 1.00 1.00 0.74 0.74 1.00 1.00 0.83 0.83 1.00 1.00 1.00  
Lanes: 0.00 0.00 0.00 0.48 3.52 0.00 0.00 1.20 0.80 0.00 0.00 0.00  
Final Sat.: 0 0 0 678 4981 0 0 1889 1250 0 0 0 0

Capacity Analysis Module:  
Vol/Sat: 0.00 0.00 0.00 0.09 0.09 0.00 0.00 0.18 0.18 0.00 0.00 0.00  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.00 0.00 0.00 0.47 0.47 0.00 0.00 0.36 0.36 0.00 0.00 0.00  
Volume/Cap: 0.00 0.00 0.00 0.20 0.20 0.00 0.00 0.51 0.51 0.00 0.00 0.00  
Delay/Veh: 0.0 0.0 0.0 7.5 7.5 0.0 0.0 13.4 13.4 0.0 0.0 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 0.0 0.0 7.5 7.5 0.0 0.0 13.4 13.4 0.0 0.0 0.0  
DesignQueue: 0 0 0 1 7 0 0 6 4 0 0 0 0

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #1 San Pablo Ave./ 31st St.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.346  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 9.6  
Optimal Cycle: 82 Level Of Service: A

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North, South, East, West bounds.

Volume Module: >> Count Date: 9 Jul 2003 << Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, MLF Adj, Final Vol.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #2 San Pablo Ave./ Market St.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.439  
Loss Time (sec): 8 (Y+R = 10 sec) Average Delay (sec/veh): 9.9  
Optimal Cycle: 78 Level Of Service: A

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North, South, East, West bounds.

Volume Module: >> Count Date: 9 Jul 2003 << Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, MLF Adj, Final Vol.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #3 San Pablo Ave. / 27th  
\*\*\*\*\*

Cycle (sec): 90 Critical Vol./Cap. (X): 0.455  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 12.7  
Optimal Cycle: 90 Level Of Service: B

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	60	0	0	60	0	0	22	0	0	22	0
Lanes:	0	1	0	1	0	1	0	0	1	0	0	1

Volume Module:

Base Vol:	8	960	60	174	638	7	21	40	19	53	87	90
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	960	60	174	638	7	21	40	19	53	87	90
Added Vol:	4	28	0	0	52	0	0	0	7	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	988	60	174	690	7	21	40	26	53	87	90
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	13	1098	67	193	767	8	23	44	29	59	97	100
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	1098	67	193	767	8	23	44	29	59	97	100
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	13	1098	67	193	767	8	23	44	29	59	97	100

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	0.89	0.89	0.19	0.95	0.95	0.79	0.79	0.79	0.74	1.00	0.85
Lanes:	0.02	1.87	0.11	1.00	1.98	0.02	0.24	0.46	0.30	1.00	1.00	1.00
Final Sat.:	38	3141	191	367	3570	36	360	687	446	1400	1900	1615

Capacity Analysis Module:

Vol/Sat:	0.35	0.35	0.35	0.53	0.21	0.21	0.06	0.06	0.06	0.04	0.05	0.06
Crit Moves:	****											
Green/Cycle:	0.67	0.67	0.67	0.67	0.67	0.67	0.24	0.24	0.24	0.24	0.24	0.24
Volume/Cap:	0.52	0.52	0.52	0.79	0.32	0.32	0.26	0.26	0.26	0.17	0.21	0.25
Delay/Veh:	8.6	8.6	8.6	33.0	6.7	6.7	29.2	29.2	29.2	27.9	28.1	28.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.6	8.6	8.6	33.0	6.7	6.7	29.2	29.2	29.2	27.9	28.1	28.9
DesignQueue:	0	20	1	3	14	0	1	2	1	2	4	4

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Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #4 San Pablo Ave./ West St./25th St  
\*\*\*\*\*

Cycle (sec): 90 Critical Vol./Cap. (X): 0.424  
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 14.9  
Optimal Cycle: 73 Level Of Service: B

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	32	0	0	32	0	12	0	12	17	0	17
Lanes:	0	1	0	1	0	1	0	0	1	0	0	1

Volume Module: >> Count Date: 9 Jul 2003 <<

Base Vol:	0	901	67	12	554	0	5	0	8	25	0	65
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	901	67	12	554	0	5	0	8	25	0	65
Added Vol:	0	32	9	0	59	0	0	0	0	17	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	933	76	12	613	0	5	0	8	42	0	65
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	986	80	13	648	0	5	0	8	44	0	69
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	986	80	13	648	0	5	0	8	44	0	69
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	986	80	13	648	0	5	0	8	44	0	69

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.85	0.85	0.79	0.79	0.95	0.64	1.00	0.64	0.95	1.00	0.68
Lanes:	0.00	1.85	0.15	0.04	1.96	0.00	0.38	0.00	0.62	1.00	0.00	1.00
Final Sat.:	0	2971	242	58	2941	0	469	0	750	1805	0	1292

Capacity Analysis Module:

Vol/Sat:	0.00	0.33	0.33	0.22	0.22	0.00	0.01	0.00	0.01	0.02	0.00	0.05
Crit Moves:	****											
Green/Cycle:	0.00	0.54	0.54	0.54	0.54	0.00	0.13	0.00	0.13	0.19	0.00	0.19
Volume/Cap:	0.00	0.61	0.61	0.40	0.40	0.00	0.08	0.00	0.08	0.13	0.00	0.28
Delay/Veh:	0	0	14.6	14.6	12.1	12.1	0	0	34.4	30.5	0	31.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0	0	14.6	14.6	12.1	12.1	0	0	34.4	30.5	0	31.9
DesignQueue:	0	24	2	0	15	0	0	0	0	2	0	3

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Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #5 San Pablo Ave./ Grand Ave

Cycle (sec): 80 Critical Vol./Cap. (X): 0.535  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 18.0  
Optimal Cycle: 81 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 11 columns and 14 rows including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 11 columns and 5 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 11 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #6 San Pablo Ave./ 20th St.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.603  
Loss Time (sec): 12 (Y+R = 25 sec) Average Delay (sec/veh): 27.7  
Optimal Cycle: 62 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 11 columns and 14 rows including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 11 columns and 5 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 11 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level of Service Computation Report  
1997 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 San Pablo / William St

Average Delay (sec/veh): 1.5 Worst Case Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Vol.

Critical Gap Module: Critical Gap: 6.2, FollowUpTim: 3.3

Capacity Module table with columns for Conflict Vol, Potent Cap., Move Cap.

Level Of Service Module table with columns for Stopped Del, LOS by Move, Movement, Shared Cap., Shrd StpDel, Shared LOS, ApproachDel, ApproachLOS.

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #8 San Pablo Ave./ 19th St.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.578  
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 25.8  
Optimal Cycle: 79 Level of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Vol.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 San Pablo / 18th

Average Delay (sec/veh): 2.9 Worst Case Level Of Service: B

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Vol.

Critical Gap Module table with columns for Critical Gp, FollowUpPim, and values for different movements.

Capacity Module table with columns for Conflict Vol, Potent Cap., Move Cap., and values for different movements.

Level Of Service Module table with columns for Stopped Del, LOS by Move, Movement, Shared Cap., Shrd StpDel, Shared LOS, ApproachDel, ApproachLOS.

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #10 San Pablo / 17th / Clay

Cycle (sec): 70 Critical Vol./Cap. (X): 0.388  
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 20.4  
Optimal Cycle: 62 Level Of Service: C

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, Uptown, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat., and values for different movements.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #11 Telegraph Ave./ W. Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 1.032  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 26.7  
Optimal Cycle: 120 Level Of Service: C

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #12 Telegraph Ave./ 20th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.582  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 16.1  
Optimal Cycle: 47 Level Of Service: B

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.



Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #13 Telegraph / William St

Cycle (sec): 45 Critical Vol./Cap. (X): 0.594  
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 7.5  
Optimal Cycle: 34 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Rights:	0 0 0			0 0 0			10 0 10			0 0 0		
Min. Green:	0 0 0			0 0 0			0 0 0			0 0 0		
Lanes:	1 0 1 0 0			0 0 0 1 0			0 0 1 0 0			0 0 0 0 0		

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	14	440	0	0	400	28	1	0	1	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	14	440	0	0	400	28	1	0	1	0	0	0
Added Vol:	41	63	0	0	69	134	18	0	47	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	55	503	0	0	469	162	19	0	48	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	61	559	0	0	521	180	21	0	53	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	61	559	0	0	521	180	21	0	53	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	61	559	0	0	521	180	21	0	53	0	0	0

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.60	1.00	1.00	1.00	0.87	0.87	0.63	1.00	0.63	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.74	0.26	0.28	0.00	0.72	0.00	0.00	0.00
Final Sat.:	1132	1900	0	0	1222	422	341	0	861	0	0	0

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.05	0.29	0.00	0.00	0.43	0.43	0.06	0.00	0.06	0.00	0.00	0.00
Crit Moves:	****											
Green/Cycle:	0.60	0.60	0.00	0.00	0.60	0.60	0.22	0.00	0.22	0.00	0.00	0.00
Volume/Cap:	0.09	0.49	0.00	0.00	0.71	0.71	0.28	0.00	0.28	0.00	0.00	0.00
Delay/Veh:	3.9	5.4	0.0	0.0	8.7	8.7	15.1	0.0	15.1	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	3.9	5.4	0.0	0.0	8.7	8.7	15.1	0.0	15.1	0.0	0.0	0.0
DesignQueue:	1	6	0	0	6	2	0	0	1	0	0	0

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #14 Telegraph Ave./ 19th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.814  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 39.7  
Optimal Cycle: 53 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Rights:	0 17 0			0 17 0			0 0 0			0 22 0		
Min. Green:	0 1 0 0			0 0 1 0			0 0 0 0			0 1 0 1 0		
Lanes:	1 0 1 0 0			0 0 0 1 0			0 0 0 0 0			0 1 0 1 0		

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	57	355	0	0	377	46	0	0	0	28	552	122
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	57	355	0	0	377	46	0	0	0	28	552	122
Added Vol:	23	59	0	0	47	69	0	0	0	0	27	45
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	80	414	0	0	424	115	0	0	0	28	579	167
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.93	0.93	0.93	1.00	1.00	1.00	0.94	0.94	0.94
PHF Volume:	82	427	0	0	456	124	0	0	0	30	616	178
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	82	427	0	0	456	124	0	0	0	30	616	178
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	82	427	0	0	456	124	0	0	0	30	616	178

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.78	0.85	1.00	1.00	0.74	0.74	1.00	1.00	1.00	0.82	0.82	0.82
Lanes:	1.00	1.00	0.00	0.00	0.79	0.21	0.00	0.00	0.00	0.07	1.50	0.43
Final Sat.:	1486	1615	0	0	1107	300	0	0	0	113	2341	675

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.06	0.26	0.00	0.00	0.41	0.41	0.00	0.00	0.00	0.26	0.26	0.26
Crit Moves:	****											
Green/Cycle:	0.36	0.36	0.00	0.00	0.36	0.36	0.00	0.00	0.00	0.47	0.47	0.47
Volume/Cap:	0.15	0.73	0.00	0.00	1.14	1.14	0.00	0.00	0.00	0.56	0.56	0.56
Delay/Veh:	10.7	20.9	0.0	0.0	99.1	99.1	0.0	0.0	0.0	10.6	10.6	10.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.7	20.9	0.0	0.0	99.1	99.1	0.0	0.0	0.0	10.6	10.6	10.6
DesignQueue:	1	8	0	0	8	2	0	0	0	0	9	3

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #15 Telegraph / 18th St

Cycle (sec): 45 Critical Vol./Cap. (X): 0.509  
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 8.2  
Optimal Cycle: 30 Level Of Service: A

Table with columns: Approach (North, South, East, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Lanes.

Volume Module: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

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Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #16 Telegraph Ave. / 17th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.416  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 9.9  
Optimal Cycle: 26 Level Of Service: A

Table with columns: Approach (North, South, East, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Lanes.

Volume Module: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

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Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #17 Broadway/ W. Grand Ave.  
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Cycle (sec): 85 Critical Vol./Cap. (X): 1.023  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 41.0  
Optimal Cycle: 120 Level Of Service: D

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	37	0	0	37	0	0	42	0	0	42	0
Lanes:	1	0	2	0	1	1	1	0	1	1	0	1

Volume Module:

Base Vol:	301	734	200	59	494	125	136	585	86	84	356	33
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	301	734	200	59	494	125	136	585	86	84	356	33
Added Vol:	0	4	3	0	9	19	11	58	0	10	101	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	301	738	203	59	503	144	147	643	86	94	457	33
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	334	820	226	66	559	160	163	714	96	104	508	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	334	820	226	66	559	160	163	714	96	104	508	37
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	334	820	226	66	559	160	163	714	96	104	508	37

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.28	0.95	0.72	0.23	0.85	0.85	0.34	0.86	0.86	0.58	0.58	0.58
Lanes:	1.00	2.00	1.00	1.00	1.55	0.45	1.00	1.76	0.24	0.32	1.57	0.11
Final Sat.:	528	3610	1373	439	2510	719	640	2892	387	353	1717	124

Capacity Analysis Module:

Vol/Sat:	0.63	0.23	0.16	0.15	0.22	0.22	0.26	0.25	0.25	0.30	0.30	0.30
Crit Moves:	****											
Green/Cycle:	0.43	0.43	0.43	0.43	0.43	0.43	0.48	0.48	0.48	0.48	0.48	0.48
Volume/Cap:	1.49	0.53	0.39	0.35	0.52	0.52	0.53	0.51	0.51	0.61	0.61	0.61
Delay/Veh:	267.1	19.9	19.1	22.0	19.9	19.9	22.0	16.6	16.6	19.2	19.2	19.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	267.1	19.9	19.1	22.0	19.9	19.9	22.0	16.6	16.6	19.2	19.2	19.2
DesignQueue:	10	24	6	2	16	5	4	19	3	3	13	1

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Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #18 Broadway/ 20th St.  
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Cycle (sec): 60 Critical Vol./Cap. (X): 0.471  
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 12.7  
Optimal Cycle: 56 Level Of Service: B

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	30	0	0	30	0	0	18	0	0	18	0
Lanes:	0	1	0	1	0	1	0	1	0	0	1	0

Volume Module:

Base Vol:	27	360	91	36	573	40	38	249	43	70	196	84
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	27	360	91	36	573	40	38	249	43	70	196	84
Added Vol:	0	0	0	0	3	16	6	17	0	3	30	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	27	360	91	36	576	56	44	266	43	73	226	84
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.96	0.96	0.96	0.94	0.94	0.94	0.92	0.92	0.92
PHF Volume:	29	387	98	38	600	58	47	283	46	79	246	91
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	387	98	38	600	58	47	283	46	79	246	91
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	29	387	98	38	600	58	47	283	46	79	246	91

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.68	0.68	0.68	0.39	0.76	0.76	0.66	0.66	0.66	0.61	0.61	0.61
Lanes:	0.11	1.51	0.38	1.00	1.82	0.18	0.25	1.51	0.24	0.38	1.18	0.44
Final Sat.:	145	1935	489	749	2630	256	311	1878	304	441	1365	507

Capacity Analysis Module:

Vol/Sat:	0.20	0.20	0.20	0.05	0.23	0.23	0.15	0.15	0.15	0.18	0.18	0.18
Crit Moves:	****											
Green/Cycle:	0.50	0.50	0.50	0.50	0.50	0.50	0.37	0.37	0.37	0.37	0.37	0.37
Volume/Cap:	0.40	0.40	0.40	0.10	0.46	0.46	0.41	0.41	0.41	0.49	0.49	0.49
Delay/Veh:	10.3	10.3	10.3	8.4	10.8	10.8	15.5	15.5	15.5	16.7	16.7	16.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.3	10.3	10.3	8.4	10.8	10.8	15.5	15.5	15.5	16.7	16.7	16.7
DesignQueue:	1	7	2	1	10	1	1	6	1	2	5	2

\*\*\*\*\*

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #19 Broadway/ 19th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.566  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 13.7  
Optimal Cycle: 60 Level Of Service: B

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control (Permitted, Include), Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #20 Broadway/ 17th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.499  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 13.0  
Optimal Cycle: 60 Level Of Service: B

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control (Permitted, Include), Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #21 Broadway/ 15th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.467  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 8.4  
Optimal Cycle: 33 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 25 0 0 25 0 0 0 0 0 0 0 0  
Lanes: 0 0 2 0 0 0 0 2 0 0 0 0 0 2

Volume Module:  
Base Vol: 0 556 0 0 720 0 0 0 0 0 0 0 250  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 556 0 0 720 0 0 0 0 0 0 0 250  
Added Vol: 0 52 0 0 28 0 0 0 0 0 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 0 608 0 0 748 0 0 0 0 0 0 0 250  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 0 676 0 0 831 0 0 0 0 0 0 0 278  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 676 0 0 831 0 0 0 0 0 0 0 278  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 0 676 0 0 831 0 0 0 0 0 0 0 278

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 0.77 1.00 1.00 0.77 1.00 1.00 1.00 1.00 1.00 1.00 0.61  
Lanes: 0.00 2.00 0.00 0.00 2.00 0.00 0.00 0.00 0.00 0.00 0.00 2.00  
Final Sat.: 0 2924 0 0 2924 0 0 0 0 0 0 2302

Capacity Analysis Module:  
Vol/Sat: 0.00 0.23 0.00 0.00 0.28 0.00 0.00 0.00 0.00 0.00 0.00 0.12  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.00 0.61 0.00 0.00 0.61 0.00 0.00 0.00 0.00 0.00 0.00 0.26  
Volume/Cap: 0.00 0.38 0.00 0.00 0.47 0.00 0.00 0.00 0.00 0.00 0.00 0.47  
Delay/Veh: 0.0 5.1 0.0 0.0 6.6 0.0 0.0 0.0 0.0 0.0 0.0 19.4  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 6.1 0.0 0.0 6.6 0.0 0.0 0.0 0.0 0.0 0.0 19.4  
DesignQueue: 0 9 0 0 12 0 0 0 0 0 0 7

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #22 Broadway/ 14th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.552  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 13.8  
Optimal Cycle: 60 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 26 0 0 26 0 0 26 0 0 26 0  
Lanes: 0 0 1 1 0 0 0 2 1 0 0 0 1 1 0

Volume Module:  
Base Vol: 0 433 29 0 921 87 0 273 152 0 397 106  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 433 29 0 921 87 0 273 152 0 397 106  
Added Vol: 0 21 0 0 28 0 0 0 0 0 0 0 31  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 0 454 29 0 949 87 0 273 152 0 397 137  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 0 504 32 0 1054 97 0 303 169 0 441 152  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 504 32 0 1054 97 0 303 169 0 441 152  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 0 504 32 0 1054 97 0 303 169 0 441 152

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 0.76 0.76 1.00 0.75 0.75 1.00 0.73 0.73 1.00 0.74 0.74  
Lanes: 0.00 1.88 0.12 0.00 2.75 0.25 0.00 1.28 0.72 0.00 1.49 0.51  
Final Sat.: 0 2724 174 0 3939 361 0 1777 989 0 2089 721

Capacity Analysis Module:  
Vol/Sat: 0.00 0.19 0.19 0.00 0.27 0.27 0.00 0.17 0.17 0.00 0.21 0.21  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.00 0.43 0.43 0.00 0.43 0.43 0.00 0.43 0.43 0.00 0.43 0.43  
Volume/Cap: 0.00 0.43 0.43 0.00 0.62 0.62 0.00 0.39 0.39 0.00 0.49 0.49  
Delay/Veh: 0.0 12.9 12.9 0.0 14.7 14.7 0.0 12.6 12.6 0.0 13.6 13.6  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 12.9 12.9 0.0 14.7 14.7 0.0 12.6 12.6 0.0 13.6 13.6  
DesignQueue: 0 10 1 0 21 2 0 6 3 0 9 3

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #23 Frontage Rd./ W. Grand Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.965  
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 58.6  
Optimal Cycle: 120 Level Of Service: E

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control (Split Phase, Split Phase, Protected, Protected), Rights (Include, Include, Include, Include), Min. Green (0, 0, 7, 7), and Lanes (1 0 1 1 0, 0 1 0 0 1, 1 0 1 1 0, 1 0 1 1 0).

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. Rows are listed for each of the four approaches.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. Rows are listed for each of the four approaches.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue. Rows are listed for each of the four approaches.

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #24 Mandela Pkwy/ W. Grand Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.433  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 19.4  
Optimal Cycle: 118 Level Of Service: B

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control (Permitted, Permitted, Permitted, Permitted), Rights (Include, Include, Include, Include), Min. Green (0 30, 0 30, 0 80, 0 80), and Lanes (0 1 0 1 0, 0 1 0 1 0, 1 0 1 1 0, 1 0 1 1 0).

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. Rows are listed for each of the four approaches.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. Rows are listed for each of the four approaches.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue. Rows are listed for each of the four approaches.

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #25 Northgate Ave./ W. Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.740  
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 28.8  
Optimal Cycle: 73 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, and Lanes.

Table with 12 columns for traffic volume metrics. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns for saturation flow metrics. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for capacity analysis metrics. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #26 Webster St./Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.648  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 21.9  
Optimal Cycle: 75 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, and Lanes.

Table with 12 columns for traffic volume metrics. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns for saturation flow metrics. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for capacity analysis metrics. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level of Service Computation Report

1997 HCM Operations Method (Future Volume Alternative)

Intersection #27 Harrison St./ Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.930  
Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 29.9  
Optimal Cycle: 109 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Ovl Permitted Include Protected Include Protected Include  
Rights: Include Include Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 1 0 2 0 1 0 0 1 1 1 0 2 0 1 1 0

Volume Module:

Base Vol:	8	1618	738	0	614	73	164	522	172	311	512	105
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	1618	738	0	614	73	164	522	172	311	512	105
Added Vol:	0	3	0	0	6	22	12	48	0	0	90	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	8	1621	738	0	620	95	176	570	172	311	602	105
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	8	1706	777	0	653	100	185	600	181	327	634	111
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	1706	777	0	653	100	185	600	181	327	634	111
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	8	1706	777	0	653	100	185	600	181	327	634	111

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.34	0.95	0.85	0.91	0.89	0.89	0.92	0.92	0.92	0.92	0.93	0.93
Lanes:	1.00	2.00	1.00	0.00	2.60	0.40	2.00	1.54	0.46	2.00	1.70	0.30
Final Sat.:	637	3610	1615	0	4408	675	3502	2676	808	3502	3006	524

Capacity Analysis Module:

Vol/Sat:	0.01	0.47	0.48	0.00	0.15	0.15	0.05	0.22	0.22	0.09	0.21	0.21
Crit Moves:	****						****			****		
Green/Cycle:	0.51	0.51	0.61	0.00	0.51	0.51	0.07	0.24	0.24	0.10	0.27	0.27
Volume/Cap:	0.03	0.93	0.79	0.00	0.29	0.29	0.77	0.93	0.93	0.93	0.77	0.77
Delay/Veh:	9.8	27.3	16.2	0.0	11.4	11.4	50.9	46.2	46.2	66.3	30.7	30.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.8	27.3	16.2	0.0	11.4	11.4	50.9	46.2	46.2	66.3	30.7	30.7
DesignQueue:	0	42	15	0	15	2	8	21	6	13	22	4

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level of Service Computation Report

1997 HCM Operations Method (Future Volume Alternative)

Intersection #28 El Embarcadero / Grand Ave.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.876  
Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 26.4  
Optimal Cycle: 100 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Include Protected Include Permitted Ovl Protected Include  
Rights: Include Include Include Include Include Include  
Min. Green: 20 0 0 0 0 0 0 0 0 0 0 30 0 10 30 0 0  
Lanes: 1 0 0 0 1 0 0 0 0 0 0 0 2 0 1 1 0 2 0 0

Volume Module: >> Count Date: 9 Jul 2003 <<

Base Vol:	232	0	223	0	0	0	0	1039	743	301	603	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	232	0	223	0	0	0	0	1039	743	301	603	0
Added Vol:	56	0	0	0	0	0	0	48	0	0	34	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	288	0	223	0	0	0	0	1087	743	301	637	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	299	0	232	0	0	0	0	1130	772	313	662	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	299	0	232	0	0	0	0	1130	772	313	662	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	299	0	232	0	0	0	0	1130	772	313	662	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	1.00	1.00	1.00	1.00	0.95	0.68	0.95	0.85	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	1805	0	1615	0	0	0	0	3610	1292	1805	3249	0

Capacity Analysis Module:

Vol/Sat:	0.17	0.00	0.14	0.00	0.00	0.00	0.00	0.31	0.60	0.17	0.20	0.00
Crit Moves:	****							****	****			
Green/Cycle:	0.20	0.00	0.20	0.00	0.00	0.00	0.00	0.47	0.67	0.21	0.68	0.00
Volume/Cap:	0.83	0.00	0.72	0.00	0.00	0.00	0.00	0.66	0.89	0.84	0.30	0.00
Delay/Veh:	53.1	0.0	44.9	0.0	0.0	0.0	0.0	21.1	24.2	53.6	6.5	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	53.1	0.0	44.9	0.0	0.0	0.0	0.0	21.1	24.2	53.6	6.5	0.0
DesignQueue:	14	0	11	0	0	0	0	36	16	14	12	0



Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #29 MacArthur Blvd./ Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.874  
Loss Time (sec): 12 (Y+R = 8 sec) Average Delay (sec/veh): 31.2  
Optimal Cycle: 89 Level Of Service: C

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights (Min. Green, Lanes), and Volume (0, 25, 20, 15, 20, 3, 0, 0).

Volume Module: >> Count Date: 9 Nov 2000 <<  
Table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module:  
Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:  
Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #30 MacArthur Blvd./ Lake Shore Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.707  
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 25.7  
Optimal Cycle: 76 Level Of Service: C

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights (Min. Green, Lanes), and Volume (0, 22, 0, 0, 30, 0, 12, 30, 0, 0).

Volume Module: >> Count Date: 9 Jul 2003 <<  
Table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module:  
Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:  
Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report

1997 HCM Operations Method (Future Volume Alternative)

Intersection #31 Lake Park Ave./ Lake Shore Ave.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.766  
Loss Time (sec): 16 (Y+R = 12 sec) Average Delay (sec/veh): 38.0  
Optimal Cycle: 82 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), and Rights (Include, Include). Includes Min. Green and Lanes for each approach.

Volume Module: >> Count Date: 17 Jul 2003 <<. Grid of traffic volume data for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module. Grid of saturation flow data for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module. Grid of capacity analysis data for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report

1997 HCM Operations Method (Future Volume Alternative)

Intersection #32 Brush St./ 18th St.

Cycle (sec): 70 Critical Vol./Cap. (X): 0.361  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 10.4  
Optimal Cycle: 61 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Permitted), and Rights (Include, Include). Includes Min. Green and Lanes for each approach.

Volume Module. Grid of traffic volume data for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module. Grid of saturation flow data for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module. Grid of capacity analysis data for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #33 18th St./ Castro St.

Cycle (sec): 40 Critical Vol./Cap. (X): 0.775  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 16.4  
Optimal Cycle: 46 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 20 0 0 0 0 0 0 0 13 0  
Lanes: 1 1 3 0 0 0 0 0 0 0 0 1 1

Volume Module:

Base Vol: 212 1698 0 0 0 0 0 0 0 0 115 737  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 212 1698 0 0 0 0 0 0 0 0 115 737  
Added Vol: 0 0 0 0 0 0 0 0 0 0 59 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 212 1698 0 0 0 0 0 0 0 0 174 737  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 236 1887 0 0 0 0 0 0 0 0 193 819  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 236 1887 0 0 0 0 0 0 0 0 193 819  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 236 1887 0 0 0 0 0 0 0 0 193 819

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.77 0.77 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.88 0.88  
Lanes: 1.00 4.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.38 1.62  
Final Sat.: 1470 5879 0 0 0 0 0 0 0 0 638 2702

Capacity Analysis Module:

Vol/Sat: 0.16 0.32 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.30 0.30  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.49 0.49 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.32 0.32  
Volume/Cap: 0.33 0.66 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.96 0.96  
Delay/Veh: 6.5 9.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 32.6 32.6  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 6.5 9.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 32.6 32.6  
DesignQueue: 3 24 0 0 0 0 0 0 0 0 3 14

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #34 MLK Jr. Way/ 18th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.331  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 12.1  
Optimal Cycle: 62 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 27 0 0 27 0 0 0 0 0 27 0  
Lanes: 0 1 1 0 0 0 0 1 1 0 0 0 0 1 0

Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol: 63 134 0 0 182 133 0 0 0 18 725 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 63 134 0 0 182 133 0 0 0 18 725 0  
Added Vol: 0 0 0 0 0 0 0 0 0 4 59 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 63 134 0 0 182 133 0 0 0 22 784 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 70 149 0 0 202 148 0 0 0 24 871 0  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 70 149 0 0 202 148 0 0 0 24 871 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 70 149 0 0 202 148 0 0 0 24 871 0

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.68 0.68 1.00 1.00 0.82 0.82 1.00 1.00 1.00 1.00 0.86 0.91  
Lanes: 0.64 1.36 0.00 0.00 1.16 0.84 0.00 0.00 0.00 1.00 3.00 0.00  
Final Sat.: 831 1767 0 0 1808 1321 0 0 0 1900 4928 0

Capacity Analysis Module:

Vol/Sat: 0.08 0.08 0.00 0.00 0.11 0.11 0.00 0.00 0.00 0.01 0.18 0.00  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.44 0.44 0.00 0.00 0.44 0.44 0.00 0.00 0.00 0.44 0.44 0.00  
Volume/Cap: 0.19 0.19 0.00 0.00 0.26 0.26 0.00 0.00 0.00 0.03 0.41 0.00  
Delay/Veh: 11.2 11.2 0.0 0.0 11.6 11.6 0.0 0.0 0.0 10.1 12.6 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 11.2 11.2 0.0 0.0 11.6 11.6 0.0 0.0 0.0 10.1 12.6 0.0  
DesignQueue: 1 3 0 0 4 3 0 0 0 0 18 0

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #35 Brush St. / 17th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.368  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 10.2  
Optimal Cycle: 48 Level Of Service: B

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Lanes.

Volume Module table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with columns: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #36 17th St / Castro St / I-980-Off-Ramp

Cycle (sec): 85 Critical Vol./Cap. (X): 0.741  
Loss Time (sec): 12 (Y+R = 6 sec) Average Delay (sec/veh): 29.4  
Optimal Cycle: 63 Level Of Service: C

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include, Split Phase), Rights, Min. Green, Lanes.

Volume Module table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with columns: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #37 MLK Jr. Way/ 17th St  
\*\*\*\*\*

Cycle (sec): 60 Critical Vol./Cap. (X): 0.218  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 10.7  
Optimal Cycle: 58 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	25	0	0	25	0	0	25	0	0	0	0
Lanes:	0	0	1	1	0	0	0	1	2	1	0	0

Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol:	0	170	29	21	191	0	10	478	45	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	170	29	21	191	0	10	478	45	0	0	0
Added Vol:	0	0	7	0	4	0	0	110	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	170	36	21	195	0	10	588	45	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	189	40	23	217	0	11	653	50	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	189	40	23	217	0	11	653	50	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	189	40	23	217	0	11	653	50	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.93	0.93	0.80	0.80	1.00	0.86	0.86	0.86	1.00	1.00	1.00
Lanes:	0.00	1.65	0.35	0.19	1.81	0.00	0.06	3.66	0.28	0.00	0.00	0.00
Final Sat.:	0	2902	614	295	2740	0	101	5966	457	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.07	0.07	0.08	0.08	0.00	0.11	0.11	0.11	0.00	0.00	0.00
Crit Moves:	****											
Green/Cycle:	0.00	0.42	0.42	0.42	0.42	0.00	0.45	0.45	0.45	0.00	0.00	0.00
Volume/Cap:	0.00	0.16	0.16	0.19	0.19	0.00	0.24	0.24	0.24	0.00	0.00	0.00
Delay/Veh:	0.0	11.1	11.1	11.4	11.4	0.0	10.4	10.4	10.4	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	11.1	11.1	11.4	11.4	0.0	10.4	10.4	10.4	0.0	0.0	0.0
DesignQueue:	0	4	1	0	4	0	0	12	1	0	0	0

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #38 Jefferson St./ 17th St.  
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Cycle (sec): 60 Critical Vol./Cap. (X): 0.204  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 10.4  
Optimal Cycle: 59 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	25	0	0	25	0	0	26	0	0	0	0
Lanes:	0	0	1	1	0	0	0	1	2	1	0	0

Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol:	0	157	52	7	57	0	24	429	44	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	157	52	7	57	0	24	429	44	0	0	0
Added Vol:	0	0	0	0	0	0	0	117	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	157	52	7	57	0	24	546	44	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	174	58	8	63	0	27	607	49	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	174	58	8	63	0	27	607	49	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	174	58	8	63	0	27	607	49	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.85	0.85	0.81	0.81	1.00	0.86	0.86	0.86	1.00	1.00	1.00
Lanes:	0.00	1.50	0.50	0.22	1.78	0.00	0.15	3.56	0.29	0.00	0.00	0.00
Final Sat.:	0	2416	800	335	2730	0	255	5790	467	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.07	0.07	0.02	0.02	0.00	0.10	0.10	0.10	0.00	0.00	0.00
Crit Moves:	****											
Green/Cycle:	0.00	0.42	0.42	0.42	0.42	0.00	0.45	0.45	0.45	0.00	0.00	0.00
Volume/Cap:	0.00	0.17	0.17	0.06	0.06	0.00	0.23	0.23	0.23	0.00	0.00	0.00
Delay/Veh:	0.0	11.1	11.1	10.5	10.5	0.0	10.2	10.2	10.2	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	11.1	11.1	10.5	10.5	0.0	10.2	10.2	10.2	0.0	0.0	0.0
DesignQueue:	0	3	1	0	1	0	1	11	1	0	0	0

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #39 Franklin St./ 17th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.407  
Loss Time (sec): 8 (Y+R = 7 sec) Average Delay (sec/veh): 13.3  
Optimal Cycle: 45 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 23 0 0 0 0 0 14 0 0 0 0 0  
Lanes: 0 0 3 1 0 0 0 0 0 0 1 1 0 0

Volume Module: >> Count Date: 8 Jul 2003 <<  
Base Vol: 0 440 109 0 0 0 120 455 0 0 0 0 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 440 109 0 0 0 120 455 0 0 0 0 0  
Added Vol: 0 31 0 0 0 0 0 35 0 0 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 0 471 109 0 0 0 120 490 0 0 0 0 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91  
PHF Volume: 0 518 120 0 0 0 132 539 0 0 0 0 0  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 518 120 0 0 0 132 539 0 0 0 0 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 0 518 120 0 0 0 132 539 0 0 0 0 0

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 0.85 0.85 1.00 1.00 1.00 0.75 0.75 1.00 1.00 1.00 1.00  
Lanes: 0.00 3.25 0.75 0.00 0.00 0.00 0.39 1.61 0.00 0.00 0.00 0.00  
Final Sat.: 0 5254 1216 0 0 0 558 2280 0 0 0 0 0

Capacity Analysis Module:  
Vol/Sat: 0.00 0.10 0.10 0.00 0.00 0.00 0.24 0.24 0.00 0.00 0.00 0.00  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.00 0.51 0.51 0.00 0.00 0.00 0.31 0.31 0.00 0.00 0.00 0.00  
Volume/Cap: 0.00 0.19 0.19 0.00 0.00 0.00 0.76 0.76 0.00 0.00 0.00 0.00  
Delay/Veh: 0.0 6.1 6.1 0.0 0.0 0.0 20.1 20.1 0.0 0.0 0.0 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 6.1 6.1 0.0 0.0 0.0 20.1 20.1 0.0 0.0 0.0 0.0  
DesignQueue: 0 6 1 0 0 0 2 10 0 0 0 0 0

Uptown Project Traffic Impact Analysis  
Existing plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #40 Webster St./ 17th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.447  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 10.9  
Optimal Cycle: 47 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 22 0 0 17 0 0 0 0 0  
Lanes: 0 0 0 0 0 0 1 3 0 0 0 0 1 1 0 0

Volume Module: >> Count Date: 8 Jul 2003 <<  
Base Vol: 0 0 0 94 700 0 0 354 219 0 0 0 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 0 0 94 700 0 0 354 219 0 0 0 0  
Added Vol: 0 0 0 0 0 0 0 19 17 0 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 0 0 0 94 700 0 0 373 236 0 0 0 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 0 0 0 104 778 0 0 414 262 0 0 0 0  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 0 0 104 778 0 0 414 262 0 0 0 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 0 0 0 104 778 0 0 414 262 0 0 0 0

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 1.00 1.00 0.74 0.74 1.00 1.00 0.83 0.83 1.00 1.00 1.00  
Lanes: 0.00 0.00 0.00 0.47 3.53 0.00 0.00 1.22 0.78 0.00 0.00 0.00  
Final Sat.: 0 0 0 670 4988 0 0 1927 1219 0 0 0 0

Capacity Analysis Module:  
Vol/Sat: 0.00 0.00 0.00 0.16 0.16 0.00 0.00 0.22 0.22 0.00 0.00 0.00  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.00 0.00 0.00 0.47 0.47 0.00 0.00 0.36 0.36 0.00 0.00 0.00  
Volume/Cap: 0.00 0.00 0.00 0.33 0.33 0.00 0.00 0.59 0.59 0.00 0.00 0.00  
Delay/Veh: 0.0 0.0 0.0 8.2 8.2 0.0 0.0 14.5 14.5 0.0 0.0 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 0.0 0.0 8.2 8.2 0.0 0.0 14.5 14.5 0.0 0.0 0.0  
DesignQueue: 0 0 0 1 11 0 0 7 5 0 0 0 0

LEVEL OF SERVICE CALCULATION WORKSHEETS  
YEAR 2010 NO PROJECT CONDITIONS

Uptown Project Traffic Impact Analysis
Year 2010 No Project - AM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #1 San Pablo Ave./ 31st St.
Cycle (sec): 75 Critical Vol./Cap. (X): 0.364
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 9.8
Optimal Cycle: 75 Level Of Service: A
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Protected Protected
Rights: Include Include Include Include
Min. Green: 0 45 0 0 45 0 0 0 0 22 0 22
Lanes: 0 1 1 0 0 1 0 2 0 0 2 0 0 0 1
Volume Module: >> Count Date: 9 Jul 2003 <<
Base Vol: 0 416 0 15 451 0 0 0 0 137 0 7
Growth Adj: 1.10 1.10 1.10 1.78 1.78 1.78 1.00 1.00 1.00 1.16 1.16 1.16
Initial Bse: 0 458 0 27 803 0 0 0 0 159 0 8
Added Vol: 0 2 0 0 1 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 460 0 27 804 0 0 0 0 159 0 8
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 511 0 30 893 0 0 0 0 177 0 9
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 511 0 30 893 0 0 0 0 177 0 9
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 511 0 30 893 0 0 0 0 177 0 9
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.85 1.00 0.45 0.85 1.00 1.00 1.00 1.00 0.92 1.00 0.68
Lanes: 0.00 2.00 0.00 1.00 2.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
Final Sat.: 0 3249 0 849 3249 0 0 0 0 3502 0 1292
Capacity Analysis Module:
Vol/Sat: 0.00 0.16 0.00 0.03 0.27 0.00 0.00 0.00 0.00 0.05 0.00 0.01
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.60 0.00 0.60 0.60 0.00 0.00 0.00 0.00 0.29 0.00 0.29
Volume/Cap: 0.00 0.26 0.00 0.06 0.46 0.00 0.00 0.00 0.00 0.17 0.00 0.02
Delay/Veh: 0.0 7.4 0.0 6.4 9.1 0.0 0.0 0.0 0.0 20.1 0.0 19.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 7.4 0.0 6.4 9.1 0.0 0.0 0.0 0.0 20.1 0.0 19.0
DesignQueue: 0 9 0 0 16 0 0 0 0 5 0 0

Uptown Project Traffic Impact Analysis
Year 2010 No Project - AM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #2 San Pablo Ave./ Market St.
Cycle (sec): 75 Critical Vol./Cap. (X): 0.310
Loss Time (sec): 8 (Y+R = 10 sec) Average Delay (sec/veh): 10.2
Optimal Cycle: 73 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 43 0 0 43 0 0 22 0 0 0 0 0
Lanes: 0 0 1 1 0 0 0 1 1 0 0 1 0 1 0 0 0 0 0 0
Volume Module: >> Count Date: 9 Jul 2003 <<
Base Vol: 0 408 0 0 476 131 67 75 3 0 0 0 0
Growth Adj: 1.02 1.02 1.02 1.00 1.00 1.00 1.66 1.66 1.66 1.21 1.21 1.21
Initial Bse: 0 416 0 0 476 131 111 125 5 0 0 0 0
Added Vol: 0 2 0 0 1 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 418 0 0 477 131 111 125 5 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94
PHF Volume: 0 444 0 0 507 139 118 132 5 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 444 0 0 507 139 118 132 5 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 444 0 0 507 139 118 132 5 0 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.88 0.95 1.00 0.85 0.85 0.87 0.87 0.87 1.00 1.00 1.00
Lanes: 0.00 2.00 0.00 0.00 1.57 0.43 0.92 1.04 0.04 0.00 0.00 0.00
Final Sat.: 0 3339 0 0 2536 696 1534 1717 69 0 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.13 0.00 0.00 0.20 0.20 0.08 0.08 0.08 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.60 0.00 0.00 0.60 0.60 0.29 0.29 0.29 0.00 0.00 0.00
Volume/Cap: 0.00 0.22 0.00 0.00 0.33 0.33 0.26 0.26 0.26 0.00 0.00 0.00
Delay/Veh: 0.0 7.2 0.0 0.0 8.0 8.0 20.9 20.9 20.9 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 7.2 0.0 0.0 8.0 8.0 20.9 20.9 20.9 0.0 0.0 0.0
DesignQueue: 0 8 0 0 9 2 4 4 0 0 0 0



Uptown Project Traffic Impact Analysis
Year 2010 No Project - AM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #3 San Pablo Ave. / 27th

Cycle (sec): 75 Critical Vol./Cap. (X): 0.334
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 10.3
Optimal Cycle: 75 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for traffic volume metrics. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis
Year 2010 No Project - AM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #4 San Pablo Ave./ West St.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.305
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 20.5
Optimal Cycle: 83 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for traffic volume metrics. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Year 2010 No Project - AM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #5 San Pablo Ave./ Grand Ave

Cycle (sec): 80 Critical Vol./Cap. (X): 0.523  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 16.3  
Optimal Cycle: 80 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	35	0	0	35	0	0	37	0	0	37	0
Lanes:	1	0	1	1	0	1	1	0	2	0	1	1

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	56	306	29	91	377	10	6	442	35	8	747	44
Growth Adj:	1.03	1.03	1.03	1.37	1.37	1.37	1.08	1.08	1.08	1.30	1.30	1.30
Initial Bse:	58	315	30	125	516	14	6	477	38	10	971	57
Added Vol:	4	4	2	0	1	0	0	0	2	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	62	319	32	125	517	14	6	477	40	11	971	57
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	65	336	34	131	545	14	7	502	42	12	1022	60
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	65	336	34	131	545	14	7	502	42	12	1022	60
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	65	336	34	131	545	14	7	502	42	12	1022	60

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	0.38	0.87	0.87	0.51	0.88	0.88	0.17	0.95	0.72	0.90	0.90	0.72
Lanes:	1.00	1.82	0.18	1.00	1.95	0.05	1.00	2.00	1.00	0.02	1.98	1.00
Final Sat.:	720	2994	299	967	3240	86	319	3610	1373	40	3375	1373

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	****			****			****			****		
Green/Cycle:	0.44	0.44	0.44	0.44	0.44	0.44	0.46	0.46	0.46	0.46	0.46	0.46
Volume/Cap:	0.21	0.26	0.26	0.31	0.38	0.38	0.05	0.30	0.07	0.65	0.65	0.09
Delay/Veh:	15.4	14.7	14.7	16.5	16.0	16.0	12.4	13.9	12.1	18.7	18.7	12.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	15.4	14.7	14.7	16.5	16.0	16.0	12.4	13.9	12.1	18.7	18.7	12.4
DesignQueue:	2	9	1	3	14	0	0	12	1	0	26	1

Uptown Project Traffic Impact Analysis  
Year 2010 No Project - AM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #6 San Pablo Ave./ 20th St.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.267  
Loss Time (sec): 12 (Y+R = 16 sec) Average Delay (sec/veh): 18.0  
Optimal Cycle: 87 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	35	0	0	35	0	0	40	0	0	40	0
Lanes:	1	0	1	1	0	1	0	1	1	0	1	1

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	5	215	26	47	348	207	62	15	13	4	25	19
Growth Adj:	1.09	1.09	1.09	1.09	1.09	1.09	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	234	28	51	379	226	62	15	13	4	25	19
Added Vol:	0	0	3	4	0	0	0	0	0	6	0	10
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	5	234	31	55	379	226	62	15	13	10	25	29
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.84	0.84	0.84	0.93	0.93	0.00	0.87	0.87	0.87	0.71	0.71	0.71
PHF Volume:	6	279	37	59	408	0	71	17	15	14	35	41
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	279	37	59	408	0	71	17	15	14	35	41
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	6	279	37	59	408	0	71	17	15	14	35	41

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	0.51	0.83	0.83	0.47	0.95	1.00	0.63	0.63	0.63	0.74	0.74	0.74
Lanes:	1.00	0.88	0.12	1.00	2.00	1.00	1.00	0.54	0.46	0.31	0.78	0.91
Final Sat.:	975	1399	187	895	3610	1900	1200	643	557	439	1097	1272

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	****			****			****			****		
Green/Cycle:	0.42	0.42	0.42	0.42	0.42	0.00	0.44	0.44	0.44	0.44	0.44	0.44
Volume/Cap:	0.02	0.47	0.47	0.16	0.27	0.00	0.13	0.06	0.06	0.07	0.07	0.07
Delay/Veh:	15.2	21.1	21.1	17.0	17.4	0.0	15.1	14.3	14.3	14.5	14.5	14.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	15.2	21.1	21.1	17.0	17.4	0.0	15.1	14.3	14.3	14.5	14.5	14.5
DesignQueue:	0	8	1	2	12	0	2	0	0	0	1	1

Uptown Project Traffic Impact Analysis
Year 2010 No Project - AM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Unsignalized Method (Future Volume Alternative)
Intersection #7 San Pablo / William St
Average Delay (sec/veh): 0.1 Worst Case Level Of Service: A
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 1 0 0 0 0 2 0 0 0 0 0 0 0 1
Volume Module: >> Count Date: 30 Jul 2003 <<
Base Vol: 0 220 0 0 365 0 0 0 0 0 0 0 0 0 0 8
Growth Adj: 1.16 1.16 1.16 1.06 1.06 1.06 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 7
Initial Bse: 0 255 0 0 388 0 0 0 0 0 0 0 0 0 0 7
Added Vol: 0 3 0 0 6 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 258 0 0 394 0 0 0 0 0 0 0 0 0 0 7
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 287 0 0 437 0 0 0 0 0 0 0 0 0 0 8
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 287 0 0 437 0 0 0 0 0 0 0 0 0 0 8
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 6.2
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 3.3
Capacity Module:
Conflict Vol: xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 287
Potent Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 757
Move Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 757
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 9.8
LOS by Move: \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* A
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shrd StpDel:xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared LOS: \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \*
ApproachDel: xxxxxx xxxxxx xxxxxx xxxxxx 9.8
ApproachLOS: \* \* \* \* \* A

Uptown Project Traffic Impact Analysis
Year 2010 No Project - AM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #8 San Pablo Ave./ 19th St.
Cycle (sec): 75 Critical Vol./Cap. (X): 0.280
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 20.0
Optimal Cycle: 74 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 25 0 0 25 0 12 0 12 0 25 0
Lanes: 1 0 1 0 0 0 0 2 0 1 0 0 1 0 1 0
Volume Module:
Base Vol: 17 123 0 0 227 75 82 0 3 40 106 60
Growth Adj: 1.29 1.29 1.29 1.18 1.18 1.18 1.00 1.00 1.00 1.14 1.14 1.14
Initial Bse: 22 159 0 0 268 89 82 0 3 46 121 68
Added Vol: 0 2 0 0 1 5 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 22 161 0 0 269 94 82 0 3 46 121 68
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 22 161 0 0 269 94 82 0 3 46 121 68
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 22 161 0 0 269 94 82 0 3 46 121 68
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 22 161 0 0 269 94 82 0 3 46 121 68
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.59 0.85 1.00 1.00 0.95 0.72 0.73 1.00 0.73 0.83 0.83 0.83
Lanes: 1.00 1.00 0.00 0.00 2.00 1.00 0.96 0.00 0.04 0.39 1.03 0.58
Final Sat.: 1113 1615 0 0 3610 1373 1330 0 49 614 1626 921
Capacity Analysis Module:
Vol/Sat: 0.02 0.10 0.00 0.00 0.07 0.07 0.06 0.00 0.06 0.07 0.07 0.07
Crit Moves: \*\*\*\*
Green/Cycle: 0.33 0.33 0.00 0.00 0.33 0.33 0.17 0.00 0.17 0.33 0.33 0.33
Volume/Cap: 0.06 0.30 0.00 0.00 0.22 0.20 0.36 0.00 0.36 0.22 0.22 0.22
Delay/Veh: 17.3 19.9 0.0 0.0 18.4 18.9 31.4 0.0 31.4 18.5 18.5 18.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 17.3 19.9 0.0 0.0 18.4 18.9 31.4 0.0 31.4 18.5 18.5 18.5
DesignQueue: 1 5 0 0 8 3 3 0 0 1 3 2

Uptown Project Traffic Impact Analysis
Year 2010 No Project - AM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Unsignalized Method (Future Volume Alternative)
Intersection #9 San Pablo / 18th
Average Delay (sec/veh): 2.9 Worst Case Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 0 1 0 0 1 1 0 0 0 0 1 0 0 0 0 0 1 0 0 0
Volume Module:
Base Vol: 0 103 50 16 300 0 2 0 2 6 0 20
Growth Adj: 1.34 1.34 1.34 1.17 1.17 1.17 1.06 1.06 1.06 1.00 1.00 1.00
Initial Bse: 0 138 67 19 351 0 2 0 2 6 0 20
Added Vol: 0 2 0 0 1 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 140 67 19 352 0 2 0 2 6 0 20
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 156 74 21 391 0 2 0 2 7 0 22
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 156 74 21 391 0 2 0 2 7 0 22
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx 4.1 xxxxx xxxxx 7.1 xxxxx 6.2 7.1 xxxxx 6.2
FollowUpPim:xxxxxx xxxxx xxxxxx 2.2 xxxxx xxxxxx 3.5 xxxxx 3.3 3.5 xxxxx 3.3
Capacity Module:
Cnflct Vol: xxxxx xxxxx xxxxxx 230 xxxxx xxxxxx 570 xxxxx 81 356 xxxxx 193
Potent Cap.: xxxxx xxxxx xxxxxx 1350 xxxxx xxxxxx 419 xxxxx 948 581 xxxxx 854
Move Cap.: xxxxx xxxxx xxxxxx 1350 xxxxx xxxxxx 403 xxxxx 948 572 xxxxx 854
Level Of Service Module:
Stopped Del:xxxxxx xxxxx xxxxxx 7.7 xxxxx xxxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
LOS by Move: \* \* \* A \* \* \* \* \* \* \* \* \* \* \*
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx 566 xxxxxx xxxxx 767 xxxxxx
Shrd StpDel:xxxxxx xxxxx xxxxxx 7.7 xxxxx xxxxxx xxxxxx 11.4 xxxxxx xxxxxx 9.9 xxxxxx
Shared LOS: \* \* \* A \* \* \* B \* \* \* A \*
ApproachDel: xxxxxx xxxxxx 11.4 9.9
ApproachLOS: \* \* B A

Uptown Project Traffic Impact Analysis
Year 2010 No Project - AM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #10 San Pablo /17th/Clay
Cycle (sec): 80 Critical Vol./Cap. (X): 0.361
Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 20.2
Optimal Cycle: 62 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 25 0 0 25 0 0 25 0 0 0 0 0
Lanes: 0 0 0 1 0 1 0 0 1 1 0 1 2 0 1 0 0 0 1 0 1
Volume Module:
Base Vol: 0 50 17 113 25 128 84 716 186 0 75 37
Growth Adj: 1.34 1.34 1.34 1.17 1.17 1.17 1.06 1.06 1.06 1.19 1.19 1.19
Initial Bse: 0 67 23 132 29 150 89 759 197 0 89 44
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
TLBS: 0 0 0 0 0 1 2 0 0 0 0 0 0
Initial Fut: 0 67 23 132 29 151 91 759 197 0 89 44
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 74 25 147 33 168 101 843 219 0 99 49
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 74 25 147 33 168 101 843 219 0 99 49
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 74 25 147 33 168 101 843 219 0 99 49
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.74 0.74 0.72 0.81 0.81 0.91 0.91 0.72 1.00 1.00 0.72
Lanes: 0.00 0.75 0.25 1.00 0.32 1.68 0.32 2.68 1.00 0.00 1.00 1.00
Final Sat.: 0 1044 355 1360 499 2573 553 4608 1373 0 1900 1373
Capacity Analysis Module:
Vol/Sat: 0.00 0.07 0.07 0.11 0.07 0.07 0.18 0.18 0.16 0.00 0.05 0.04
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.31 0.31 0.31 0.31 0.31 0.42 0.42 0.42 0.00 0.12 0.12
Volume/Cap: 0.00 0.23 0.23 0.35 0.21 0.21 0.44 0.44 0.38 0.00 0.44 0.30
Delay/Veh: 0.0 21.6 21.6 23.4 20.7 20.7 17.2 17.2 18.0 0.0 38.8 36.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 21.6 21.6 23.4 20.7 20.7 17.2 17.2 18.0 0.0 38.8 36.8
DesignQueue: 0 2 1 5 1 5 3 23 6 0 4 2

Uptown Project Traffic Impact Analysis
Year 2010 No Project - AM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #11 Telegraph Ave. / W. Grand Ave.
Cycle (sec): 60 Critical Vol./Cap. (X): 0.743
Loss Time (sec): 12 (Y+R = 6 sec) Average Delay (sec/veh): 48.5
Optimal Cycle: 56 Level Of Service: D
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Prot+Permit Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 6 20 0 0 20 0 0 15 0 0 15 0
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 1 0
Volume Module:
Base Vol: 77 225 21 64 339 70 107 779 300 99 515 41
Growth Adj: 1.11 1.11 1.11 1.09 1.09 1.09 1.24 1.24 1.24 1.34 1.34 1.34
Initial Bse: 85 250 23 70 370 76 133 966 372 133 690 55
Added Vol: 2 1 6 0 0 0 0 0 0 1 2 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 87 251 29 70 370 76 133 966 373 135 690 55
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 92 264 31 73 389 80 140 1017 393 142 726 58
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 92 264 31 73 389 80 140 1017 393 142 726 58
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 92 264 31 73 389 80 140 1017 393 142 726 58
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.47 0.93 0.93 0.57 0.93 0.93 0.23 0.91 0.91 0.18 0.94 0.94
Lanes: 1.00 1.79 0.21 1.00 1.66 0.34 1.00 1.44 0.56 1.00 1.85 0.15
Final Sat.: 894 3180 372 1075 2914 602 443 2495 963 346 3307 263
Capacity Analysis Module:
Vol/Sat: 0.10 0.08 0.08 0.07 0.13 0.13 0.32 0.41 0.41 0.41 0.22 0.22
Crit Moves: \*\*\*\*
Green/Cycle: 0.43 0.43 0.43 0.33 0.33 0.33 0.37 0.37 0.37 0.37 0.37 0.37
Volume/Cap: 0.24 0.19 0.19 0.20 0.40 0.40 0.86 1.11 1.11 1.12 0.60 0.60
Delay/Veh: 10.8 10.6 10.6 14.6 15.6 15.6 51.9 80.6 80.6 134.1 16.2 16.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 10.8 10.6 10.6 14.6 15.6 15.6 51.9 80.6 80.6 134.1 16.2 16.2
DesignQueue: 3 5 1 2 9 2 3 24 9 3 16 1

Uptown Project Traffic Impact Analysis
Year 2010 No Project - AM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #12 Telegraph Ave. / 20th St.
Cycle (sec): 45 Critical Vol./Cap. (X): 0.562
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 21.1
Optimal Cycle: 47 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 17 0 0 17 0 0 22 0 0 22 0
Lanes: 1 0 0 1 0 1 0 1 1 0 0 1 0 1 0
Volume Module:
Base Vol: 25 313 26 197 419 73 15 66 34 60 148 77
Growth Adj: 1.06 1.06 1.06 1.22 1.22 1.22 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 27 332 28 240 511 89 15 66 34 60 148 77
Added Vol: 2 0 0 0 0 0 3 0 2 5 0 1 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 29 332 28 240 511 92 15 68 39 60 149 77
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.93 0.93 0.93 0.94 0.94 0.94 0.90 0.90 0.90 0.93 0.93 0.93
PHF Volume: 31 357 30 256 544 98 17 76 43 65 160 83
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 31 357 30 256 544 98 17 76 43 65 160 83
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 31 357 30 256 544 98 17 76 43 65 160 83
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.35 0.84 0.84 0.38 0.86 0.86 0.76 0.76 0.76 0.74 0.74 0.74
Lanes: 1.00 0.92 0.08 1.00 1.69 0.31 0.25 1.11 0.64 0.42 1.04 0.54
Final Sat.: 673 1473 122 716 2765 498 355 1607 922 588 1460 754
Capacity Analysis Module:
Vol/Sat: 0.05 0.24 0.24 0.36 0.20 0.20 0.05 0.05 0.05 0.11 0.11 0.11
Crit Moves: \*\*\*\*
Green/Cycle: 0.36 0.36 0.36 0.36 0.36 0.36 0.47 0.47 0.47 0.47 0.47 0.47
Volume/Cap: 0.13 0.67 0.67 0.99 0.54 0.54 0.10 0.10 0.10 0.23 0.23 0.23
Delay/Veh: 11.1 18.7 18.7 67.6 13.7 13.7 7.1 7.1 7.1 7.9 7.9 7.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 11.1 18.7 18.7 67.6 13.7 13.7 7.1 7.1 7.1 7.9 7.9 7.9
DesignQueue: 1 6 1 4 9 2 0 1 1 1 2 1

Uptown Project Traffic Impact Analysis
Year 2010 No Project - AM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #13 Telegraph / William St

Cycle (sec): 45 Critical Vol./Cap. (X): 0.635
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 11.9
Optimal Cycle: 36 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North, South, East, West Bound.

Table with columns: Volume Module, Count, Date, Sat/Lane, Adjustment, Lanes, Final Sat. Rows for Base Vol, Growth Adj, Initial Bse, etc.

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. Rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue. Rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Uptown Project Traffic Impact Analysis
Year 2010 No Project - AM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #14 Telegraph Ave./ 19th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.761
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 52.9
Optimal Cycle: 46 Level Of Service: D

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North, South, East, West Bound.

Table with columns: Volume Module, Count, Date, Sat/Lane, Adjustment, Lanes, Final Sat. Rows for Base Vol, Growth Adj, Initial Bse, etc.

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. Rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue. Rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Uptown Project Traffic Impact Analysis
Year 2010 No Project - AM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #15 Telegraph / 18th
Cycle (sec): 45 Critical Vol./Cap. (X): 0.410
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 6.7
Optimal Cycle: 26 Level Of Service: A
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 10 0 10 0 0 0 0 0
Lanes: 1 0 1 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0
Volume Module: >> Count Date: 30 Jul 2003 <<
Base Vol: 34 405 0 0 305 12 20 0 4 0 0 0
Growth Adj: 1.05 1.05 1.05 1.48 1.48 1.48 1.06 1.06 1.06 1.06 1.06 1.06
Initial Bse: 36 425 0 0 451 18 21 0 4 0 0 0
Added Vol: 0 1 0 0 5 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 36 426 0 0 456 18 21 0 4 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 40 474 0 0 507 20 24 0 5 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 40 474 0 0 507 20 24 0 5 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 40 474 0 0 507 20 24 0 5 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.68 1.00 1.00 1.00 0.90 0.90 0.55 1.00 0.55 1.00 1.00 1.00
Lanes: 1.00 1.00 0.00 0.00 0.96 0.04 0.83 0.00 0.17 0.00 0.00 0.00
Final Sat.: 1284 1900 0 0 1637 64 871 0 174 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.03 0.25 0.00 0.00 0.31 0.31 0.03 0.00 0.03 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.60 0.60 0.00 0.00 0.60 0.60 0.22 0.00 0.22 0.00 0.00 0.00
Volume/Cap: 0.05 0.42 0.00 0.00 0.52 0.52 0.12 0.00 0.12 0.00 0.00 0.00
Delay/Veh: 3.8 5.9 0.0 0.0 7.1 7.1 15.1 0.0 15.1 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 3.8 5.9 0.0 0.0 7.1 7.1 15.1 0.0 15.1 0.0 0.0 0.0
DesignQueue: 0 5 0 0 5 0 0 0 0 0 0 0

Uptown Project Traffic Impact Analysis
Year 2010 No Project - AM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #16 Telegraph Ave. / 17th St.
Cycle (sec): 40 Critical Vol./Cap. (X): 0.532
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 11.3
Optimal Cycle: 38 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 20 0 0 20 0 0 10 0 0 0 0 0 0
Lanes: 0 0 1 1 0 1 0 1 0 0 0 1 1 1 0 0 0 0 0 0
Volume Module:
Base Vol: 0 258 5 77 194 0 155 698 73 0 0 0
Growth Adj: 1.05 1.05 1.05 1.48 1.48 1.48 1.06 1.06 1.06 1.00 1.00 1.00
Initial Bse: 0 271 5 114 287 0 164 740 77 0 0 0
Added Vol: 0 1 0 3 2 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 272 5 117 289 0 164 740 77 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 302 6 130 321 0 183 822 86 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 302 6 130 321 0 183 822 86 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 302 6 130 321 0 183 822 86 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.88 0.88 0.57 0.85 1.00 0.84 0.84 0.84 1.00 1.00 1.00
Lanes: 0.00 1.96 0.04 1.00 1.00 0.00 0.50 2.26 0.24 0.00 0.00 0.00
Final Sat.: 0 3266 63 1079 1615 0 805 3626 379 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.09 0.09 0.12 0.20 0.00 0.23 0.23 0.23 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.50 0.50 0.50 0.50 0.00 0.30 0.30 0.30 0.00 0.00 0.00
Volume/Cap: 0.00 0.18 0.18 0.24 0.40 0.00 0.76 0.76 0.76 0.00 0.00 0.00
Delay/Veh: 0.0 5.6 5.6 5.9 6.6 0.0 15.0 15.0 15.0 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 5.6 5.6 5.9 6.6 0.0 15.0 15.0 15.0 0.0 0.0 0.0
DesignQueue: 0 3 0 0 1 4 0 3 13 1 0 0 0

Uptown Project Traffic Impact Analysis  
Year 2010 No Project - AM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #17 Broadway/ W. Grand Ave.

Cycle (sec): 85 Critical Vol./Cap. (X): 0.937  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 28.2  
Optimal Cycle: 115 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	37	0	0	37	0	0	42	0	0	42	0
Lanes:	1	0	2	0	1	1	1	0	1	0	1	0

Volume Module:

Base Vol:	119	421	39	89	861	81	115	492	124	27	439	95
Growth Adj:	1.20	1.20	1.20	1.05	1.05	1.05	1.29	1.29	1.29	1.41	1.41	1.41
Initial Bse:	143	505	47	93	904	85	148	635	160	38	619	134
Added Vol:	0	0	0	0	0	0	1	5	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	143	505	47	93	904	85	149	640	160	38	621	134
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	150	532	49	98	952	90	157	673	168	40	654	141
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	150	532	49	98	952	90	157	673	168	40	654	141
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	150	532	49	98	952	90	157	673	168	40	654	141

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.14	0.95	0.72	0.39	0.87	0.87	0.25	0.85	0.85	0.75	0.75	0.75
Lanes:	1.00	2.00	1.00	1.00	1.83	0.17	1.00	1.60	0.40	0.09	1.57	0.34
Final Sat.:	270	3610	1373	735	3012	283	475	2591	648	137	2228	481

Capacity Analysis Module:

Vol/Sat:	0.56	0.15	0.04	0.13	0.32	0.32	0.33	0.26	0.26	0.29	0.29	0.29
Crit Moves:	****											
Green/Cycle:	0.43	0.43	0.43	0.43	0.43	0.43	0.48	0.48	0.48	0.48	0.48	0.48
Volume/Cap:	1.31	0.35	0.08	0.31	0.74	0.74	0.69	0.54	0.54	0.61	0.61	0.61
Delay/Veh:	213.6	17.5	15.2	19.2	24.6	24.6	32.8	17.1	17.1	18.5	18.5	18.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	213.6	17.5	15.2	19.2	24.6	24.6	32.8	17.1	17.1	18.5	18.5	18.5
DesignQueue:	4	15	1	3	28	3	4	18	4	1	17	4

Uptown Project Traffic Impact Analysis  
Year 2010 No Project - AM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #18 Broadway/ 20th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.526  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 13.5  
Optimal Cycle: 43 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	15	0	0	15	0	0	20	0	0	20	0
Lanes:	0	1	0	1	0	1	0	1	0	0	1	0

Volume Module:

Base Vol:	16	328	40	80	562	81	36	218	31	60	151	75
Growth Adj:	1.07	1.07	1.07	1.19	1.19	1.19	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	17	351	43	95	669	96	36	218	31	60	151	75
Added Vol:	0	0	0	0	0	0	0	2	0	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	17	351	43	95	669	96	36	220	31	60	152	75
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.90	0.90	0.90	0.89	0.89	0.89	0.90	0.90	0.90
PHF Volume:	18	377	46	106	743	107	40	247	35	67	169	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	377	46	106	743	107	40	247	35	67	169	83
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	18	377	46	106	743	107	40	247	35	67	169	83

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.68	0.68	0.68	0.44	0.75	0.75	0.67	0.67	0.67	0.62	0.62	0.62
Lanes:	0.08	1.71	0.21	1.00	1.75	0.25	0.25	1.53	0.22	0.42	1.06	0.52
Final Sat.:	108	2219	271	834	2507	361	319	1952	275	489	1240	612

Capacity Analysis Module:

Vol/Sat:	0.17	0.17	0.17	0.13	0.30	0.30	0.13	0.13	0.13	0.14	0.14	0.14
Crit Moves:	****											
Green/Cycle:	0.38	0.38	0.38	0.38	0.38	0.38	0.44	0.44	0.44	0.44	0.44	0.44
Volume/Cap:	0.45	0.45	0.45	0.34	0.78	0.78	0.28	0.28	0.28	0.31	0.31	0.31
Delay/Veh:	12.0	12.0	12.0	12.8	18.1	18.1	8.6	8.6	8.6	8.8	8.8	8.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.0	12.0	12.0	12.8	18.1	18.1	8.6	8.6	8.6	8.8	8.8	8.8
DesignQueue:	0	6	1	2	12	2	1	4	0	1	2	1



Uptown Project Traffic Impact Analysis  
Year 2010 No Project - AM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #19 Broadway/ 19th St.  
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Cycle (sec): 60 Critical Vol./Cap. (X): 0.370  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 13.4  
Optimal Cycle: 60 Level of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Rights:	0 21 0			0 21 0			0 0 0			0 31 0		
Min. Green:	0 21 0			0 21 0			0 0 0			0 31 0		
Lanes:	0 1 1 0 0			0 0 2 1 0			0 0 0 0 0			0 1 0 1 0		
Volume Module:	22 346 0			0 518 64			0 0 0			27 278 78		
Growth Adj:	1.06 1.06 1.06			1.19 1.19 1.19			1.00 1.00 1.00			1.10 1.10 1.10		
Initial Bse:	23 367 0			0 616 76			0 0 0			30 306 86		
Added Vol:	0 0 0			0 0 0			0 0 0			0 1 0		
PasserByVol:	0 0 0			0 0 0			0 0 0			0 0 0		
Initial Fut:	23 367 0			0 616 76			0 0 0			30 307 86		
User Adj:	1.00 1.00 1.00			1.00 1.00 1.00			1.00 1.00 1.00			1.00 1.00 1.00		
PHF Adj:	0.90 0.90 0.90			0.90 0.90 0.90			0.90 0.90 0.90			0.90 0.90 0.90		
PHF Volume:	26 408 0			0 685 85			0 0 0			33 341 95		
Reduct Vol:	0 0 0			0 0 0			0 0 0			0 0 0		
Reduced Vol:	26 408 0			0 685 85			0 0 0			33 341 95		
PCE Adj:	1.00 1.00 1.00			1.00 1.00 1.00			1.00 1.00 1.00			1.00 1.00 1.00		
MLF Adj:	1.00 1.00 1.00			1.00 1.00 1.00			1.00 1.00 1.00			1.00 1.00 1.00		
Final Vol.:	26 408 0			0 685 85			0 0 0			33 341 95		
Saturation Flow Module:	1900 1900 1900			1900 1900 1900			1900 1900 1900			1900 1900 1900		
Adjustment:	0.75 0.75 1.00			1.00 0.81 0.81			1.00 1.00 1.00			0.80 0.80 0.80		
Lanes:	0.12 1.88 0.00			0.00 2.67 0.33			0.00 0.00 0.00			0.14 1.45 0.41		
Final Sat.:	170 2676 0			0 4088 505			0 0 0			215 2221 621		
Capacity Analysis Module:	0.15 0.15 0.00			0.00 0.17 0.17			0.00 0.00 0.00			0.15 0.15 0.15		
Crit Moves:	0.35 0.35 0.00			0.00 0.35 0.35			0.00 0.00 0.00			0.52 0.52 0.52		
Volume/Cap:	0.44 0.44 0.00			0.00 0.48 0.48			0.00 0.00 0.00			0.30 0.30 0.30		
Delay/Veh:	15.3 15.3 0.0			0.0 15.5 15.5			0.0 0.0 0.0			8.4 8.4 8.4		
User DelAdj:	1.00 1.00 1.00			1.00 1.00 1.00			1.00 1.00 1.00			1.00 1.00 1.00		
AdjDel/Veh:	15.3 15.3 0.0			0.0 15.5 15.5			0.0 0.0 0.0			8.4 8.4 8.4		
DesignQueue:	1 9 0			0 15 2			0 0 0			1 6 2		

Uptown Project Traffic Impact Analysis  
Year 2010 No Project - AM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #20 Broadway/ 17th St.  
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Cycle (sec): 60 Critical Vol./Cap. (X): 0.614  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 16.0  
Optimal Cycle: 60 Level of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Rights:	0 27 0			0 27 0			0 25 0			0 0 0		
Min. Green:	0 27 0			0 27 0			0 25 0			0 0 0		
Lanes:	0 0 1 1 0			0 1 2 0 0			1 0 1 1 0			0 0 0 0 0		
Volume Module:	0 247 79			100 483 0			76 703 30			0 0 0		
Growth Adj:	1.01 1.01 1.01			1.07 1.07 1.07			1.19 1.19 1.19			1.00 1.00 1.00		
Initial Bse:	0 249 80			107 517 0			90 837 36			0 0 0		
Added Vol:	0 0 0			0 0 0			0 3 0			0 0 0		
PasserByVol:	0 0 0			0 0 0			0 0 0			0 0 0		
Initial Fut:	0 249 80			107 517 0			90 840 36			0 0 0		
User Adj:	1.00 1.00 1.00			1.00 1.00 1.00			1.00 1.00 1.00			1.00 1.00 1.00		
PHF Adj:	0.90 0.90 0.90			0.90 0.90 0.90			0.90 0.90 0.90			0.90 0.90 0.90		
PHF Volume:	0 277 89			119 574 0			100 933 40			0 0 0		
Reduct Vol:	0 0 0			0 0 0			0 0 0			0 0 0		
Reduced Vol:	0 277 89			119 574 0			100 933 40			0 0 0		
PCE Adj:	1.00 1.00 1.00			1.00 1.00 1.00			1.00 1.00 1.00			1.00 1.00 1.00		
MLF Adj:	1.00 1.00 1.00			1.00 1.00 1.00			1.00 1.00 1.00			1.00 1.00 1.00		
Final Vol.:	0 277 89			119 574 0			100 933 40			0 0 0		
Saturation Flow Module:	1900 1900 1900			1900 1900 1900			1900 1900 1900			1900 1900 1900		
Adjustment:	1.00 0.74 0.74			0.61 0.61 1.00			0.89 0.76 0.76			1.00 1.00 1.00		
Lanes:	0.00 1.52 0.48			0.51 2.49 0.00			1.00 1.92 0.08			0.00 0.00 0.00		
Final Sat.:	0 2136 683			601 2902 0			1700 2788 119			0 0 0		
Capacity Analysis Module:	0.00 0.13 0.13			0.20 0.20 0.00			0.06 0.33 0.33			0.00 0.00 0.00		
Crit Moves:	0.00 0.45 0.45			0.45 0.45 0.00			0.42 0.42 0.42			0.00 0.00 0.00		
Volume/Cap:	0.00 0.29 0.29			0.44 0.44 0.00			0.14 0.80 0.80			0.00 0.00 0.00		
Delay/Veh:	0.0 11.0 11.0			12.2 12.2 0.0			11.3 21.0 21.0			0.0 0.0 0.0		
User DelAdj:	1.00 1.00 1.00			1.00 1.00 1.00			1.00 1.00 1.00			1.00 1.00 1.00		
AdjDel/Veh:	0.0 11.0 11.0			12.2 12.2 0.0			11.3 21.0 21.0			0.0 0.0 0.0		
DesignQueue:	0 5 2			2 11 0			2 19 1			0 0 0		

Uptown Project Traffic Impact Analysis  
Year 2010 No Project - AM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #21 Broadway/ 15th St.  
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Cycle (sec): 60 Critical Vol./Cap. (X): 0.344  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 7.8  
Optimal Cycle: 33 Level of Service: A

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	25	0	0	25	0	0	0	0	0	0	0
Lanes:	0	1	1	0	0	2	0	0	0	0	0	2

Volume Module:

Base Vol:	0	492	0	0	531	0	0	0	0	0	162
Growth Adj:	1.01	1.01	1.01	1.03	1.03	1.03	1.00	1.00	1.00	1.14	1.14
Initial Bse:	0	497	0	0	547	0	0	0	0	0	185
Added Vol:	0	1	0	0	2	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	498	0	0	549	0	0	0	0	0	185
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	553	0	0	610	0	0	0	0	0	205
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	553	0	0	610	0	0	0	0	0	205
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	553	0	0	610	0	0	0	0	0	205

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.77	1.00	1.00	0.77	1.00	1.00	1.00	1.00	1.00	0.61
Lanes:	0.00	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	2.00
Final Sat.:	0	2924	0	0	2924	0	0	0	0	0	2302

Capacity Analysis Module:

Vol/Sat:	0.00	0.19	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.09
Crit Moves:	****										
Green/Cycle:	0.00	0.61	0.00	0.00	0.61	0.00	0.00	0.00	0.00	0.00	0.26
Volume/Cap:	0.00	0.31	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.34
Delay/Veh:	0.0	5.8	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	18.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	5.8	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	18.4
DesignQueue:	0	8	0	0	8	0	0	0	0	0	5

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Uptown Project Traffic Impact Analysis  
Year 2010 No Project - AM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #22 Broadway/ 14th St.  
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Cycle (sec): 60 Critical Vol./Cap. (X): 0.488  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 12.8  
Optimal Cycle: 60 Level of Service: B

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	29	0	0	29	0	0	23	0	0	23	0
Lanes:	0	0	1	0	0	2	0	0	1	0	0	1

Volume Module:

Base Vol:	0	364	58	0	611	121	0	231	129	0	403	127
Growth Adj:	1.02	1.02	1.02	1.06	1.06	1.06	1.00	1.00	1.00	1.05	1.05	1.05
Initial Bse:	0	371	59	0	648	128	0	231	129	0	423	133
Added Vol:	0	0	0	0	2	0	0	0	0	0	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	371	59	0	650	128	0	231	129	0	423	134
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	413	66	0	722	143	0	257	143	0	470	149
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	413	66	0	722	143	0	257	143	0	470	149
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	413	66	0	722	143	0	257	143	0	470	149

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.75	0.75	1.00	0.75	0.75	1.00	0.73	0.73	1.00	0.74	0.74
Lanes:	0.00	1.73	0.27	0.00	2.51	0.49	0.00	1.28	0.72	0.00	1.52	0.48
Final Sat.:	0	2469	393	0	3548	700	0	1775	991	0	2140	679

Capacity Analysis Module:

Vol/Sat:	0.00	0.17	0.17	0.00	0.20	0.20	0.00	0.14	0.14	0.00	0.22	0.22
Crit Moves:	****											
Green/Cycle:	0.00	0.48	0.48	0.00	0.48	0.48	0.00	0.38	0.38	0.00	0.38	0.38
Volume/Cap:	0.00	0.35	0.35	0.00	0.42	0.42	0.00	0.38	0.38	0.00	0.57	0.57
Delay/Veh:	0.0	10.3	10.3	0.0	10.7	10.7	0.0	14.4	14.4	0.0	16.8	16.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	10.3	10.3	0.0	10.7	10.7	0.0	14.4	14.4	0.0	16.8	16.8
DesignQueue:	0	7	1	0	13	3	0	5	3	0	10	3

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Uptown Project Traffic Impact Analysis  
Year 2010 No Project - AM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #23 Frontage Rd./ W. Grand Ave.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.746  
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 33.0  
Optimal Cycle: 74 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	7	0	0	4	0	0
Lanes:	1	0	1	1	0	0	1	0	1	1	0	1

Volume Module:

Base Vol:	51	127	138	156	122	49	56	308	48	104	532	244
Growth Adj:	1.02	1.02	1.02	1.20	1.20	1.20	1.02	1.02	1.02	1.14	1.14	1.14
Initial Bse:	52	130	141	187	146	59	57	314	49	119	606	278
Added Vol:	0	0	0	0	0	0	0	2	0	0	4	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	52	130	141	187	146	59	57	316	49	119	610	278
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	55	136	148	197	154	62	60	333	52	125	643	293
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	136	148	197	154	62	60	333	52	125	643	293
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	55	136	148	197	154	62	60	333	52	125	643	293

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.83	0.83	0.93	0.93	0.81	0.90	0.89	0.89	0.90	0.86	0.86
Lanes:	1.00	1.00	1.00	0.56	0.44	1.00	1.00	1.73	0.27	1.00	1.37	0.63
Final Sat.:	1718	1584	1584	988	772	1537	1718	2916	452	1718	2250	1025

Capacity Analysis Module:

Vol/Sat:	0.03	0.09	0.09	0.20	0.20	0.04	0.03	0.11	0.11	0.07	0.29	0.29
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.12	0.12	0.12	0.26	0.26	0.26	0.08	0.27	0.27	0.17	0.37	0.37
Volume/Cap:	0.26	0.72	0.78	0.78	0.78	0.16	0.45	0.42	0.42	0.42	0.78	0.78
Delay/Veh:	36.7	44.2	48.5	39.4	39.4	26.1	42.1	27.2	27.2	34.1	28.5	28.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	36.7	44.2	48.5	39.4	39.4	26.1	42.1	27.2	27.2	34.1	28.5	28.5
DesignQueue:	2	6	7	8	6	2	3	12	2	5	22	10

Uptown Project Traffic Impact Analysis  
Year 2010 No Project - AM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #24 Mandela Pkwy/ W. Grand Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.332  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 18.1  
Optimal Cycle: 118 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	35	0	0	35	0	0	75	0	0	75	0
Lanes:	0	1	0	0	1	0	1	0	1	1	0	1

Volume Module:

Base Vol:	65	91	83	16	141	144	113	334	71	171	558	31
Growth Adj:	1.05	1.05	1.05	1.28	1.28	1.28	1.20	1.20	1.20	1.03	1.03	1.03
Initial Bse:	68	96	87	20	180	184	136	403	85	176	575	32
Added Vol:	0	0	0	0	0	0	0	2	0	0	4	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	68	96	87	20	180	184	136	403	85	176	579	32
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	68	96	87	20	180	184	136	403	85	176	579	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	68	96	87	20	180	184	136	403	85	176	579	32
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	68	96	87	20	180	184	136	403	85	176	579	32

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.62	0.62	0.62	0.78	0.78	0.78	0.36	0.88	0.88	0.43	0.90	0.90
Lanes:	0.54	0.77	0.69	0.10	0.94	0.96	1.00	1.65	0.35	1.00	1.90	0.10
Final Sat.:	636	891	812	157	1383	1413	693	2763	584	810	3231	178

Capacity Analysis Module:

Vol/Sat:	0.11	0.11	0.11	0.13	0.13	0.13	0.20	0.15	0.15	0.22	0.18	0.18
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.31	0.31	0.31	0.31	0.31	0.31	0.63	0.63	0.63	0.63	0.63	0.63
Volume/Cap:	0.35	0.35	0.35	0.42	0.42	0.42	0.31	0.23	0.23	0.35	0.29	0.29
Delay/Veh:	33.5	33.5	33.5	34.5	34.5	34.5	12.4	10.1	10.1	12.7	10.6	10.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	33.5	33.5	33.5	34.5	34.5	34.5	12.4	10.1	10.1	12.7	10.6	10.6
DesignQueue:	3	4	4	1	9	9	3	10	2	5	15	1

Uptown Project Traffic Impact Analysis  
Year 2010 No Project - AM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #25 Northgate Ave./ W. Grand Ave.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.826  
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 31.0  
Optimal Cycle: 80 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	20	0	20	7	40	0	0	0	0
Lanes:	0	0	0	2	0	0	1	0	2	0	0	1

Volume Module: >> Count Date: 9 Nov 2000 <<

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	645	0	234	191	532	0	0	671	60
Growth Adj:	1.00	1.00	1.00	1.23	1.23	1.23	1.21	1.21	1.21	1.46	1.46	1.46
Initial Bse:	0	0	0	793	0	288	231	644	0	0	980	88
Added Vol:	0	0	0	1	0	1	2	0	0	0	0	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	794	0	289	233	644	0	0	980	90
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	836	0	304	245	678	0	0	1031	94
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	836	0	304	245	678	0	0	1031	94
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	836	0	304	245	678	0	0	1031	94

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	1.00	1.00	1.00	0.92	1.00	0.72	0.95	0.88	1.00	1.00	0.87	0.87
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	1.83	0.17
Final Sat.:	0	0	0	3502	0	1373	1805	3339	0	0	3020	276

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.00	0.00	0.29	0.00	0.29	0.16	0.58	0.00	0.00	0.41	0.41
Volume/Cap:	0.00	0.00	0.00	0.83	0.00	0.77	0.83	0.35	0.00	0.00	0.83	0.83
Delay/Veh:	0.0	0.0	0.0	37.6	0.0	42.5	58.8	10.6	0.0	0.0	29.4	29.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	37.6	0.0	42.5	58.8	10.6	0.0	0.0	29.4	29.4
DesignQueue:	0	0	0	32	0	11	11	15	0	0	33	3

Uptown Project Traffic Impact Analysis  
Year 2010 No Project - AM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #26 Webster St./Grand Ave.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.699  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 24.4  
Optimal Cycle: 52 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	20	0	0	15	0	9	15	0
Lanes:	0	0	0	0	1	0	0	1	0	1	0	1

Volume Module: >> Count Date: 8 Jul 2003 <<

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	17	203	21	53	355	321	120	424	32
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.23	1.23	1.23	1.36	1.36	1.36
Initial Bse:	0	0	0	17	203	21	65	437	395	163	577	44
Added Vol:	0	0	0	0	0	0	0	5	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	17	203	21	65	442	395	163	579	44
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	0.90	0.90	0.90	0.94	0.94	0.94	0.94	0.97	0.97
PHF Volume:	0	0	0	19	226	23	69	468	418	169	599	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	19	226	23	69	468	418	169	599	45
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	19	226	23	69	468	418	169	599	45

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	1.00	1.00	1.00	0.85	0.85	0.72	0.70	0.70	0.70	0.95	0.87	0.87
Lanes:	0.00	0.00	0.00	0.08	0.92	1.00	0.14	0.98	0.88	1.00	1.86	0.14
Final Sat.:	0	0	0	125	1490	1373	191	1297	1159	1805	3075	231

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.00	0.00	0.33	0.33	0.33	0.38	0.38	0.38	0.15	0.53	0.53
Volume/Cap:	0.00	0.00	0.00	0.45	0.45	0.05	0.94	0.94	0.94	0.62	0.37	0.37
Delay/Veh:	0.0	0.0	0.0	18.5	18.5	13.8	35.0	35.0	35.0	34.3	8.7	8.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	18.5	18.5	13.8	35.0	35.0	35.0	34.3	8.7	8.7
DesignQueue:	0	0	0	0	5	1	2	10	9	5	10	1

Uptown Project Traffic Impact Analysis  
Year 2010 No Project - AM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #27 Harrison St./ Grand Ave.  
\*\*\*\*\*

Cycle (sec): 90 Critical Vol./Cap. (X): 0.754  
Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 25.1  
Optimal Cycle: 66 Level Of Service: C

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	2	0	1	1	2	0	1	2	0	1

Volume Module: >> Count Date: 14 Nov 2000 <<

	North	South	East	West
Base Vol:	63 717 244	8 1131 78	57 239 128	484 704 124
Growth Adj:	1.20 1.20 1.20	1.12 1.12 1.12	1.22 1.22 1.22	1.14 1.14 1.14
Initial Bse:	76 860 293	9 1267 87	70 292 156	552 803 141
Added Vol:	0 0 0	0 0 0	1 4 0	0 2 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	76 860 293	9 1267 87	71 296 156	552 805 141
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.95 0.95 0.95	0.95 0.95 0.95	0.95 0.95 0.95	0.95 0.95 0.95
PHF Volume:	80 906 308	9 1333 92	74 311 164	581 847 149
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	80 906 308	9 1333 92	74 311 164	581 847 149
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	80 906 308	9 1333 92	74 311 164	581 847 149

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.12	0.95	0.85	0.84	0.84	0.84	0.92	0.90	0.90
Lanes:	1.00	2.00	1.00	0.02	2.79	0.19	2.00	1.31	0.69
Final Sat.:	228	3610	1615	31	4424	305	3502	2239	1183

Capacity Analysis Module:

Vol/Sat:	0.35	0.25	0.19	0.30	0.30	0.30	0.02	0.14	0.14	0.17	0.28	0.28
Crit Moves:	****											
Green/Cycle:	0.46	0.46	0.68	0.46	0.46	0.46	0.03	0.18	0.18	0.22	0.38	0.38
Volume/Cap:	0.75	0.54	0.28	0.65	0.65	0.65	0.75	0.75	0.75	0.75	0.75	0.75
Delay/Veh:	46.1	17.7	5.7	19.3	19.3	19.3	70.4	39.9	39.9	37.1	26.9	26.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	46.1	17.7	5.7	19.3	19.3	19.3	70.4	39.9	39.9	37.1	26.9	26.9
DesignQueue:	2	26	5	0	38	3	4	13	7	24	28	5

Uptown Project Traffic Impact Analysis  
Year 2010 No Project - AM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #28 El Embarcadero/ Grand Ave.  
\*\*\*\*\*

Cycle (sec): 90 Critical Vol./Cap. (X): 0.457  
Loss Time (sec): 12 (Y+R = 8 sec) Average Delay (sec/veh): 19.4  
Optimal Cycle: 67 Level Of Service: B

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	15	0	0	0	0	0	0	30	0	10	30	0
Lanes:	1	0	0	0	0	0	0	0	2	0	1	1

Volume Module: >> Count Date: 9 Jul 2003 <<

	North	South	East	West
Base Vol:	346 0 245	0 0 0	0 357 254	91 802 0
Growth Adj:	1.05 1.05 1.05	1.00 1.00 1.00	1.07 1.07 1.07	1.04 1.04 1.04
Initial Bse:	363 0 257	0 0 0	0 382 272	95 834 0
Added Vol:	1 0 0	0 0 0	0 4 0	0 1 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	364 0 257	0 0 0	0 386 272	95 835 0
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.91 0.91 0.91	1.00 1.00 1.00	0.91 0.91 0.91	0.90 0.90 0.90
PHF Volume:	399 0 282	0 0 0	0 422 297	105 928 0
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	399 0 282	0 0 0	0 422 297	105 928 0
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	399 0 282	0 0 0	0 422 297	105 928 0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	1.00	1.00	1.00	1.00	0.95	0.68
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00
Final Sat.:	1805	0	1615	0	0	0	0	3610	1292

Capacity Analysis Module:

Vol/Sat:	0.22	0.00	0.17	0.00	0.00	0.00	0.00	0.12	0.23	0.06	0.29	0.00
Crit Moves:	****											
Green/Cycle:	0.42	0.00	0.42	0.00	0.00	0.00	0.00	0.33	0.76	0.11	0.44	0.00
Volume/Cap:	0.52	0.00	0.41	0.00	0.00	0.00	0.00	0.35	0.30	0.52	0.64	0.00
Delay/Veh:	20.0	0.0	18.6	0.0	0.0	0.0	0.0	22.8	3.7	40.3	20.4	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	20.0	0.0	18.6	0.0	0.0	0.0	0.0	22.8	3.7	40.3	20.4	0.0
DesignQueue:	12	0	8	0	0	0	0	14	4	5	28	0

Uptown Project Traffic Impact Analysis
Year 2010 No Project - AM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #29 MacArthur Blvd./ Grand Ave.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.659
Loss Time (sec): 12 (Y+R = 8 sec) Average Delay (sec/veh): 22.5
Optimal Cycle: 74 Level of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 25 0 25 0 12 25 0
Lanes: 0 0 0 0 0 1 1 1 0 0 0 2 0 1 1 0 3 0 0
Volume Module: >> Count Date: 9 Nov 2000 <<
Base Vol: 0 0 0 278 512 188 0 551 150 277 1062 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.17 1.17 1.17
Initial Bse: 0 0 0 278 512 188 0 551 150 324 1243 0
Added Vol: 0 0 0 0 0 0 0 0 4 0 1 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 278 512 188 0 551 154 324 1244 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 0 0 293 539 198 0 580 162 341 1309 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 293 539 198 0 580 162 341 1309 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 293 539 198 0 580 162 341 1309 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.86 0.86 0.86 1.00 0.95 0.85 0.95 0.91 1.00
Lanes: 0.00 0.00 0.00 0.85 1.57 0.58 0.00 2.00 1.00 1.00 3.00 0.00
Final Sat.: 0 0 0 1390 2560 940 0 3610 1615 1805 5187 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.21 0.21 0.21 0.00 0.16 0.10 0.19 0.25 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.00 0.00 0.31 0.31 0.31 0.00 0.31 0.31 0.23 0.54 0.00
Volume/Cap: 0.00 0.00 0.00 0.67 0.67 0.67 0.00 0.51 0.32 0.84 0.47 0.00
Delay/Veh: 0.0 0.0 0.0 26.3 26.3 26.3 0.0 24.2 22.7 48.1 12.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 26.3 26.3 26.3 0.0 24.2 22.7 48.1 12.0 0.0
DesignQueue: 0 0 0 9 17 6 0 18 5 12 29 0

Uptown Project Traffic Impact Analysis
Year 2010 No Project - AM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #30 MacArthur Blvd./ Lake Shore Ave.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.522
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 16.8
Optimal Cycle: 76 Level of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Prot+Permit
Rights: Include Ignore Include Include
Min. Green: 0 0 0 0 22 0 30 0 12 30 0
Lanes: 0 0 0 0 0 1 1 2 0 1 0 0 2 0 1 1 0 2 0 0
Volume Module: >> Count Date: 9 Jul 2000 <<
Base Vol: 0 0 0 233 435 94 0 457 237 265 648 0
Growth Adj: 1.00 1.00 1.00 1.08 1.08 1.08 1.04 1.04 1.04 1.04 1.04 1.04
Initial Bse: 0 0 0 252 470 102 0 475 246 276 674 0
Added Vol: 0 0 0 0 4 0 0 0 0 0 1 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 252 474 102 0 475 246 276 675 0
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 0.90 0.90 0.00 0.95 0.95 0.95 0.90 0.90 0.90
PHF Volume: 0 0 0 279 525 0 0 499 259 305 748 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 279 525 0 0 499 259 305 748 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 279 525 0 0 499 259 305 748 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.77 0.77 1.00 1.00 0.95 0.85 0.55 0.95 1.00
Lanes: 0.00 0.00 0.00 1.39 2.61 1.00 0.00 2.00 1.00 1.00 2.00 0.00
Final Sat.: 0 0 0 2039 3839 1900 0 3610 1615 1040 3610 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.14 0.14 0.00 0.00 0.14 0.16 0.29 0.21 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.00 0.00 0.28 0.28 0.00 0.00 0.38 0.38 0.58 0.58 0.00
Volume/Cap: 0.00 0.00 0.00 0.50 0.50 0.00 0.00 0.37 0.43 0.51 0.36 0.00
Delay/Veh: 0.0 0.0 0.0 24.6 24.6 0.0 0.0 18.3 19.1 10.1 9.2 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 24.6 24.6 0.0 0.0 18.3 19.1 10.1 9.2 0.0
DesignQueue: 0 0 0 9 17 0 0 14 7 11 15 0

Uptown Project Traffic Impact Analysis  
Year 2010 No Project - AM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)  
\*\*\*\*\*  
Intersection #31 Lake Park Ave./ Lake Shore Ave.  
\*\*\*\*\*  
Cycle (sec): 80 Critical Vol./Cap. (X): 0.954  
Loss Time (sec): 16 (Y+R = 12 sec) Average Delay (sec/veh): 70.6  
Optimal Cycle: 120 Level Of Service: E  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
-----  
Control: Split Phase Split Phase Protected Protected  
Rights: Include Include Include Include  
Min. Green: 0 15 0 7 0 0 15 20 0 0 20 0  
Lanes: 1 0 1 0 1 1 0 0 0 1 1 0 2 0 0 0 0 1 1 0  
-----  
Volume Module: >> Count Date: 17 Jul 2003 <<  
Base Vol: 483 585 212 30 0 20 302 343 0 0 431 291  
Growth Adj: 1.03 1.03 1.03 1.07 1.07 1.07 1.02 1.02 1.02 1.03 1.03 1.03  
Initial Bse: 497 603 218 32 0 21 308 350 0 0 444 300  
Added Vol: 1 1 0 0 0 0 0 0 0 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 498 604 218 32 0 21 308 350 0 0 444 300  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95  
PHF Volume: 525 635 230 34 0 23 324 368 0 0 467 316  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 525 635 230 34 0 23 324 368 0 0 467 316  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 525 635 230 34 0 23 324 368 0 0 467 316  
-----  
Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.95 1.00 0.85 0.95 1.00 0.85 0.95 0.95 1.00 1.00 0.89 0.89  
Lanes: 1.00 1.00 1.00 1.00 0.00 1.00 1.00 2.00 0.00 0.00 1.19 0.81  
Final Sat.: 1805 1900 1615 1805 0 1615 1805 3610 0 0 2026 1368  
-----  
Capacity Analysis Module:  
Vol/Sat: 0.29 0.33 0.14 0.02 0.00 0.01 0.18 0.10 0.00 0.00 0.23 0.23  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.27 0.27 0.27 0.09 0.00 0.09 0.19 0.44 0.00 0.00 0.25 0.25  
Volume/Cap: 1.06 1.22 0.52 0.21 0.00 0.16 0.96 0.23 0.00 0.00 0.92 0.92  
Delay/Veh: 85.3 143 25.6 34.6 0.0 34.3 70.0 14.2 0.0 0.0 44.6 44.6  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 85.3 143 25.6 34.6 0.0 34.3 70.0 14.2 0.0 0.0 44.6 44.6  
DesignQueue: 18 22 8 1 0 1 12 9 0 0 4 11  
\*\*\*\*\*

Uptown Project Traffic Impact Analysis  
Year 2010 No Project - AM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)  
\*\*\*\*\*  
Intersection #32 Brush St./ 18th St.  
\*\*\*\*\*  
Cycle (sec): 75 Critical Vol./Cap. (X): 0.483  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 7.0  
Optimal Cycle: 63 Level Of Service: A  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
-----  
Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 45 0 0 0 0 0 10 0  
Lanes: 0 0 0 0 0 0 0 3 1 0 0 0 0 0 1 0 2 0 0  
-----  
Volume Module:  
Base Vol: 0 0 0 0 1890 154 0 0 0 62 143 0  
Growth Adj: 1.00 1.00 1.00 1.10 1.10 1.10 1.00 1.00 1.00 1.51 1.51 1.51  
Initial Bse: 0 0 0 0 2079 169 0 0 0 94 216 0  
Added Vol: 0 0 0 0 0 0 0 0 0 5 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 0 0 0 0 2079 169 0 0 0 99 216 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 0 0 0 0 2310 188 0 0 0 110 240 0  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 0 0 0 2310 188 0 0 0 110 240 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 0 0 0 0 2310 188 0 0 0 110 240 0  
-----  
Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 1.00 1.00 1.00 0.90 0.90 1.00 1.00 1.00 0.85 0.95 1.00  
Lanes: 0.00 0.00 0.00 0.00 3.70 0.30 0.00 0.00 0.00 1.00 2.00 0.00  
Final Sat.: 0 0 0 0 6325 515 0 0 0 1615 3610 0  
-----  
Capacity Analysis Module:  
Vol/Sat: 0.00 0.00 0.00 0.00 0.37 0.37 0.00 0.00 0.00 0.07 0.07 0.00  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.00 0.00 0.00 0.00 0.76 0.76 0.00 0.00 0.00 0.14 0.14 0.00  
Volume/Cap: 0.00 0.00 0.00 0.00 0.48 0.48 0.00 0.00 0.00 0.49 0.48 0.00  
Delay/Veh: 0.0 0.0 0.0 0.0 3.6 3.6 0.0 0.0 0.0 31.6 30.6 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 0.0 0.0 0.0 3.6 3.6 0.0 0.0 0.0 31.6 30.6 0.0  
DesignQueue: 0 0 0 0 2 2 0 0 0 4 9 0  
\*\*\*\*\*

Uptown Project Traffic Impact Analysis
Year 2010 No Project - AM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #33 18th St./ Castro St.
Cycle (sec): 40 Critical Vol./Cap. (X): 0.318
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 7.9
Optimal Cycle: 41 Level Of Service: A
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 20 0 0 0 0 0 0 0 0 13 0
Lanes: 1 1 3 0 0 0 0 0 0 0 0 1 1
Volume Module:
Base Vol: 189 726 0 0 0 0 0 0 0 0 24 205
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.50 1.50 1.50
Initial Bse: 189 726 0 0 0 0 0 0 0 0 36 308
Added Vol: 0 0 0 0 0 0 0 0 0 0 5 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 189 726 0 0 0 0 0 0 0 0 41 308
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 210 807 0 0 0 0 0 0 0 0 46 342
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 210 807 0 0 0 0 0 0 0 0 46 342
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 210 807 0 0 0 0 0 0 0 0 46 342
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.77 0.77 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.87 0.87
Lanes: 1.03 3.97 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.24 1.76
Final Sat.: 1518 5830 0 0 0 0 0 0 0 0 388 2910
Capacity Analysis Module:
Vol/Sat: 0.14 0.14 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.12 0.12
Crit Moves: \*\*\*\*
Green/Cycle: 0.49 0.49 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.32 0.32
Volume/Cap: 0.28 0.28 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.37 0.37
Delay/Veh: 6.4 6.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 11.8 11.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 6.4 6.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 11.8 11.8
DesignQueue: 3 10 0 0 0 0 0 0 0 0 1 5

Uptown Project Traffic Impact Analysis
Year 2010 No Project - AM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #34 MLK Jr. Way/ 18th St.
Cycle (sec): 60 Critical Vol./Cap. (X): 0.158
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 11.1
Optimal Cycle: 62 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 27 0 0 27 0 0 0 0 0 27 0
Lanes: 0 1 1 0 0 0 0 1 1 0 0 0 0 0 1 0 2 1 0
Volume Module: >> Count Date: 8 Jul 2003 <<
Base Vol: 11 137 0 0 142 60 0 0 0 20 60 21
Growth Adj: 1.14 1.14 1.14 1.61 1.61 1.61 1.00 1.00 1.00 1.23 1.23 1.23
Initial Bse: 13 156 0 0 229 97 0 0 0 25 74 26
Added Vol: 0 0 0 0 0 0 0 0 0 0 5 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 13 156 0 0 229 97 0 0 0 25 79 26
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 1.00 1.00 1.00 0.90 0.90 0.90
PHF Volume: 14 173 0 0 254 107 0 0 0 27 88 29
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 14 173 0 0 254 107 0 0 0 27 88 29
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 14 173 0 0 254 107 0 0 0 27 88 29
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.81 0.81 1.00 1.00 0.84 0.84 1.00 1.00 1.00 0.96 0.83 0.83
Lanes: 0.15 1.85 0.00 0.00 1.41 0.59 0.00 0.00 0.00 1.00 2.26 0.74
Final Sat.: 229 2847 0 0 2242 947 0 0 0 1830 3574 1171
Capacity Analysis Module:
Vol/Sat: 0.06 0.06 0.00 0.00 0.11 0.11 0.00 0.00 0.00 0.01 0.02 0.02
Crit Moves: \*\*\*\*
Green/Cycle: 0.44 0.44 0.00 0.00 0.44 0.44 0.00 0.00 0.00 0.44 0.44 0.44
Volume/Cap: 0.14 0.14 0.00 0.00 0.26 0.26 0.00 0.00 0.00 0.03 0.06 0.06
Delay/Veh: 10.7 10.7 0.0 0.0 11.6 11.6 0.0 0.0 0.0 10.1 10.2 10.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 10.7 10.7 0.0 0.0 11.6 11.6 0.0 0.0 0.0 10.1 10.2 10.2
DesignQueue: 0 3 0 0 5 2 0 0 0 1 2 1



Uptown Project Traffic Impact Analysis  
Year 2010 No Project - AM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #35 Brush St./ 17th St.  
\*\*\*\*\*

Cycle (sec):	40	Critical Vol./Cap. (X):	0.664
Loss Time (sec):	8 (Y+R = 6 sec)	Average Delay (sec/veh):	8.3
Optimal Cycle:	37	Level Of Service:	A

\*\*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	0 15 0	0 10 0	0 0 0 0
Lanes:	0 0 0 0 0	1 1 2 0 0	0 0 1 1 0	0 0 0 0 0

\*\*\*\*\*

Volume Module:												
Base Vol:	0	0	0	1005	813	0	0	181	81	0	0	0
Growth Adj:	1.00	1.00	1.00	1.11	1.11	1.11	1.30	1.30	1.30	1.00	1.00	1.00
Initial Bse:	0	0	0	1116	902	0	0	235	105	0	0	0
Added Vol:	0	0	0	0	5	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	1116	907	0	0	235	105	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	0	1240	1008	0	0	261	117	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	1240	1008	0	0	261	117	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	1240	1008	0	0	261	117	0	0	0

\*\*\*\*\*

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.77	0.77	1.00	1.00	0.91	0.91	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	2.00	0.00	0.00	1.38	0.62	0.00	0.00	0.00
Final Sat.:	0	0	0	2939	2939	0	0	2379	1065	0	0	0

\*\*\*\*\*

Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.42	0.34	0.00	0.00	0.11	0.11	0.00	0.00	0.00
Crit Moves:				****				****				
Green/Cycle:	0.00	0.00	0.00	0.55	0.55	0.00	0.00	0.25	0.25	0.00	0.00	0.00
Volume/Cap:	0.00	0.00	0.00	0.77	0.62	0.00	0.00	0.44	0.44	0.00	0.00	0.00
Delay/Veh:	0.0	0.0	0.0	8.3	6.5	0.0	0.0	13.0	13.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	8.3	6.5	0.0	0.0	13.0	13.0	0.0	0.0	0.0
DesignQueue:	0	0	0	14	11	0	0	4	2	0	0	0

\*\*\*\*\*

Uptown Project Traffic Impact Analysis  
Year 2010 No Project - AM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #36 17th St / Castro St / I-980 Off-Ramp  
\*\*\*\*\*

Cycle (sec):	70	Critical Vol./Cap. (X):	0.467
Loss Time (sec):	12 (Y+R = 6 sec)	Average Delay (sec/veh):	24.9
Optimal Cycle:	62	Level Of Service:	C

\*\*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Split Phase	Split Phase
Rights:	Include	Include	Include	Include
Min. Green:	0 10 0	0 0 0	0 20 0	0 20 0
Lanes:	0 0 1 1 0	0 0 0 0 0	1 0 3 0 0	0 0 2 1 0

\*\*\*\*\*

Volume Module:												
Base Vol:	0	617	70	0	0	0	182	374	0	0	302	37
Growth Adj:	1.01	1.01	1.01	1.00	1.00	1.00	1.13	1.13	1.13	1.07	1.07	1.07
Initial Bse:	0	623	71	0	0	0	206	423	0	0	323	40
Added Vol:	0	0	1	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	623	72	0	0	0	206	423	0	0	323	40
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	692	80	0	0	0	229	470	0	0	359	44
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	692	80	0	0	0	229	470	0	0	359	44
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	692	80	0	0	0	229	470	0	0	359	44

\*\*\*\*\*

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.94	0.94	1.00	1.00	1.00	0.95	0.91	1.00	1.00	0.90	0.90
Lanes:	0.00	1.79	0.21	0.00	0.00	0.00	1.00	3.00	0.00	0.00	2.67	0.33
Final Sat.:	0	3189	367	0	0	0	1805	5187	0	0	4547	557

\*\*\*\*\*

Capacity Analysis Module:												
Vol/Sat:	0.00	0.22	0.22	0.00	0.00	0.00	0.13	0.09	0.00	0.00	0.08	0.08
Crit Moves:		****					****				****	
Green/Cycle:	0.00	0.26	0.26	0.00	0.00	0.00	0.29	0.29	0.00	0.00	0.29	0.29
Volume/Cap:	0.00	0.84	0.84	0.00	0.00	0.00	0.44	0.32	0.00	0.00	0.28	0.28
Delay/Veh:	0.0	31.9	31.9	0.0	0.0	0.0	21.1	19.8	0.0	0.0	19.5	19.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	31.9	31.9	0.0	0.0	0.0	21.1	19.8	0.0	0.0	19.5	19.5
DesignQueue:	0	21	2	0	0	0	7	13	0	0	10	1

\*\*\*\*\*

Uptown Project Traffic Impact Analysis  
Year 2010 No Project - AM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #37 MLK Jr. Way/ 17th St  
\*\*\*\*\*

Cycle (sec): 60 Critical Vol./Cap. (X): 0.347  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 12.1  
Optimal Cycle: 58 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	25	0	0	25	0	0	25	0	0	0	0
Lanes:	0	0	1	1	0	0	0	1	2	1	0	0

Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol:	0	58	17	10	137	0	3	1223	100	0	0	0
Growth Adj:	1.39	1.39	1.39	1.42	1.42	1.42	1.11	1.11	1.11	1.00	1.00	1.00
Initial Bse:	0	81	24	14	195	0	3	1358	111	0	0	0
Added Vol:	0	0	0	0	0	0	0	2	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	81	24	14	195	0	3	1360	111	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	1.00	1.00	1.00	0.95	0.95	0.95
PHF Volume:	0	90	26	16	216	0	3	1360	111	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	90	26	16	216	0	3	1360	111	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	90	26	16	216	0	3	1360	111	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.92	0.92	0.82	0.82	1.00	0.86	0.86	0.86	1.00	1.00	1.00
Lanes:	0.00	1.55	0.45	0.14	1.86	0.00	0.01	3.69	0.30	0.00	0.00	0.00
Final Sat.:	0	2697	790	212	2904	0	15	6006	490	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.03	0.03	0.07	0.07	0.00	0.23	0.23	0.23	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.42	0.42	0.42	0.42	0.00	0.45	0.45	0.45	0.00	0.00	0.00
Volume/Cap:	0.00	0.08	0.08	0.18	0.18	0.00	0.50	0.50	0.50	0.00	0.00	0.00
Delay/Veh:	0.0	10.7	10.7	11.3	11.3	0.0	12.4	12.4	12.4	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	10.7	10.7	11.3	11.3	0.0	12.4	12.4	12.4	0.0	0.0	0.0
DesignQueue:	0	2	1	0	4	0	0	26	2	0	0	0

Uptown Project Traffic Impact Analysis  
Year 2010 No Project - AM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #38 Jefferson St./ 17th St.  
\*\*\*\*\*

Cycle (sec): 60 Critical Vol./Cap. (X): 0.294  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 11.5  
Optimal Cycle: 59 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	25	0	0	25	0	0	26	0	0	0	0
Lanes:	0	0	1	1	0	0	0	1	2	1	0	0

Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol:	0	55	39	10	47	0	23	1119	102	0	0	0
Growth Adj:	1.21	1.21	1.21	1.72	1.72	1.72	1.12	1.12	1.12	1.00	1.00	1.00
Initial Bse:	0	67	47	17	81	0	26	1253	114	0	0	0
Added Vol:	0	0	0	0	0	0	0	2	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	67	47	17	81	0	26	1255	114	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90
PHF Volume:	0	74	52	19	90	0	26	1255	114	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	74	52	19	90	0	26	1255	114	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	74	52	19	90	0	26	1255	114	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.82	0.82	0.79	0.79	1.00	0.85	0.85	0.85	1.00	1.00	1.00
Lanes:	0.00	1.17	0.83	0.35	1.65	0.00	0.07	3.60	0.33	0.00	0.00	0.00
Final Sat.:	0	1833	1300	527	2478	0	120	5846	532	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.04	0.04	0.04	0.04	0.00	0.21	0.21	0.21	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.42	0.42	0.42	0.42	0.00	0.45	0.45	0.45	0.00	0.00	0.00
Volume/Cap:	0.00	0.10	0.10	0.09	0.09	0.00	0.48	0.48	0.48	0.00	0.00	0.00
Delay/Veh:	0.0	10.7	10.7	10.6	10.6	0.0	11.7	11.7	11.7	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	10.7	10.7	10.6	10.6	0.0	11.7	11.7	11.7	0.0	0.0	0.0
DesignQueue:	0	1	1	0	2	0	0	24	2	0	0	0

Uptown Project Traffic Impact Analysis
Year 2010 No Project - AM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #39 Franklin St./ 17th St.
Cycle (sec): 45 Critical Vol./Cap. (X): 0.482
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 29.4
Optimal Cycle: 45 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 23 0 0 0 0 0 14 0 0 0 0 0
Lanes: 0 0 3 1 0 0 0 0 0 0 0 0 0 0
Volume Module: >> Count Date: 8 Jul 2003 <<
Base Vol: 0 344 63 0 0 0 269 431 0 0 0 0 0
Growth Adj: 1.27 1.27 1.27 1.00 1.00 1.00 1.25 1.25 1.25 1.00 1.00 1.00
Initial Bse: 0 437 80 0 0 0 336 539 0 0 0 0 0
Added Vol: 0 1 0 0 0 0 0 3 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 438 80 0 0 0 336 542 0 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.92 1.00 1.00 1.00 1.00 1.00 1.00 0.98 0.98 0.98
PHF Volume: 0 478 87 0 0 0 336 542 0 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 478 87 0 0 0 336 542 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 478 87 0 0 0 336 542 0 0 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.86 0.86 1.00 1.00 1.00 0.75 0.75 1.00 1.00 1.00 1.00
Lanes: 0.00 3.38 0.62 0.00 0.00 0.00 0.77 1.23 0.00 0.00 0.00 0.00
Final Sat.: 0 5499 1005 0 0 0 1087 1751 0 0 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.09 0.09 0.00 0.00 0.00 0.31 0.31 0.00 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.51 0.51 0.00 0.00 0.00 0.31 0.31 0.00 0.00 0.00 0.00
Volume/Cap: 0.00 0.17 0.17 0.00 0.00 0.00 0.99 0.99 0.00 0.00 0.00 0.00
Delay/Veh: 0.0 6.0 6.0 0.0 0.0 0.0 44.4 44.4 0.0 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 6.0 6.0 0.0 0.0 0.0 44.4 44.4 0.0 0.0 0.0 0.0
DesignQueue: 0 6 1 0 0 0 6 10 0 0 0 0 0

Uptown Project Traffic Impact Analysis
Year 2010 No Project - AM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #40 Webster St./ 17th St.
Cycle (sec): 45 Critical Vol./Cap. (X): 0.374
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 11.2
Optimal Cycle: 47 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 22 0 0 17 0 0 0 0 0
Lanes: 0 0 0 0 0 0 1 3 0 0 0 0 1 1 0 0 0 0 0 0
Volume Module: >> Count Date: 8 Jul 2003 <<
Base Vol: 0 0 0 57 419 0 0 288 183 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.06 1.06 1.06 1.30 1.30 1.30 1.00 1.00 1.00
Initial Bse: 0 0 0 60 444 0 0 374 238 0 0 0 0
Added Vol: 0 0 0 0 0 0 0 2 1 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 60 444 0 0 376 239 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 0.90 0.90 0.90 0.93 0.93 0.93 1.00 1.00 1.00
PHF Volume: 0 0 0 67 493 0 0 406 258 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 67 493 0 0 406 258 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 67 493 0 0 406 258 0 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.74 0.74 1.00 1.00 0.83 0.83 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 0.48 3.52 0.00 0.00 1.22 0.78 0.00 0.00 0.00
Final Sat.: 0 0 0 678 4981 0 0 1924 1221 0 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.10 0.10 0.00 0.00 0.21 0.21 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.00 0.00 0.47 0.47 0.00 0.00 0.36 0.36 0.00 0.00 0.00
Volume/Cap: 0.00 0.00 0.00 0.21 0.21 0.00 0.00 0.58 0.58 0.00 0.00 0.00
Delay/Veh: 0.0 0.0 0.0 7.6 7.6 0.0 0.0 14.3 14.3 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 7.6 7.6 0.0 0.0 14.3 14.3 0.0 0.0 0.0
DesignQueue: 0 0 0 1 7 0 0 7 5 0 0 0 0

Uptown Project Traffic Impact Analysis
2010 No Project - PM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #1 San Pablo Ave./ 31st St.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.460
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 10.7
Optimal Cycle: 82 Level of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Protected Protected
Rights: Include Include Include Include
Min. Green: 0 52 0 0 52 0 0 0 0 22 0 22
Lanes: 0 1 1 0 0 1 0 2 0 0 0 0 0 0 2 0 0 0 1
Volume Module: >> Count Date: 9 Jul 2003 <<
Base Vol: 0 800 0 43 622 0 0 0 0 184 0 21
Growth Adj: 1.36 1.36 1.36 1.34 1.34 1.34 1.00 1.00 1.00 1.32 1.32 1.32
Initial Bse: 0 1088 0 58 833 0 0 0 0 243 0 28
Added Vol: 0 1 0 0 2 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 1089 0 58 835 0 0 0 0 243 0 28
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume: 0 1116 0 59 856 0 0 0 0 249 0 28
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1116 0 59 856 0 0 0 0 249 0 28
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 1116 0 59 856 0 0 0 0 249 0 28
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.85 1.00 0.20 0.85 1.00 1.00 1.00 1.00 0.92 1.00 0.68
Lanes: 0.00 2.00 0.00 1.00 2.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
Final Sat.: 0 3249 0 388 3249 0 0 0 0 3502 0 1292
Capacity Analysis Module:
Vol/Sat: 0.00 0.34 0.00 0.15 0.26 0.00 0.00 0.00 0.00 0.07 0.00 0.02
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.63 0.00 0.63 0.63 0.00 0.00 0.00 0.00 0.27 0.00 0.27
Volume/Cap: 0.00 0.54 0.00 0.24 0.42 0.00 0.00 0.00 0.00 0.27 0.00 0.08
Delay/Veh: 0.0 9.4 0.0 8.8 8.1 0.0 0.0 0.0 0.0 24.3 0.0 22.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 9.4 0.0 8.8 8.1 0.0 0.0 0.0 0.0 24.3 0.0 22.9
DesignQueue: 0 20 0 1 15 0 0 0 0 8 0 1

Uptown Project Traffic Impact Analysis
2010 No Project - PM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #2 San Pablo Ave./ Market St.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.454
Loss Time (sec): 8 (Y+R = 10 sec) Average Delay (sec/veh): 11.0
Optimal Cycle: 78 Level of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 50 0 0 50 0 0 20 0 0 0 0 20
Lanes: 0 0 1 1 0 0 0 1 1 0 0 1 0 1 0 0 0 0 0 1
Volume Module: >> Count Date: 9 Jul 2003 <<
Base Vol: 0 749 0 0 729 167 111 144 15 0 0 0
Growth Adj: 1.07 1.07 1.07 1.00 1.00 1.00 1.34 1.34 1.34 1.39 1.39 1.39
Initial Bse: 0 801 0 0 729 167 149 193 20 0 0 0
Added Vol: 0 2 0 0 2 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 803 0 0 731 167 149 193 20 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 849 0 0 773 177 157 204 21 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 849 0 0 773 177 157 204 21 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 849 0 0 773 177 157 204 21 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.88 0.95 1.00 0.85 0.85 0.86 0.86 0.86 1.00 1.00 1.00
Lanes: 0.00 2.00 0.00 0.00 1.63 0.37 0.82 1.07 0.11 0.00 0.00 1.00
Final Sat.: 0 3339 0 0 2642 604 1351 1753 183 0 0 1900
Capacity Analysis Module:
Vol/Sat: 0.00 0.25 0.00 0.00 0.29 0.29 0.12 0.12 0.12 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.64 0.00 0.00 0.64 0.64 0.26 0.26 0.26 0.00 0.00 0.00
Volume/Cap: 0.00 0.40 0.00 0.00 0.45 0.45 0.45 0.45 0.45 0.00 0.00 0.00
Delay/Veh: 0.0 7.4 0.0 0.0 7.9 7.9 26.8 26.8 26.8 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 7.4 0.0 0.0 7.9 7.9 26.8 26.8 26.8 0.0 0.0 0.0
DesignQueue: 0 14 0 0 13 3 5 7 1 0 0 0

Uptown Project Traffic Impact Analysis  
2010 No Project - PM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #3 San Pablo Ave. / 27th

Cycle (sec): 90 Critical Vol./Cap. (X): 1.029  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 26.0  
Optimal Cycle: 120 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	60	0	0	60	0	0	22	0	0	22	0
Lanes:	0	1	0	1	0	1	0	0	1	0	1	0

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	8	960	60	174	638	7	21	40	19	53	87	90
Growth Adj:	1.19	1.19	1.19	1.25	1.25	1.25	1.20	1.20	1.20	1.19	1.19	1.19
Initial Bse:	10	1142	71	217	798	9	25	48	23	63	104	107
Added Vol:	0	2	0	0	2	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	1144	71	217	800	9	25	48	23	63	104	107
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	11	1272	79	242	888	10	28	53	25	70	115	119
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	1272	79	242	888	10	28	53	25	70	115	119
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	11	1272	79	242	888	10	28	53	25	70	115	119

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	0.89	0.89	0.89	0.15	0.95	0.95	0.78	0.78	0.78	0.74	1.00	0.85
Lanes:	0.01	1.87	0.12	1.00	1.98	0.02	0.26	0.50	0.24	1.00	1.00	1.00
Final Sat.:	26	3157	197	279	3564	39	390	742	353	1404	1900	1615

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	****			****			****			****		
Green/Cycle:	0.67	0.67	0.67	0.67	0.67	0.67	0.24	0.24	0.24	0.24	0.24	0.24
Volume/Cap:	0.60	0.60	0.60	1.30	0.37	0.37	0.29	0.29	0.29	0.20	0.25	0.30
Delay/Veh:	9.6	9.6	9.6	182.7	7.1	7.1	29.7	29.7	29.7	28.4	28.6	29.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.6	9.6	9.6	182.7	7.1	7.1	29.7	29.7	29.7	28.4	28.6	29.7
DesignQueue:	0	23	1	4	16	0	1	2	1	3	4	5

Uptown Project Traffic Impact Analysis  
2010 No Project - PM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #4 San Pablo Ave./ West St./25th St

Cycle (sec): 90 Critical Vol./Cap. (X): 0.451  
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 15.7  
Optimal Cycle: 73 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	32	0	0	32	0	12	0	12	17	0	17
Lanes:	0	1	0	0	1	0	0	0	1	1	0	0

Volume Module: >> Count Date: 9 Jul 2003 <<

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	901	63	12	554	0	5	0	8	25	0	65
Growth Adj:	1.12	1.12	1.12	1.01	1.01	1.01	1.24	1.24	1.24	1.42	1.42	1.42
Initial Bse:	0	1009	71	12	560	0	6	0	10	36	0	92
Added Vol:	0	2	1	0	3	0	0	0	0	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1011	72	12	563	0	6	0	10	37	0	92
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	1069	76	13	595	0	7	0	10	39	0	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1069	76	13	595	0	7	0	10	39	0	98
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	1069	76	13	595	0	7	0	10	39	0	98

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	0.95	0.85	0.85	0.79	0.79	0.95	0.64	1.00	0.64	0.95	1.00	0.68
Lanes:	0.00	1.87	0.13	0.04	1.96	0.00	0.38	0.00	0.62	1.00	0.00	1.00
Final Sat.:	0	3004	213	63	2923	0	469	0	750	1805	0	1292

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.54	0.54	0.54	0.54	0.00	0.13	0.00	0.13	0.19	0.00	0.19
Volume/Cap:	0.00	0.65	0.65	0.37	0.37	0.00	0.10	0.00	0.10	0.11	0.00	0.40
Delay/Veh:	0.0	15.4	15.4	11.9	11.9	0.0	34.6	0.0	34.6	30.4	0.0	33.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	15.4	15.4	11.9	11.9	0.0	34.6	0.0	34.6	30.4	0.0	33.1
DesignQueue:	0	26	2	0	14	0	0	0	0	2	0	4

Uptown Project Traffic Impact Analysis
2010 No Project - PM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #5 San Pablo Ave./ Grand Ave

Cycle (sec): 80 Critical Vol./Cap. (X): 0.615
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 19.9
Optimal Cycle: 81 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 40 0 0 40 0 0 33 0 0 33 0
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 0 1

Volume Module:
Base Vol: 112 489 14 122 373 7 31 663 33 31 677 101
Growth Adj: 1.39 1.39 1.39 1.20 1.20 1.20 1.34 1.34 1.34 1.27 1.27 1.27
Initial Bse: 156 680 19 146 448 8 42 888 44 39 860 128
Added Vol: 3 2 1 0 4 0 0 0 4 2 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 159 682 20 146 452 8 42 888 48 41 860 128
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 167 718 22 154 475 9 44 935 51 44 905 135
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 167 718 22 154 475 9 44 935 51 44 905 135
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 167 718 22 154 475 9 44 935 51 44 905 135

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.44 0.88 0.88 0.30 0.88 0.88 0.17 0.95 0.72 0.75 0.75 0.72
Lanes: 1.00 1.94 0.06 1.00 1.96 0.04 1.00 2.00 1.00 0.09 1.91 1.00
Final Sat.: 836 3229 97 566 3268 61 325 3610 1373 131 2728 1373

Capacity Analysis Module:
Vol/Sat: 0.20 0.22 0.22 0.27 0.15 0.15 0.13 0.26 0.04 0.33 0.33 0.10
Crit Moves: \*\*\*\*
Green/Cycle: 0.49 0.49 0.49 0.49 0.49 0.49 0.41 0.41 0.41 0.41 0.41 0.41
Volume/Cap: 0.40 0.45 0.45 0.55 0.29 0.29 0.33 0.64 0.09 0.81 0.81 0.24
Delay/Veh: 15.9 14.2 14.2 21.9 12.6 12.6 23.0 21.3 15.1 27.6 27.6 16.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 15.9 14.2 14.2 21.9 12.6 12.6 23.0 21.3 15.1 27.6 27.6 16.8
DesignQueue: 4 17 1 4 11 0 1 27 1 1 26 4

Uptown Project Traffic Impact Analysis
2010 No Project - PM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #6 San Pablo Ave./ 20th St.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.581
Loss Time (sec): 12 (Y+R = 25 sec) Average Delay (sec/veh): 26.5
Optimal Cycle: 62 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Ignore Include Include
Min. Green: 0 20 0 0 20 0 0 30 0 0 30 0
Lanes: 1 0 0 1 0 1 0 2 0 1 0 1 0 1 0 1

Volume Module:
Base Vol: 40 376 87 95 328 195 194 46 20 15 32 77
Growth Adj: 1.30 1.30 1.30 1.05 1.05 1.05 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 52 489 113 100 344 205 194 46 20 15 32 77
Added Vol: 0 0 6 10 0 0 0 0 0 4 0 6
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 52 489 119 110 344 205 194 46 20 19 32 83
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.94 0.94 0.00 0.91 0.91 0.91 0.92 0.92 0.92
PHF Volume: 58 543 132 117 366 0 213 51 22 21 35 90
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 58 543 132 117 366 0 213 51 22 21 35 90
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 58 543 132 117 366 0 213 51 22 21 35 90

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.54 0.83 0.83 0.17 0.95 1.00 0.60 0.60 0.60 0.67 0.67 0.67
Lanes: 1.00 0.80 0.20 1.00 2.00 1.00 1.00 0.70 0.30 0.37 0.63 1.00
Final Sat.: 1028 1261 307 323 3610 1900 1145 798 347 473 796 1269

Capacity Analysis Module:
Vol/Sat: 0.06 0.43 0.43 0.36 0.10 0.00 0.19 0.06 0.06 0.04 0.04 0.07
Crit Moves: \*\*\*\*
Green/Cycle: 0.48 0.48 0.48 0.48 0.48 0.00 0.38 0.38 0.38 0.38 0.38 0.38
Volume/Cap: 0.12 0.91 0.91 0.76 0.21 0.00 0.50 0.17 0.17 0.12 0.12 0.19
Delay/Veh: 12.2 36.2 36.2 46.6 12.6 0.0 22.2 16.9 16.9 16.5 16.5 17.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 12.2 36.2 36.2 46.6 12.6 0.0 22.2 16.9 16.9 16.5 16.5 17.4
DesignQueue: 1 14 3 3 9 0 6 1 1 1 1 3



Uptown Project Traffic Impact Analysis  
2010 No Project - PM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Unsignalized Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #9 San Pablo / 18th  
\*\*\*\*\*

Average Delay (sec/veh): 2.2 Worst Case Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	1	0	0	0

Volume Module:

Base Vol:	0	165	34	22	345	0	4	2	4	8	0	20
Growth Adj:	2.44	2.44	2.44	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	403	83	22	345	0	4	2	4	8	0	20
Added Vol:	0	6	0	0	1	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	409	83	22	346	0	4	2	4	8	0	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	454	92	24	384	0	4	2	4	9	0	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	454	92	24	384	0	4	2	4	9	0	22

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxx	546	xxxx	xxxxx	891	927	88	681	xxxx	500
Potent Cap.:	xxxx	xxxx	xxxxx	1033	xxxx	xxxxx	257	261	943	355	xxxx	575
Move Cap.:	xxxx	xxxx	xxxxx	1033	xxxx	xxxxx	242	255	943	344	xxxx	575

Level of Service Module:

Stopped Del:	xxxxx	xxxx	xxxxx	8.6	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	350	xxxxx	xxxx	482	xxxxx	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	8.6	xxxx	xxxxx	15.6	xxxxx	xxxxx	13.0	xxxxx	xxxxx
Shared LOS:	*	*	*	A	*	*	C	*	*	B	*	*
ApproachDel:	xxxxxx			xxxxxxx			15.6			13.0		
ApproachLOS:	*			*			C			B		

Uptown Project Traffic Impact Analysis  
2010 No Project - PM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #10 San Pablo / 17th / Clay  
\*\*\*\*\*

Cycle (sec): 70 Critical Vol./Cap. (X): 0.476  
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 19.3  
Optimal Cycle: 62 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	25	0	0	25	0	0	25	0	0	0	0
Lanes:	0	0	1	0	1	0	1	0	2	0	1	0

Volume Module:

Base Vol:	0	65	71	137	30	164	37	463	74	0	111	43
Growth Adj:	1.72	1.72	1.72	1.09	1.09	1.09	1.07	1.07	1.07	1.18	1.18	1.18
Initial Bse:	0	112	122	149	33	179	40	495	79	0	131	51
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
TLBS:	0	0	0	9	0	1	5	0	0	0	1	0
Initial Fut:	0	112	122	158	33	180	45	495	79	0	132	51
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	124	136	176	36	200	50	550	88	0	147	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	124	136	176	36	200	50	550	88	0	147	56
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	124	136	176	36	200	50	550	88	0	147	56

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.83	0.83	0.70	0.87	0.87	0.95	0.95	0.85	1.00	1.00	0.85
Lanes:	0.00	0.48	0.52	1.00	0.31	1.69	1.00	2.00	1.00	0.00	1.00	1.00
Final Sat.:	0	754	823	1330	511	2807	1805	3610	1615	0	1900	1615

Capacity Analysis Module:

Vol/Sat:	0.00	0.16	0.16	0.13	0.07	0.07	0.03	0.15	0.05	0.00	0.08	0.03
Crit Moves:	****											
Green/Cycle:	0.00	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.00	0.11	0.11
Volume/Cap:	0.00	0.46	0.46	0.37	0.20	0.20	0.08	0.43	0.15	0.00	0.68	0.31
Delay/Veh:	0.0	17.9	17.9	17.2	15.7	15.7	14.9	17.3	15.4	0.0	37.9	29.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	17.9	17.9	17.2	15.7	15.7	14.9	17.3	15.4	0.0	37.9	29.4
DesignQueue:	0	3	4	5	1	5	1	14	2	0	5	2



Uptown Project Traffic Impact Analysis  
 2010 No Project - PM Peak Hour  
 (With TLBS)

Level Of Service Computation Report  
 1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #11 Telegraph Ave./ W. Grand Ave.  
 \*\*\*\*\*

Cycle (sec): 80 Critical Vol./Cap. (X): 1.063  
 Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 27.0  
 Optimal Cycle: 120 Level Of Service: C

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	20	0	0	20	0	0	30	0	0	30	0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:

Base Vol:	299	474	110	99	320	107	139	563	110	76	673	90
Growth Adj:	1.08	1.08	1.08	1.04	1.04	1.04	1.24	1.24	1.24	1.19	1.19	1.19
Initial Bse:	323	512	119	103	333	111	172	698	136	90	801	107
Added Vol:	1	1	4	0	1	0	0	0	2	6	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	324	513	123	103	334	111	172	698	138	96	801	107
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	341	540	129	108	351	117	181	735	146	102	843	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	341	540	129	108	351	117	181	735	146	102	843	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	341	540	129	108	351	117	181	735	146	102	843	113

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.54	0.85	0.85	0.21	0.85	0.85	0.19	0.86	0.86	0.21	0.86	0.86
Lanes:	1.00	1.61	0.39	1.00	1.50	0.50	1.00	1.67	0.33	1.00	1.76	0.24
Final Sat.:	1027	2616	626	403	2412	804	355	2717	539	407	2892	387

Capacity Analysis Module:

Vol/Sat:	0.33	0.21	0.21	0.27	0.15	0.15	0.51	0.27	0.27	0.25	0.29	0.29
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.43	0.43	0.43	0.25	0.25	0.25	0.47	0.47	0.47	0.47	0.47	0.47
Volume/Cap:	0.78	0.48	0.48	1.08	0.58	0.58	1.08	0.57	0.57	0.53	0.62	0.62
Delay/Veh:	25.7	16.8	16.8	141.8	27.4	27.4	113.2	15.7	15.7	17.5	16.4	16.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	25.7	16.8	16.8	141.8	27.4	27.4	113.2	15.7	15.7	17.5	16.4	16.4
DesignQueue:	13	14	3	4	12	4	4	18	4	2	21	3

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Uptown Project Traffic Impact Analysis  
 2010 No Project - PM Peak Hour  
 (With TLBS)

Level Of Service Computation Report  
 1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #12 Telegraph Ave./ 20th St.  
 \*\*\*\*\*

Cycle (sec): 45 Critical Vol./Cap. (X): 0.553  
 Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 18.4  
 Optimal Cycle: 47 Level Of Service: B

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	17	0	0	17	0	0	22	0	0	22	0
Lanes:	1	0	0	1	0	1	0	1	0	1	0	1

Volume Module:

Base Vol:	18	354	43	90	393	25	90	203	37	31	107	115
Growth Adj:	1.15	1.15	1.15	1.31	1.31	1.31	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	21	407	49	118	515	33	90	203	37	31	107	115
Added Vol:	5	0	0	0	0	9	0	1	4	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	26	407	49	118	515	42	90	204	41	31	109	115
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.93	0.93	0.93	0.91	0.91	0.91	0.90	0.90	0.90
PHF Volume:	29	452	55	127	554	45	99	224	45	34	121	128
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	452	55	127	554	45	99	224	45	34	121	128
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	29	452	55	127	554	45	99	224	45	34	121	128

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.39	0.84	0.84	0.24	0.87	0.87	0.69	0.69	0.69	0.73	0.73	0.73
Lanes:	1.00	0.89	0.11	1.00	1.85	0.15	0.54	1.22	0.24	0.24	0.85	0.91
Final Sat.:	732	1417	172	447	3055	248	707	1601	322	335	1179	1244

Capacity Analysis Module:

Vol/Sat:	0.04	0.32	0.32	0.28	0.18	0.18	0.14	0.14	0.14	0.10	0.10	0.10
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	
Green/Cycle:	0.36	0.36	0.36	0.36	0.36	0.36	0.47	0.47	0.47	0.47	0.47	0.47
Volume/Cap:	0.11	0.88	0.88	0.78	0.50	0.50	0.30	0.30	0.30	0.22	0.22	0.22
Delay/Veh:	10.8	31.7	31.7	44.2	13.2	13.2	8.4	8.4	8.4	7.8	7.8	7.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.8	31.7	31.7	44.2	13.2	13.2	8.4	8.4	8.4	7.8	7.8	7.8
DesignQueue:	0	8	1	2	10	1	1	3	1	0	2	2

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Uptown Project Traffic Impact Analysis
2010 No Project - PM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #13 Telegraph / William St
Cycle (sec): 45 Critical Vol./Cap. (X): 0.456
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 6.2
Optimal Cycle: 28 Level Of Service: A
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 10 0 10 0 0 0 0
Lanes: 1 0 1 0 0 0 0 0 1 0 0 0 0 0 0 0
Volume Module:
Base Vol: 14 440 0 0 400 28 1 0 1 0 0 0
Growth Adj: 1.15 1.15 1.15 1.32 1.32 1.32 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 16 506 0 0 528 37 1 0 1 0 0 0
Added Vol: 0 5 0 0 4 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 16 511 0 0 532 37 1 0 1 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 18 568 0 0 591 41 1 0 1 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 18 568 0 0 591 41 1 0 1 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 18 568 0 0 591 41 1 0 1 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.76 1.00 1.00 1.00 0.89 0.89 0.65 1.00 0.65 1.00 1.00 1.00
Lanes: 1.00 1.00 0.00 0.00 0.94 0.06 0.50 0.00 0.50 0.00 0.00 0.00
Final Sat.: 1450 1900 0 0 1583 110 622 0 622 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.01 0.30 0.00 0.00 0.37 0.37 0.00 0.00 0.00 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.60 0.60 0.00 0.00 0.60 0.60 0.22 0.00 0.22 0.00 0.00 0.00
Volume/Cap: 0.02 0.50 0.00 0.00 0.62 0.62 0.01 0.00 0.01 0.00 0.00 0.00
Delay/Veh: 3.7 5.5 0.0 0.0 7.0 7.0 13.6 0.0 13.6 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 3.7 5.5 0.0 0.0 7.0 7.0 13.6 0.0 13.6 0.0 0.0 0.0
DesignQueue: 0 6 0 0 6 0 0 0 0 0 0 0

Uptown Project Traffic Impact Analysis
2010 No Project - PM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #14 Telegraph Ave./ 19th St.
Cycle (sec): 45 Critical Vol./Cap. (X): 0.847
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 43.5
Optimal Cycle: 58 Level Of Service: D
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 17 0 0 17 0 0 0 0 0 0 22 0
Lanes: 1 0 1 0 0 0 0 0 1 0 0 0 1 0 0
Volume Module:
Base Vol: 57 355 0 0 377 46 0 0 0 28 552 122
Growth Adj: 1.06 1.06 1.06 1.32 1.32 1.32 1.00 1.00 1.00 1.18 1.18 1.18
Initial Bse: 60 376 0 0 498 61 0 0 0 33 651 144
Added Vol: 0 2 0 0 4 0 0 0 0 0 0 3
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 60 378 0 0 502 61 0 0 0 33 651 147
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.97 0.97 0.97 0.93 0.93 0.93 1.00 1.00 1.00 0.94 0.94 0.94
PHF Volume: 62 390 0 0 539 65 0 0 0 35 693 156
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 62 390 0 0 539 65 0 0 0 35 693 156
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 62 390 0 0 539 65 0 0 0 35 693 156
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.79 0.85 1.00 1.00 0.75 0.75 1.00 1.00 1.00 0.83 0.83 0.83
Lanes: 1.00 1.00 0.00 0.00 0.89 0.11 0.00 0.00 0.00 0.08 1.57 0.35
Final Sat.: 1509 1615 0 0 1275 154 0 0 0 126 2477 559
Capacity Analysis Module:
Vol/Sat: 0.04 0.24 0.00 0.00 0.42 0.42 0.00 0.00 0.00 0.28 0.28 0.28
Crit Moves: \*\*\*\*
Green/Cycle: 0.36 0.36 0.00 0.00 0.36 0.36 0.00 0.00 0.00 0.47 0.47 0.47
Volume/Cap: 0.11 0.67 0.00 0.00 1.17 1.17 0.00 0.00 0.00 0.60 0.60 0.60
Delay/Veh: 10.4 18.6 0.0 0.0 111 110.5 0.0 0.0 0.0 11.0 11.0 11.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 10.4 18.6 0.0 0.0 111 110.5 0.0 0.0 0.0 11.0 11.0 11.0
DesignQueue: 1 7 0 0 10 1 0 0 0 1 10 2

Uptown Project Traffic Impact Analysis  
2010 No Project - PM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #15 Telegraph / 18th St

Cycle (sec): 45 Critical Vol./Cap. (X): 0.584  
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 7.6  
Optimal Cycle: 33 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Rights:	0 0 0			0 0 0			7 0 7			0 0 0		
Min. Green:	0	0	0	0	0	0	7	0	7	0	0	0
Lanes:	1	0	1	0	0	1	0	0	1	0	0	0

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	42	350	0	0	380	34	44	0	36	0	0	0
Growth Adj:	1.18	1.18	1.18	1.39	1.39	1.39	1.16	1.16	1.16	1.16	1.16	1.16
Initial Bse:	50	413	0	0	528	47	51	0	42	0	0	0
Added Vol:	0	2	0	0	4	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	50	415	0	0	532	47	51	0	42	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	55	461	0	0	591	53	57	0	46	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	461	0	0	591	53	57	0	46	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	55	461	0	0	591	53	57	0	46	0	0	0

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	0.63	1.00	1.00	1.00	0.89	0.89	0.55	1.00	0.55	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.92	0.08	0.55	0.00	0.45	0.00	0.00	0.00
Final Sat.:	1203	1900	0	0	1551	138	575	0	471	0	0	0

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	0.05 0.24 0.00			0.00 0.38 0.38			0.10 0.00 0.10			0.00 0.00 0.00		
Green/Cycle:	0.65	0.65	0.00	0.00	0.65	0.65	0.17	0.00	0.17	0.00	0.00	0.00
Volume/Cap:	0.07	0.37	0.00	0.00	0.58	0.58	0.58	0.00	0.58	0.00	0.00	0.00
Delay/Veh:	3.0	4.4	0.0	0.0	6.6	6.6	30.6	0.0	30.6	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	3.0	4.4	0.0	0.0	6.6	6.6	30.6	0.0	30.6	0.0	0.0	0.0
DesignQueue:	0	4	0	0	6	1	1	0	1	0	0	0

Uptown Project Traffic Impact Analysis  
2010 No Project - PM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #16 Telegraph Ave. / 17th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.500  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 10.4  
Optimal Cycle: 29 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Rights:	0 0 0			0 0 0			0 0 0			0 0 0		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	1	1	0	1	0	1	1	0	0	0

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	363	4	92	265	0	60	451	66	0	0	0
Growth Adj:	1.18	1.18	1.18	1.39	1.39	1.39	1.16	1.16	1.16	1.00	1.00	1.00
Initial Bse:	0	428	5	128	368	0	70	523	77	0	0	0
Added Vol:	0	2	0	2	2	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	430	5	130	370	0	70	523	77	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	478	5	144	412	0	77	581	85	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	478	5	144	412	0	77	581	85	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	478	5	144	412	0	77	581	85	0	0	0

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	1.00	0.88	0.88	0.48	0.85	1.00	0.84	0.84	0.84	1.00	1.00	1.00
Lanes:	0.00	1.98	0.02	1.00	1.00	0.00	0.31	2.35	0.34	0.00	0.00	0.00
Final Sat.:	0	3296	36	920	1615	0	495	3722	545	0	0	0

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	0.00 0.15 0.15			0.16 0.25 0.00			0.16 0.16 0.16			0.00 0.00 0.00		
Green/Cycle:	0.00	0.51	0.51	0.51	0.51	0.00	0.31	0.31	0.31	0.00	0.00	0.00
Volume/Cap:	0.00	0.28	0.28	0.31	0.50	0.00	0.50	0.50	0.50	0.00	0.00	0.00
Delay/Veh:	0.0	6.7	6.7	8.1	9.4	0.0	13.8	13.8	13.8	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	6.7	6.7	8.1	9.4	0.0	13.8	13.8	13.8	0.0	0.0	0.0
DesignQueue:	0	6	0	2	5	0	1	10	2	0	0	0

Uptown Project Traffic Impact Analysis
2010 No Project - PM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #17 Broadway/ W. Grand Ave.

Cycle (sec): 85 Critical Vol./Cap. (X): 1.174
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 49.8
Optimal Cycle: 120 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns representing different traffic movements and 12 rows of volume-related metrics.

Saturation Flow Module table with 12 columns and 5 rows of saturation flow data.

Capacity Analysis Module table with 12 columns and 12 rows of capacity and delay metrics.

Uptown Project Traffic Impact Analysis
2010 No Project - PM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #18 Broadway/ 20th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.477
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 12.6
Optimal Cycle: 56 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns representing different traffic movements and 12 rows of volume-related metrics.

Saturation Flow Module table with 12 columns and 5 rows of saturation flow data.

Capacity Analysis Module table with 12 columns and 12 rows of capacity and delay metrics.

Uptown Project Traffic Impact Analysis
2010 No Project - PM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #19 Broadway/ 19th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.607
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 14.5
Optimal Cycle: 60 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns and 14 rows including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns and 5 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis
2010 No Project - PM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #20 Broadway/ 17th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.585
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 13.9
Optimal Cycle: 60 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns and 14 rows including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns and 5 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
2010 No Project - PM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #21 Broadway/ 15th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.470  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 8.9  
Optimal Cycle: 33 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Rights:	Include			Include			Include			Include		
Min. Green:	0	25	0	0	25	0	0	0	0	0	0	0
Lanes:	0	0	2	0	0	2	0	0	0	0	0	2

Volume Module:

Base Vol:	0	556	0	0	720	0	0	0	0	0	0	250
Growth Adj:	1.04	1.04	1.04	1.01	1.01	1.01	1.00	1.00	1.00	1.08	1.08	1.08
Initial Bse:	0	578	0	0	727	0	0	0	0	0	0	270
Added Vol:	0	2	0	0	2	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	580	0	0	729	0	0	0	0	0	0	270
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	645	0	0	810	0	0	0	0	0	0	300
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	645	0	0	810	0	0	0	0	0	0	300
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	645	0	0	810	0	0	0	0	0	0	300

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.77	1.00	1.00	0.77	1.00	1.00	1.00	1.00	1.00	1.00	0.61
Lanes:	0.00	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
Final Sat.:	0	2924	0	0	2924	0	0	0	0	0	0	2302

Capacity Analysis Module:

Vol/Sat:	0.00	0.22	0.00	0.00	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.13
Crit Moves:	****											
Green/Cycle:	0.00	0.59	0.00	0.00	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.28
Volume/Cap:	0.00	0.37	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.47
Delay/Veh:	0.0	6.6	0.0	0.0	7.2	0.0	0.0	0.0	0.0	0.0	0.0	18.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	6.6	0.0	0.0	7.2	0.0	0.0	0.0	0.0	0.0	0.0	18.6
DesignQueue:	0	9	0	0	12	0	0	0	0	0	0	7

Uptown Project Traffic Impact Analysis  
2010 No Project - PM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #22 Broadway/ 14th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.598  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 14.1  
Optimal Cycle: 60 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Rights:	Include			Include			Include			Include		
Min. Green:	0	26	0	0	26	0	0	26	0	0	26	0
Lanes:	0	0	1	0	0	1	0	0	1	0	0	1

Volume Module:

Base Vol:	0	433	29	0	921	87	0	273	152	0	397	106
Growth Adj:	1.05	1.05	1.05	1.04	1.04	1.04	1.01	1.01	1.01	1.25	1.25	1.25
Initial Bse:	0	455	30	0	958	90	0	276	154	0	496	133
Added Vol:	0	1	0	0	2	0	0	0	0	0	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	456	30	0	960	90	0	276	154	0	496	134
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	506	34	0	1066	101	0	306	171	0	551	148
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	506	34	0	1066	101	0	306	171	0	551	148
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	506	34	0	1066	101	0	306	171	0	551	148

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.76	0.76	1.00	0.75	0.75	1.00	0.73	0.73	1.00	0.74	0.74
Lanes:	0.00	1.87	0.13	0.00	2.74	0.26	0.00	1.28	0.72	0.00	1.58	0.42
Final Sat.:	0	2716	182	0	3930	370	0	1777	989	0	2230	600

Capacity Analysis Module:

Vol/Sat:	0.00	0.19	0.19	0.00	0.27	0.27	0.00	0.17	0.17	0.00	0.25	0.25
Crit Moves:	****											
Green/Cycle:	0.00	0.43	0.43	0.00	0.43	0.43	0.00	0.43	0.43	0.00	0.43	0.43
Volume/Cap:	0.00	0.43	0.43	0.00	0.63	0.63	0.00	0.40	0.40	0.00	0.57	0.57
Delay/Veh:	0.0	12.9	12.9	0.0	14.8	14.8	0.0	12.6	12.6	0.0	14.7	14.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	12.9	12.9	0.0	14.8	14.8	0.0	12.6	12.6	0.0	14.7	14.7
DesignQueue:	0	10	1	0	21	2	0	6	3	0	11	3

Uptown Project Traffic Impact Analysis  
2010 No Project - PM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #23 Frontage Rd./ W. Grand Ave.  
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Cycle (sec):	120	Critical Vol./Cap. (X):	1.151
Loss Time (sec):	16 (Y+R = 4 sec)	Average Delay (sec/veh):	103.4
Optimal Cycle:	120	Level Of Service:	F

\*\*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Split Phase	Split Phase	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0	0 0 0	7 0 0	7 0 0
Lanes:	1 0 1 1 0	0 1 0 0 1	1 0 1 1 0	1 0 1 1 0

\*\*\*\*\*

Volume Module:

Base Vol:	28	157	172	84	62	5	381	309	61	95	914	298
Growth Adj:	1.00	1.00	1.00	1.13	1.13	1.13	1.41	1.41	1.41	1.18	1.18	1.18
Initial Bse:	28	157	172	95	70	6	537	436	86	112	1079	352
Added Vol:	0	0	0	0	0	0	0	4	0	0	3	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	28	157	172	95	70	6	537	440	86	112	1082	352
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	29	165	181	100	74	6	565	463	91	118	1138	370
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	165	181	100	74	6	565	463	91	118	1138	370
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	29	165	181	100	74	6	565	463	91	118	1138	370

\*\*\*\*\*

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.83	0.83	0.93	0.93	0.81	0.90	0.88	0.88	0.90	0.87	0.87
Lanes:	1.00	1.00	1.00	0.58	0.42	1.00	1.00	1.67	0.33	1.00	1.51	0.49
Final Sat.:	1718	1584	1584	1012	747	1537	1718	2803	548	1718	2498	812

\*\*\*\*\*

Capacity Analysis Module:

Vol/Sat:	0.02	0.10	0.11	0.10	0.10	0.00	0.33	0.17	0.17	0.07	0.46	0.46
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.10	0.10	0.10	0.09	0.09	0.09	0.29	0.48	0.48	0.20	0.40	0.40
Volume/Cap:	0.17	1.05	1.15	1.15	1.15	0.05	1.15	0.34	0.34	0.34	1.15	1.15
Delay/Veh:	50.0	118	153.4	174.7	175	50.5	132.3	19.5	19.5	41.8	114	113.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	50.0	118	153.4	174.7	175	50.5	132.3	19.5	19.5	41.8	114	113.6
DesignQueue:	2	10	11	6	5	0	29	17	3	6	51	17

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Uptown Project Traffic Impact Analysis  
2010 No Project - PM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #24 Mandela Pkwy/ W. Grand Ave.  
\*\*\*\*\*

Cycle (sec):	120	Critical Vol./Cap. (X):	0.486
Loss Time (sec):	8 (Y+R = 8 sec)	Average Delay (sec/veh):	23.3
Optimal Cycle:	118	Level Of Service:	C

\*\*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0 30 0	0 30 0	0 80 0	0 80 0
Lanes:	0 1 0 1 0	0 1 0 1 0	1 0 1 1 0	1 0 1 1 0

\*\*\*\*\*

Volume Module:

Base Vol:	107	144	127	35	132	105	127	332	57	220	604	25
Growth Adj:	1.09	1.09	1.09	1.40	1.40	1.40	1.65	1.65	1.65	1.13	1.13	1.13
Initial Bse:	117	157	138	49	185	147	210	548	94	249	683	28
Added Vol:	0	0	0	0	0	0	0	4	0	0	3	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	117	157	138	49	185	147	210	552	94	249	686	28
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	130	174	154	54	205	163	233	613	104	276	762	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	130	174	154	54	205	163	233	613	104	276	762	31
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	130	174	154	54	205	163	233	613	104	276	762	31

\*\*\*\*\*

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.54	0.54	0.54	0.63	0.63	0.63	0.30	0.88	0.88	0.32	0.90	0.90
Lanes:	0.57	0.76	0.67	0.26	0.97	0.77	1.00	1.71	0.29	1.00	1.92	0.08
Final Sat.:	586	789	695	310	1169	930	563	2872	489	617	3281	135

\*\*\*\*\*

Capacity Analysis Module:

Vol/Sat:	0.22	0.22	0.22	0.18	0.18	0.18	0.41	0.21	0.21	0.45	0.23	0.23
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.27	0.27	0.27	0.27	0.27	0.27	0.67	0.67	0.67	0.67	0.67	0.67
Volume/Cap:	0.83	0.83	0.83	0.66	0.66	0.66	0.62	0.32	0.32	0.67	0.35	0.35
Delay/Veh:	54.9	54.9	54.9	44.4	44.4	44.4	18.9	8.9	8.9	20.5	9.1	9.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	54.9	54.9	54.9	44.4	44.4	44.4	18.9	8.9	8.9	20.5	9.1	9.1
DesignQueue:	7	9	8	3	10	8	5	14	2	6	18	1

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Uptown Project Traffic Impact Analysis  
2010 No Project - PM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #25 Northgate Ave./ W. Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.819  
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 45.3  
Optimal Cycle: 75 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	18	0	18	13	30	0	0	30	0
Lanes:	0	0	0	2	0	0	1	1	0	0	1	1

Volume Module:

Base Vol:	0	0	0	140	0	70	338	737	0	0	647	406
Growth Adj:	1.00	1.00	1.00	1.05	1.05	1.05	1.21	1.21	1.21	1.17	1.17	1.17
Initial Bse:	0	0	0	147	0	74	409	892	0	0	757	475
Added Vol:	0	0	0	2	0	2	1	0	0	0	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	149	0	76	410	892	0	0	757	476
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	157	0	79	432	939	0	0	797	501
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	157	0	79	432	939	0	0	797	501
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	157	0	79	432	939	0	0	797	501

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.92	1.00	0.72	0.95	0.88	1.00	1.00	0.83	0.83
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	1.23	0.77
Final Sat.:	0	0	0	3502	0	1373	1805	3339	0	0	1931	1214

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.04	0.00	0.06	0.24	0.28	0.00	0.00	0.41	0.41
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.00	0.00	0.23	0.00	0.23	0.23	0.63	0.00	0.00	0.40	0.40
Volume/Cap:	0.00	0.00	0.00	0.20	0.00	0.26	1.04	0.45	0.00	0.00	1.04	1.04
Delay/Veh:	0.0	0.0	0.0	25.7	0.0	27.5	86.6	8.5	0.0	0.0	61.6	61.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	25.7	0.0	27.5	86.6	8.5	0.0	0.0	61.6	61.6
DesignQueue:	0	0	0	5	0	3	16	17	0	0	24	15

Uptown Project Traffic Impact Analysis  
2010 No Project - PM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #26 Webster St./Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.735  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 23.9  
Optimal Cycle: 75 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	23	0	0	31	0	13	31	0
Lanes:	0	0	0	0	1	0	0	1	0	1	0	1

Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol:	0	0	0	80	284	76	14	577	169	95	312	22
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.30	1.30	1.30	1.32	1.32	1.32
Initial Bse:	0	0	0	80	284	76	18	750	220	125	412	29
Added Vol:	0	0	0	0	0	0	0	3	0	0	5	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	80	284	76	18	753	220	125	417	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	0	0	85	303	81	19	803	234	134	444	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	85	303	81	19	803	234	134	444	31
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	85	303	81	19	803	234	134	444	31

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.85	0.85	0.72	0.80	0.80	0.80	0.95	0.87	0.87
Lanes:	0.00	0.00	0.00	0.22	0.78	1.00	0.04	1.52	0.44	1.00	1.87	0.13
Final Sat.:	0	0	0	355	1260	1373	56	2309	674	1805	3091	215

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.24	0.24	0.06	0.35	0.35	0.35	0.07	0.14	0.14
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.00	0.00	0.30	0.30	0.30	0.44	0.44	0.44	0.16	0.60	0.60
Volume/Cap:	0.00	0.00	0.00	0.80	0.80	0.20	0.80	0.80	0.80	0.46	0.24	0.24
Delay/Veh:	0.0	0.0	0.0	38.4	38.4	21.8	24.6	24.6	24.6	35.3	7.8	7.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	38.4	38.4	21.8	24.6	24.6	24.6	35.3	7.8	7.8
DesignQueue:	0	0	0	3	10	3	1	22	6	5	8	1



Uptown Project Traffic Impact Analysis  
2010 No Project - PM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #27 Harrison St./ Grand Ave.  
\*\*\*\*\*

Cycle (sec): 80 Critical Vol./Cap. (X): 1.057  
Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 48.3  
Optimal Cycle: 120 Level Of Service: D

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	2	0	1	1	0	2	0	1	1	0

\*\*\*\*\*

Volume Module:

Base Vol:	8	1618	738	0	614	73	164	522	172	311	512	105
Growth Adj:	1.09	1.09	1.09	1.19	1.19	1.19	1.32	1.32	1.32	1.13	1.13	1.13
Initial Bse:	9	1764	804	0	731	87	216	689	227	351	579	119
Added Vol:	0	0	0	0	0	1	1	3	0	0	4	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	9	1764	804	0	731	88	217	692	227	351	583	119
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	9	1856	847	0	769	92	229	728	239	370	613	125
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	1856	847	0	769	92	229	728	239	370	613	125
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	9	1856	847	0	769	92	229	728	239	370	613	125

\*\*\*\*\*

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.29	0.95	0.85	0.91	0.90	0.90	0.92	0.91	0.91	0.92	0.93	0.93
Lanes:	1.00	2.00	1.00	0.00	2.68	0.32	2.00	1.51	0.49	2.00	1.66	0.34
Final Sat.:	551	3610	1615	0	4556	548	3502	2618	859	3502	2924	596

\*\*\*\*\*

Capacity Analysis Module:

Vol/Sat:	0.02	0.51	0.52	0.00	0.17	0.17	0.07	0.28	0.28	0.11	0.21	0.21
Crit Moves:	****											
Green/Cycle:	0.49	0.49	0.59	0.00	0.49	0.49	0.09	0.26	0.26	0.10	0.28	0.28
Volume/Cap:	0.03	1.06	0.89	0.00	0.35	0.35	0.76	1.06	1.06	1.06	0.76	0.76
Delay/Veh:	10.8	58.8	25.2	0.0	12.8	12.8	46.2	75.3	75.3	99.8	29.9	29.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.8	58.8	25.2	0.0	12.8	12.8	46.2	75.3	75.3	99.8	29.9	29.9
DesignQueue:	0	49	18	0	18	2	9	26	8	15	21	4

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Uptown Project Traffic Impact Analysis  
2010 No Project - PM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #28 El Embarcadero / Grand Ave.  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap. (X): 0.932  
Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 29.2  
Optimal Cycle: 120 Level Of Service: C

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	20	0	0	0	0	0	0	30	0	10	30	0
Lanes:	1	0	0	0	0	0	0	0	2	0	1	0

\*\*\*\*\*

Volume Module: >> Count Date: 9 Jul 2003 <<

Base Vol:	232	0	223	0	0	0	0	1039	743	301	603	0
Growth Adj:	1.13	1.13	1.13	1.00	1.00	1.00	1.07	1.07	1.07	1.04	1.04	1.04
Initial Bse:	262	0	252	0	0	0	0	1112	795	313	627	0
Added Vol:	3	0	0	0	0	0	0	3	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	265	0	252	0	0	0	0	1115	795	313	629	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	276	0	262	0	0	0	0	1159	826	325	654	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	276	0	262	0	0	0	0	1159	826	325	654	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	276	0	262	0	0	0	0	1159	826	325	654	0

\*\*\*\*\*

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	1.00	1.00	1.00	1.00	0.95	0.68	0.95	0.85	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	1805	0	1615	0	0	0	0	3610	1292	1805	3249	0

\*\*\*\*\*

Capacity Analysis Module:

Vol/Sat:	0.15	0.00	0.16	0.00	0.00	0.00	0.00	0.32	0.64	0.18	0.20	0.00
Crit Moves:	****											
Green/Cycle:	0.20	0.00	0.20	0.00	0.00	0.00	0.00	0.48	0.68	0.20	0.68	0.00
Volume/Cap:	0.76	0.00	0.81	0.00	0.00	0.00	0.00	0.67	0.94	0.91	0.30	0.00
Delay/Veh:	47.1	0.0	52.5	0.0	0.0	0.0	0.0	20.7	31.1	65.9	6.5	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	47.1	0.0	52.5	0.0	0.0	0.0	0.0	20.7	31.1	65.9	6.5	0.0
DesignQueue:	13	0	12	0	0	0	0	36	16	15	12	0

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Uptown Project Traffic Impact Analysis
2010 No Project - PM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #29 MacArthur Blvd./ Grand Ave.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.868
Loss Time (sec): 12 (Y+R = 8 sec) Average Delay (sec/veh): 29.8
Optimal Cycle: 87 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 25 0 0 20 0 15 20 0
Lanes: 0 0 0 0 0 1 1 1 0 0 0 2 0 1 1 0 3 0 0
Volume Module: >> Count Date: 9 Nov 2000 <<
Base Vol: 0 0 0 278 650 225 0 657 497 239 710 0
Growth Adj: 1.00 1.00 1.00 1.01 1.01 1.01 1.05 1.05 1.05 1.04 1.04 1.04
Initial Bse: 0 0 0 281 657 227 0 690 522 249 738 0
Added Vol: 0 0 0 0 0 0 0 0 0 3 0 2 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 281 657 227 0 690 525 249 740 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 0 0 296 691 239 0 726 552 262 779 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 296 691 239 0 726 552 262 779 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 296 691 239 0 726 552 262 779 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.86 0.86 0.86 1.00 0.95 0.85 0.95 0.91 1.00
Lanes: 0.00 0.00 0.00 0.72 1.69 0.59 0.00 2.00 1.00 1.00 3.00 0.00
Final Sat.: 0 0 0 1179 2757 954 0 3610 1615 1805 5187 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.25 0.25 0.25 0.00 0.20 0.34 0.14 0.15 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.00 0.00 0.31 0.31 0.31 0.00 0.35 0.35 0.19 0.54 0.00
Volume/Cap: 0.00 0.00 0.00 0.80 0.80 0.80 0.00 0.57 0.98 0.77 0.28 0.00
Delay/Veh: 0.0 0.0 0.0 29.8 29.8 29.8 0.0 23.1 58.4 46.6 10.3 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 29.8 29.8 29.8 0.0 23.1 58.4 46.6 10.3 0.0
DesignQueue: 0 0 0 10 22 8 0 22 17 10 17 0

Uptown Project Traffic Impact Analysis
2010 No Project - PM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #30 MacArthur Blvd./ Lake Shore Ave.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.713
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 24.3
Optimal Cycle: 76 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Prot+Permit
Rights: Include Include Include Include
Min. Green: 0 0 0 0 22 0 0 30 0 12 30 0
Lanes: 0 0 0 0 0 1 1 2 0 1 0 0 2 0 1 1 0 2 0 0
Volume Module: >> Count Date: 9 Jul 2003 <<
Base Vol: 0 0 0 220 1021 104 0 485 385 320 512 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.11 1.11 1.11 1.00 1.00 1.00
Initial Bse: 0 0 0 220 1021 104 0 538 427 320 512 0
Added Vol: 0 0 0 0 3 0 0 0 0 0 3 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 220 1024 104 0 538 427 320 515 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 0 0 0 239 1110 113 0 584 463 347 558 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 239 1110 113 0 584 463 347 558 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 239 1110 113 0 584 463 347 558 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.77 0.77 0.85 1.00 0.95 0.85 0.51 0.95 1.00
Lanes: 0.00 0.00 0.00 1.00 3.00 1.00 0.00 2.00 1.00 1.00 2.00 0.00
Final Sat.: 0 0 0 1470 4409 1615 0 3610 1615 976 3610 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.16 0.25 0.07 0.00 0.16 0.29 0.36 0.15 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.00 0.00 0.28 0.28 0.28 0.00 0.38 0.38 0.58 0.58 0.00
Volume/Cap: 0.00 0.00 0.00 0.59 0.92 0.25 0.00 0.43 0.77 0.62 0.27 0.00
Delay/Veh: 0.0 0.0 0.0 25.5 37.3 22.9 0.0 18.9 27.7 12.2 8.6 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 25.5 37.3 22.9 0.0 18.9 27.7 12.2 8.6 0.0
DesignQueue: 0 0 0 8 38 4 0 17 14 13 11 0

Uptown Project Traffic Impact Analysis
2010 No Project - PM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #31 Lake Park Ave./ Lake Shore Ave.
Cycle (sec): 90 Critical Vol./Cap. (X): 0.774
Loss Time (sec): 16 (Y+R = 12 sec) Average Delay (sec/veh): 37.4
Optimal Cycle: 82 Level of Service: D
Approach: North Bound South Bound East Bound West Bound
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 20 20 20 8 13 25 0 0 25 0
Lanes: 1 0 1 0 1 1 0 2 0 0 0 0 1 1 0
Volume Module: >> Count Date: 17 Jul 2003 <<
Base Vol: 360 456 227 75 0 81 269 459 0 0 336 212
Growth Adj: 1.03 1.03 1.03 1.21 1.21 1.21 1.04 1.04 1.04 1.01 1.01 1.01
Initial Bse: 371 470 234 91 0 98 280 477 0 0 339 214
Added Vol: 3 2 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 374 472 234 91 0 98 280 477 0 0 339 214
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
PHF Volume: 386 487 242 94 0 101 289 493 0 0 351 221
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 386 487 242 94 0 101 289 493 0 0 351 221
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 386 487 242 94 0 101 289 493 0 0 351 221
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 1.00 0.85 0.95 1.00 0.85 0.95 0.95 1.00 1.00 0.89 0.89
Lanes: 1.00 1.00 1.00 1.00 0.00 1.00 1.00 2.00 0.00 0.00 1.23 0.77
Final Sat.: 1805 1900 1615 1805 0 1615 1805 3610 0 0 2085 1316
Capacity Analysis Module:
Vol/Sat: 0.21 0.26 0.15 0.05 0.00 0.06 0.16 0.14 0.00 0.00 0.17 0.17
Crit Moves: \*\*\*\*
Green/Cycle: 0.28 0.28 0.28 0.09 0.00 0.09 0.18 0.45 0.00 0.00 0.28 0.28
Volume/Cap: 0.76 0.91 0.53 0.58 0.00 0.71 0.91 0.30 0.00 0.00 0.61 0.61
Delay/Veh: 36.4 51.7 28.6 44.8 0.0 54.6 66.2 15.7 0.0 0.0 29.3 29.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 36.4 51.7 28.6 44.8 0.0 54.6 66.2 15.7 0.0 0.0 29.3 29.3
DesignQueue: 15 19 9 4 0 5 12 14 0 0 13 8

Uptown Project Traffic Impact Analysis
2010 No Project - PM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #32 Brush St./ 18th St.
Cycle (sec): 70 Critical Vol./Cap. (X): 0.331
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 9.7
Optimal Cycle: 61 Level of Service: A
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 45 0 0 0 0 0 8 0
Lanes: 0 0 0 0 0 0 0 3 1 0 0 0 0 0 1 0 2 0 0
Volume Module:
Base Vol: 0 0 0 0 1000 84 0 0 0 150 196 0
Growth Adj: 1.00 1.00 1.00 1.03 1.03 1.03 1.00 1.00 1.00 1.06 1.06 1.06
Initial Bse: 0 0 0 0 1030 87 0 0 0 159 208 0
Added Vol: 0 0 0 0 0 0 0 0 0 3 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 0 1030 87 0 0 0 162 208 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 0 0 0 1144 96 0 0 0 180 231 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 0 1144 96 0 0 0 180 231 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 0 1144 96 0 0 0 180 231 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 1.00 0.90 0.90 1.00 1.00 1.00 0.85 0.95 1.00
Lanes: 0.00 0.00 0.00 0.00 3.69 0.31 0.00 0.00 0.00 1.00 2.00 0.00
Final Sat.: 0 0 0 0 6304 529 0 0 0 1615 3610 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.00 0.18 0.18 0.00 0.00 0.00 0.11 0.06 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.00 0.00 0.00 0.64 0.64 0.00 0.00 0.00 0.24 0.24 0.00
Volume/Cap: 0.00 0.00 0.00 0.00 0.28 0.28 0.00 0.00 0.00 0.46 0.26 0.00
Delay/Veh: 0.0 0.0 0.0 0.0 5.5 5.5 0.0 0.0 0.0 23.4 21.6 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 0.0 5.5 5.5 0.0 0.0 0.0 23.4 21.6 0.0
DesignQueue: 0 0 0 0 17 1 0 0 0 5 7 0

Uptown Project Traffic Impact Analysis
2010 No Project - PM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #33 18th St./ Castro St.

Cycle (sec): 40 Critical Vol./Cap. (X): 0.885
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 47.6
Optimal Cycle: 60 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. Includes values for 18th St and Castro St.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. Includes values for 18th St and Castro St.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue. Includes values for 18th St and Castro St.

Uptown Project Traffic Impact Analysis
2010 No Project - PM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #34 MLK Jr. Way/ 18th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.455
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 13.8
Optimal Cycle: 62 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. Includes values for 18th St and MLK Jr. Way.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. Includes values for 18th St and MLK Jr. Way.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue. Includes values for 18th St and MLK Jr. Way.

Uptown Project Traffic Impact Analysis
2010 No Project - PM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #35 Brush St./ 17th St.
Cycle (sec): 60 Critical Vol./Cap. (X): 0.360
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 10.5
Optimal Cycle: 48 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 35 0 0 5 0 0 0 0 0
Lanes: 0 0 0 0 0 1 1 2 0 0 0 0 1 1 0 0 0 0 0 0
Volume Module:
Base Vol: 0 0 0 759 394 0 0 245 179 0 0 0
Growth Adj: 1.00 1.00 1.00 1.04 1.04 1.04 1.12 1.12 1.12 1.00 1.00 1.00
Initial Bse: 0 0 0 789 410 0 0 274 200 0 0 0
Added Vol: 0 0 0 0 3 0 0 1 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 789 413 0 0 275 200 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 0 0 877 459 0 0 306 223 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 877 459 0 0 306 223 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 877 459 0 0 306 223 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.77 0.77 1.00 1.00 0.89 0.89 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 2.00 2.00 0.00 0.00 1.16 0.84 0.00 0.00 0.00
Final Sat.: 0 0 0 2939 2939 0 0 1958 1425 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.30 0.16 0.00 0.00 0.16 0.16 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.00 0.00 0.58 0.58 0.00 0.00 0.28 0.28 0.00 0.00 0.00
Volume/Cap: 0.00 0.00 0.00 0.51 0.27 0.00 0.00 0.55 0.55 0.00 0.00 0.00
Delay/Veh: 0.0 0.0 0.0 7.6 6.2 0.0 0.0 19.0 19.0 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 7.6 6.2 0.0 0.0 19.0 19.0 0.0 0.0 0.0
DesignQueue: 0 0 0 13 7 0 0 8 6 0 0 0

Uptown Project Traffic Impact Analysis
2010 No Project - PM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #36 17th St / Castro St / I-980-Off-Ramp
Cycle (sec): 85 Critical Vol./Cap. (X): 0.746
Loss Time (sec): 12 (Y+R = 6 sec) Average Delay (sec/veh): 29.7
Optimal Cycle: 63 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 10 0 0 0 0 0 20 0 0 20 0
Lanes: 0 0 1 1 0 0 0 0 0 0 1 0 3 0 0 0 0 2 1 0
Volume Module:
Base Vol: 0 645 31 0 0 0 216 707 0 0 1371 68
Growth Adj: 1.14 1.14 1.14 1.00 1.00 1.00 1.00 1.00 1.00 1.03 1.03 1.03
Initial Bse: 0 735 35 0 0 0 216 707 0 0 1412 70
Added Vol: 0 0 4 0 0 0 0 1 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 735 39 0 0 0 216 708 0 0 1412 70
User Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 735 39 0 0 0 216 708 0 0 1412 70
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 735 39 0 0 0 216 708 0 0 1412 70
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 735 39 0 0 0 216 708 0 0 1412 70
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.94 0.94 1.00 1.00 1.00 0.95 0.91 1.00 1.00 0.90 0.90
Lanes: 0.00 1.90 0.10 0.00 0.00 0.00 1.00 3.00 0.00 0.00 2.86 0.14
Final Sat.: 0 3399 182 0 0 0 1805 5187 0 0 4907 243
Capacity Analysis Module:
Vol/Sat: 0.00 0.22 0.22 0.00 0.00 0.00 0.12 0.14 0.00 0.00 0.29 0.29
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.27 0.27 0.00 0.00 0.00 0.24 0.24 0.00 0.00 0.36 0.36
Volume/Cap: 0.00 0.81 0.81 0.00 0.00 0.00 0.51 0.58 0.00 0.00 0.81 0.81
Delay/Veh: 0.0 34.3 34.3 0.0 0.0 0.0 29.3 29.5 0.0 0.0 27.5 27.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 34.3 34.3 0.0 0.0 0.0 29.3 29.5 0.0 0.0 27.5 27.5
DesignQueue: 0 27 1 0 0 0 8 26 0 0 46 2

Uptown Project Traffic Impact Analysis
2010 No Project - PM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #37 MLK Jr. Way/ 17th St
Cycle (sec): 60 Critical Vol./Cap. (X): 0.229
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 10.9
Optimal Cycle: 58 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 25 0 0 25 0 0 25 0 0 0 0 0
Lanes: 0 0 1 1 0 0 1 1 0 0 0 1 2 1 0 0 0 0 0 0
Volume Module: >> Count Date: 8 Jul 2003 <<
Base Vol: 0 170 29 21 191 0 10 478 45 0 0 0 0
Growth Adj: 1.35 1.35 1.35 1.23 1.23 1.23 1.10 1.10 1.10 1.00 1.00 1.00
Initial Bse: 0 230 39 26 235 0 11 526 50 0 0 0 0
Added Vol: 0 0 0 0 0 0 0 5 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 230 39 26 235 0 11 531 50 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 255 44 29 261 0 12 590 55 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 255 44 29 261 0 12 590 55 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 255 43 29 261 0 12 590 55 0 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.93 0.93 0.79 0.79 1.00 0.85 0.85 0.85 1.00 1.00 1.00
Lanes: 0.00 1.71 0.29 0.20 1.80 0.00 0.07 3.60 0.33 0.00 0.00 0.00
Final Sat.: 0 3016 515 297 2699 0 121 5821 543 0 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.08 0.08 0.10 0.10 0.00 0.10 0.10 0.10 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.42 0.42 0.42 0.42 0.00 0.44 0.44 0.44 0.00 0.00 0.00
Volume/Cap: 0.00 0.20 0.20 0.23 0.23 0.00 0.23 0.23 0.23 0.00 0.00 0.00
Delay/Veh: 0.0 11.2 11.2 11.5 11.5 0.0 10.5 10.5 10.5 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 11.2 11.2 11.5 11.5 0.0 10.5 10.5 10.5 0.0 0.0 0.0
DesignQueue: 0 5 1 1 5 0 0 11 1 0 0 0 0

Uptown Project Traffic Impact Analysis
2010 No Project - PM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #38 Jefferson St./ 17th St.
Cycle (sec): 60 Critical Vol./Cap. (X): 0.223
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 10.6
Optimal Cycle: 59 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 25 0 0 25 0 0 26 0 0 0 0 0
Lanes: 0 0 1 1 0 0 1 1 0 0 0 1 2 1 0 0 0 0 0 0
Volume Module: >> Count Date: 8 Jul 2003 <<
Base Vol: 0 157 52 7 57 0 24 429 44 0 0 0 0
Growth Adj: 1.35 1.35 1.35 1.79 1.79 1.79 1.11 1.11 1.11 1.00 1.00 1.00
Initial Bse: 0 212 70 13 102 0 27 476 49 0 0 0 0
Added Vol: 0 0 0 0 0 0 0 5 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 212 70 13 102 0 27 481 49 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 236 78 14 113 0 30 535 54 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 236 78 14 113 0 30 535 54 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 236 78 14 113 0 30 535 54 0 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.85 0.85 0.79 0.79 1.00 0.85 0.85 0.85 1.00 1.00 1.00
Lanes: 0.00 1.50 0.50 0.22 1.78 0.00 0.19 3.46 0.35 0.00 0.00 0.00
Final Sat.: 0 2416 800 330 2689 0 310 5605 569 0 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.10 0.10 0.04 0.04 0.00 0.10 0.10 0.10 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.43 0.43 0.43 0.43 0.00 0.43 0.43 0.43 0.00 0.00 0.00
Volume/Cap: 0.00 0.22 0.22 0.10 0.10 0.00 0.22 0.22 0.22 0.00 0.00 0.00
Delay/Veh: 0.0 10.8 10.8 10.1 10.1 0.0 10.7 10.7 10.7 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 10.8 10.8 10.1 10.1 0.0 10.7 10.7 10.7 0.0 0.0 0.0
DesignQueue: 0 5 2 2 2 0 1 10 1 0 0 0 0

Uptown Project Traffic Impact Analysis
2010 No Project - PM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #39 Franklin St./ 17th St.
Cycle (sec): 45 Critical Vol./Cap. (X): 0.494
Loss Time (sec): 8 (Y+R = 7 sec) Average Delay (sec/veh): 24.5
Optimal Cycle: 45 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 23 0 0 0 0 0 14 0 0 0 0 0
Lanes: 0 0 3 1 0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0
Volume Module: >> Count Date: 8 Jul 2003 <<
Base Vol: 0 440 109 0 0 0 120 455 0 0 0 0
Growth Adj: 1.12 1.12 1.12 1.00 1.00 1.00 1.35 1.35 1.35 1.00 1.00 1.00
Initial Bse: 0 493 122 0 0 0 162 614 0 0 0 0
Added Vol: 0 1 0 0 0 0 0 2 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 494 122 0 0 0 162 616 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91
PHF Volume: 0 543 134 0 0 0 178 678 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 543 134 0 0 0 178 678 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 543 134 0 0 0 178 678 0 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.85 0.85 1.00 1.00 1.00 0.75 0.75 1.00 1.00 1.00 1.00
Lanes: 0.00 3.21 0.79 0.00 0.00 0.00 0.42 1.58 0.00 0.00 0.00 0.00
Final Sat.: 0 5177 1280 0 0 0 591 2248 0 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.10 0.10 0.00 0.00 0.00 0.30 0.30 0.00 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.51 0.51 0.00 0.00 0.00 0.31 0.31 0.00 0.00 0.00 0.00
Volume/Cap: 0.00 0.21 0.21 0.00 0.00 0.00 0.97 0.97 0.00 0.00 0.00 0.00
Delay/Veh: 0.0 6.1 6.1 0.0 0.0 0.0 39.0 39.0 0.0 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 6.1 6.1 0.0 0.0 0.0 39.0 39.0 0.0 0.0 0.0 0.0
DesignQueue: 0 7 2 0 0 0 3 12 0 0 0 0

Uptown Project Traffic Impact Analysis
2010 No Project - PM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #40 Webster St./ 17th St.
Cycle (sec): 45 Critical Vol./Cap. (X): 0.504
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 11.7
Optimal Cycle: 47 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 22 0 0 17 0 0 0 0 0
Lanes: 0 0 0 0 0 0 1 3 0 0 0 0 1 1 0 0 0 0 0 0
Volume Module: >> Count Date: 8 Jul 2003 <<
Base Vol: 0 0 0 94 700 0 0 354 219 0 0 0
Growth Adj: 1.00 1.00 1.00 1.11 1.11 1.11 1.21 1.21 1.21 1.00 1.00 1.00
Initial Bse: 0 0 0 104 777 0 0 428 265 0 0 0
Added Vol: 0 0 0 0 0 0 0 1 1 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 104 777 0 0 429 266 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 0 0 116 863 0 0 477 296 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 116 863 0 0 477 296 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 116 863 0 0 477 296 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.74 0.74 1.00 1.00 0.83 0.83 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 0.47 3.53 0.00 0.00 1.23 0.77 0.00 0.00 0.00
Final Sat.: 0 0 0 670 4988 0 0 1944 1205 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.17 0.17 0.00 0.00 0.25 0.25 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.00 0.00 0.47 0.47 0.00 0.00 0.36 0.36 0.00 0.00 0.00
Volume/Cap: 0.00 0.00 0.00 0.37 0.37 0.00 0.00 0.68 0.68 0.00 0.00 0.00
Delay/Veh: 0.0 0.0 0.0 8.4 8.4 0.0 0.0 15.9 15.9 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 8.4 8.4 0.0 0.0 15.9 15.9 0.0 0.0 0.0
DesignQueue: 0 0 0 2 12 0 0 8 5 0 0 0

LEVEL OF SERVICE CALCULATION WORKSHEETS  
YEAR 2010 PLUS PROJECT CONDITIONS



Uptown Project Traffic Impact Analysis  
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #1 San Pablo Ave./ 31st St.

Cycle (sec): 75 Critical Vol./Cap. (X): 0.367  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 9.8  
Optimal Cycle: 75 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	45	0	0	45	0	0	0	0	22	0	22
Lanes:	0	1	1	0	0	2	0	0	0	2	0	0

Volume Module: >> Count Date: 9 Jul 2003 <<

Base Vol:	0	416	0	15	451	0	0	0	0	137	0	7
Growth Adj:	1.10	1.10	1.10	1.78	1.78	1.78	1.00	1.00	1.00	1.16	1.16	1.16
Initial Bse:	0	458	0	27	803	0	0	0	0	159	0	8
Added Vol:	0	35	0	0	9	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	493	0	27	812	0	0	0	0	159	0	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	547	0	30	902	0	0	0	0	177	0	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	547	0	30	902	0	0	0	0	177	0	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	547	0	30	902	0	0	0	0	177	0	9

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.85	1.00	0.43	0.85	1.00	1.00	1.00	1.00	0.92	1.00	0.68
Lanes:	0.00	2.00	0.00	1.00	2.00	0.00	0.00	0.00	0.00	2.00	0.00	1.00
Final Sat.:	0	3249	0	811	3249	0	0	0	0	3502	0	1292

Capacity Analysis Module:

Vol/Sat:	0.00	0.17	0.00	0.04	0.28	0.00	0.00	0.00	0.00	0.05	0.00	0.01
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.60	0.00	0.60	0.60	0.00	0.00	0.00	0.00	0.29	0.00	0.29
Volume/Cap:	0.00	0.28	0.00	0.06	0.46	0.00	0.00	0.00	0.00	0.17	0.00	0.02
Delay/Veh:	0.0	7.6	0.0	6.5	9.1	0.0	0.0	0.0	0.0	20.1	0.0	19.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	7.6	0.0	6.5	9.1	0.0	0.0	0.0	0.0	20.1	0.0	19.0
DesignQueue:	0	9	0	0	16	0	0	0	0	5	0	0

Uptown Project Traffic Impact Analysis  
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #2 San Pablo Ave./ Market St.

Cycle (sec): 75 Critical Vol./Cap. (X): 0.314  
Loss Time (sec): 8 (Y+R = 10 sec) Average Delay (sec/veh): 10.1  
Optimal Cycle: 73 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	43	0	0	43	0	0	22	0	0	0	0
Lanes:	0	0	1	0	0	1	0	1	0	0	0	0

Volume Module: >> Count Date: 9 Jul 2003 <<

Base Vol:	0	408	0	0	476	131	67	75	3	0	0	0
Growth Adj:	1.02	1.02	1.02	1.00	1.00	1.00	1.66	1.66	1.66	1.21	1.21	1.21
Initial Bse:	0	416	0	0	476	131	111	125	5	0	0	0
Added Vol:	0	53	0	0	13	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	469	0	0	489	131	111	125	5	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	498	0	0	519	139	118	132	5	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	498	0	0	519	139	118	132	5	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	498	0	0	519	139	118	132	5	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.88	0.95	1.00	0.85	0.85	0.87	0.87	0.87	1.00	1.00	1.00
Lanes:	0.00	2.00	0.00	0.00	1.58	0.42	0.92	1.04	0.04	0.00	0.00	0.00
Final Sat.:	0	3339	0	0	2549	683	1534	1717	69	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.15	0.00	0.00	0.20	0.20	0.08	0.08	0.08	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.60	0.00	0.00	0.60	0.60	0.29	0.29	0.29	0.00	0.00	0.00
Volume/Cap:	0.00	0.25	0.00	0.00	0.34	0.34	0.26	0.26	0.26	0.00	0.00	0.00
Delay/Veh:	0.0	7.3	0.0	0.0	8.0	8.0	20.9	20.9	20.9	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	7.3	0.0	0.0	8.0	8.0	20.9	20.9	20.9	0.0	0.0	0.0
DesignQueue:	0	9	0	0	9	2	4	4	4	0	0	0

Uptown Project Traffic Impact Analysis  
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #3 San Pablo Ave. / 27th

Cycle (sec): 75 Critical Vol./Cap. (X): 0.340  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 10.4  
Optimal Cycle: 75 Level Of Service: B

Table with columns: Approach (North, South, East, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights (Min. Green, Lanes), and values for each movement.

Volume Module: >> Count Date: 1 Jan 2003 << Table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol. and values for each movement.

Saturation Flow Module: Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. and values for each movement.

Capacity Analysis Module: Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue and values for each movement.

Uptown Project Traffic Impact Analysis  
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #4 San Pablo Ave./ West St.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.315  
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 20.7  
Optimal Cycle: 83 Level Of Service: C

Table with columns: Approach (North, South, East, West Bound), Movement (L, T, R), Control (Permitted, Include, Split Phase), Rights (Min. Green, Lanes), and values for each movement.

Volume Module: >> Count Date: 9 Jul 2003 << Table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol. and values for each movement.

Saturation Flow Module: Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. and values for each movement.

Capacity Analysis Module: Table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue and values for each movement.

Uptown Project Traffic Impact Analysis  
Year 2010 plus Project - AM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #5 San Pablo Ave./ Grand Ave

Cycle (sec): 80 Critical Vol./Cap. (X): 0.537  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 16.9  
Optimal Cycle: 80 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Min. Green:	0	35	0	0	35	0	0	37	0	0	37	0
Lanes:	1	0	1	1	0	1	1	0	2	0	1	1

Volume Module:

Base Vol:	56	306	29	91	377	10	6	442	35	8	747	44
Growth Adj:	1.03	1.03	1.03	1.37	1.37	1.37	1.08	1.08	1.08	1.30	1.30	1.30
Initial Bse:	58	315	30	125	516	14	6	477	38	10	971	57
Added Vol:	83	70	57	6	13	0	0	9	15	6	16	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	141	385	87	131	529	14	6	486	53	16	987	65
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	148	405	91	138	557	14	7	512	56	17	1039	69
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	148	405	91	138	557	14	7	512	56	17	1039	69
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	148	405	91	138	557	14	7	512	56	17	1039	69

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.37	0.85	0.85	0.42	0.88	0.88	0.16	0.95	0.72	0.89	0.89	0.72
Lanes:	1.00	1.63	0.37	1.00	1.95	0.05	1.00	2.00	1.00	0.03	1.97	1.00
Final Sat.:	705	2648	597	792	3242	84	304	3610	1373	56	3341	1373

Capacity Analysis Module:

Vol/Sat:	0.21	0.15	0.15	0.17	0.17	0.17	0.02	0.14	0.04	0.31	0.31	0.05
Crit Moves:	****											
Green/Cycle:	0.44	0.44	0.44	0.44	0.44	0.44	0.46	0.46	0.46	0.46	0.46	0.46
Volume/Cap:	0.48	0.35	0.35	0.40	0.39	0.39	0.05	0.31	0.09	0.67	0.67	0.11
Delay/Veh:	21.3	15.6	15.6	18.7	16.1	16.1	12.5	13.9	12.3	19.1	19.1	12.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	21.3	15.6	15.6	18.7	16.1	16.1	12.5	13.9	12.3	19.1	19.1	12.5
DesignQueue:	4	10	2	4	15	0	0	13	1	0	27	2

Uptown Project Traffic Impact Analysis  
Year 2010 plus Project - AM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #6 San Pablo Ave./ 20th St.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.470  
Loss Time (sec): 12 (Y+R = 16 sec) Average Delay (sec/veh): 21.9  
Optimal Cycle: 52 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Ignore			Permitted Include			Permitted Include		
Min. Green:	0	0	0	0	0	0	0	40	0	0	40	0
Lanes:	1	0	0	1	0	2	0	1	0	0	1	0

Volume Module:

Base Vol:	5	215	26	47	348	207	62	15	13	4	25	19
Growth Adj:	1.09	1.09	1.09	1.09	1.09	1.09	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	234	28	51	379	226	62	15	13	4	25	19
Added Vol:	0	136	27	16	8	0	0	0	0	49	0	75
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	5	370	55	67	387	226	62	15	13	53	25	94
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.84	0.84	0.84	0.93	0.93	0.00	0.87	0.87	0.87	0.71	0.71	0.71
PHF Volume:	6	441	66	72	416	0	71	17	15	75	35	132
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	441	66	72	416	0	71	17	15	75	35	132
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	6	441	66	72	416	0	71	17	15	75	35	132

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.51	0.83	0.83	0.27	0.95	1.00	0.58	0.58	0.58	0.66	0.66	0.66
Lanes:	1.00	0.87	0.13	1.00	2.00	1.00	1.00	0.54	0.46	0.68	0.32	1.00
Final Sat.:	963	1378	206	509	3610	1900	1109	594	515	852	402	1254

Capacity Analysis Module:

Vol/Sat:	0.01	0.32	0.32	0.14	0.12	0.00	0.06	0.03	0.03	0.09	0.09	0.11
Crit Moves:	****											
Green/Cycle:	0.42	0.42	0.42	0.42	0.42	0.00	0.44	0.44	0.44	0.44	0.44	0.44
Volume/Cap:	0.02	0.76	0.76	0.34	0.27	0.00	0.14	0.07	0.07	0.20	0.20	0.24
Delay/Veh:	15.2	29.9	29.9	21.7	17.4	0.0	15.3	14.4	14.4	15.6	15.6	16.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	15.2	29.9	29.9	21.7	17.4	0.0	15.3	14.4	14.4	15.6	15.6	16.1
DesignQueue:	0	14	2	2	12	0	2	0	0	2	1	4

Uptown Project Traffic Impact Analysis  
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Unsignalized Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #7 San Pablo / William St  
\*\*\*\*\*

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	2	0	0	0	0	0	1

Volume Module: >> Count Date: 30 Jul 2003 <<

Base Vol:	0	220	0	0	365	0	0	0	0	0	0	8
Growth Adj:	1.29	1.29	1.29	1.18	1.18	1.18	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	284	0	0	431	0	0	0	0	0	0	8
Added Vol:	0	59	7	0	58	0	0	0	0	0	0	104
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	343	7	0	489	0	0	0	0	0	0	112
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	381	8	0	543	0	0	0	0	0	0	124
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	381	8	0	543	0	0	0	0	0	0	124

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	385
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	667
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	667

Level Of Service Module:

Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	11.6
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	B
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx					11.6
ApproachLOS:	*			*			*					B

Uptown Project Traffic Impact Analysis  
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #8 San Pablo Ave./ 19th St.  
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Cycle (sec): 75 Critical Vol./Cap. (X): 0.361  
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 20.5  
Optimal Cycle: 74 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Permitted			Permitted			Split Phase			Split Phase			
Rights:	Include			Include			Include			Include			
Min. Green:	0	25	0	0	25	0	12	0	12	0	25	0	
Lanes:	1	0	1	0	0	2	0	1	0	0	1	0	1

Volume Module:

Base Vol:	17	123	0	0	227	75	82	0	3	40	106	60
Growth Adj:	1.29	1.29	1.29	1.18	1.18	1.18	1.00	1.00	1.00	1.14	1.14	1.14
Initial Bse:	22	159	0	0	268	89	82	0	3	46	121	68
Added Vol:	2	29	0	0	16	42	0	0	0	48	76	37
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	24	188	0	0	284	131	82	0	3	94	197	105
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	24	188	0	0	284	131	82	0	3	94	197	105
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	24	188	0	0	284	131	82	0	3	94	197	105
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	24	188	0	0	284	131	82	0	3	94	197	105

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.57	0.85	1.00	1.00	0.95	0.72	0.73	1.00	0.73	0.83	0.83	0.83
Lanes:	1.00	1.00	0.00	0.00	2.00	1.00	0.96	0.00	0.04	0.47	1.00	0.53
Final Sat.:	1089	1615	0	0	3610	1373	1330	0	49	749	1575	843

Capacity Analysis Module:

Vol/Sat:	0.02	0.12	0.00	0.00	0.08	0.10	0.06	0.00	0.06	0.12	0.12	0.12
Crit Moves:	****						****			****		
Green/Cycle:	0.33	0.33	0.00	0.00	0.33	0.33	0.17	0.00	0.17	0.34	0.34	0.34
Volume/Cap:	0.07	0.35	0.00	0.00	0.24	0.29	0.37	0.00	0.37	0.37	0.37	0.37
Delay/Veh:	17.4	20.6	0.0	0.0	18.6	20.0	32.2	0.0	32.2	19.7	19.7	19.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	17.4	20.6	0.0	0.0	18.6	20.0	32.2	0.0	32.2	19.7	19.7	19.7
DesignQueue:	1	5	0	0	8	4	3	0	3	6	3	3

Uptown Project Traffic Impact Analysis
Year 2010 plus Project - AM Peak Hour

Level of Service Computation Report
1997 HCM Unsignalized Method (Future Volume Alternative)
Intersection #9 San Pablo / 18th
Average Delay (sec/veh): 3.0 Worst Case Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 0 1 0 0 1 1 0 0 0 0 1 0 0 0 0 1 0 0
Volume Module:
Base Vol: 0 103 50 16 300 0 2 0 2 6 0 20
Growth Adj: 1.34 1.34 1.34 1.17 1.17 1.17 1.06 1.06 1.06 1.00 1.00 1.00
Initial Bse: 0 138 67 19 351 0 2 0 2 6 0 20
Added Vol: 0 20 4 8 56 0 0 0 0 4 0 11
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 158 71 27 407 0 2 0 2 10 0 31
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 176 79 30 452 0 2 0 2 11 0 34
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 176 79 30 452 0 2 0 2 11 0 34
Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx 4.1 xxxx xxxxx 7.1 xxxx 6.2 7.1 xxxx 6.2
FollowUpTim:xxxxx xxxxx xxxxxx 2.2 xxxx xxxxxx 3.5 xxxxx 3.3 3.5 xxxxx 3.3
Capacity Module:
Cnflct Vol: xxxxx xxxxx xxxxxx 254 xxxx xxxxx 698 xxxx 142 447 xxxxx 215
Potent Cap.: xxxxx xxxxx xxxxxx 1322 xxxx xxxxxx 347 xxxxx 883 509 xxxxx 830
Move Cap.: xxxxx xxxxx xxxxxx 1322 xxxx xxxxxx 327 xxxxx 883 499 xxxxx 830
Level Of Service Module:
Stopped Del:xxxxx xxxxx xxxxxx 7.8 xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
LOS by Move: \* \* \* A \*
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx 477 xxxxx xxxxx 714 xxxxxx
Shrd StpDel:xxxxxx xxxxx xxxxxx 7.8 xxxx xxxxxx xxxxxx 12.6 xxxxxx xxxxxx 10.4 xxxxxx
Shared LOS: \* \* \* A \* \* \* \* \* B \* \* \* \* \* B \* \* \*
ApproachDel: xxxxxxx xxxxxxx 12.6 10.4
ApproachLOS: \* \* B B

Uptown Project Traffic Impact Analysis
Year 2010 plus Project - AM Peak Hour

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #10 San Pablo /17th/Clay
Cycle (sec): 80 Critical Vol./Cap. (X): 0.372
Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 20.7
Optimal Cycle: 62 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 25 0 0 25 0 0 25 0 0 0 0
Lanes: 0 0 0 1 0 1 0 0 1 1 0 1 2 0 1 0 0 1 0 1
Volume Module:
Base Vol: 0 50 17 113 25 128 84 716 186 0 75 37
Growth Adj: 1.34 1.34 1.34 1.17 1.17 1.17 1.06 1.06 1.06 1.19 1.19 1.19
Initial Bse: 0 67 23 132 29 150 89 759 197 0 89 44
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Uptown+TLBS: 0 0 0 38 0 21 20 9 0 0 4 1
Initial Fut: 0 67 23 170 29 171 109 768 197 0 93 45
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 74 25 189 33 190 121 853 219 0 104 50
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 74 25 189 33 190 121 853 219 0 104 50
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 74 25 189 33 190 121 853 219 0 104 50
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.74 0.74 0.72 0.81 0.81 0.90 0.90 0.72 1.00 1.00 0.72
Lanes: 0.00 0.75 0.25 1.00 0.29 1.71 0.37 2.63 1.00 0.00 1.00 1.00
Final Sat.: 0 1044 355 1360 448 2617 641 4515 1373 0 1900 1373
Capacity Analysis Module:
Vol/Sat: 0.00 0.07 0.07 0.14 0.07 0.07 0.19 0.19 0.16 0.00 0.05 0.04
Crit Moves: \*\*\*\*\*
Green/Cycle: 0.00 0.31 0.31 0.31 0.31 0.31 0.42 0.42 0.42 0.00 0.12 0.12
Volume/Cap: 0.00 0.23 0.23 0.44 0.23 0.23 0.45 0.45 0.38 0.00 0.45 0.30
Delay/Veh: 0.0 21.6 21.6 25.3 21.0 21.0 17.4 17.4 18.1 0.0 39.1 36.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 21.6 21.6 25.3 21.0 21.0 17.4 17.4 18.1 0.0 39.1 36.8
DesignQueue: 0 2 1 6 1 6 3 23 6 0 4 2

Uptown Project Traffic Impact Analysis  
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #11 Telegraph Ave./ W. Grand Ave.  
\*\*\*\*\*

Cycle (sec): 60 Critical Vol./Cap. (X): 0.889  
Loss Time (sec): 12 (Y+R = 6 sec) Average Delay (sec/veh): 56.4  
Optimal Cycle: 79 Level Of Service: E

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	20	0	0	20	0	0	15	0	0	15	0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

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Volume Module:

Base Vol:	77	225	21	64	339	70	107	779	300	99	515	41
Growth Adj:	1.11	1.11	1.11	1.09	1.09	1.09	1.24	1.24	1.24	1.34	1.34	1.34
Initial Bse:	85	250	23	70	370	76	133	966	372	133	690	55
Added Vol:	49	20	124	0	5	0	1	9	26	31	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	134	270	147	70	375	76	134	975	398	164	690	55
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	142	284	155	73	394	80	141	1026	419	172	726	58
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	142	284	155	73	394	80	141	1026	419	172	726	58
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	142	284	155	73	394	80	141	1026	419	172	726	58

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Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.47	0.90	0.90	0.47	0.93	0.93	0.23	0.91	0.91	0.18	0.94	0.94
Lanes:	1.00	1.29	0.71	1.00	1.66	0.34	1.00	1.42	0.58	1.00	1.85	0.15
Final Sat.:	888	2211	1208	891	2924	596	443	2453	1001	346	3307	263

\*\*\*\*\*

Capacity Analysis Module:

Vol/Sat:	0.16	0.13	0.13	0.08	0.13	0.13	0.32	0.42	0.42	0.50	0.22	0.22
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.43	0.43	0.43	0.33	0.33	0.33	0.37	0.37	0.37	0.37	0.37	0.37
Volume/Cap:	0.37	0.30	0.30	0.25	0.40	0.40	0.87	1.14	1.14	1.36	0.60	0.60
Delay/Veh:	11.5	11.2	11.2	15.0	15.6	15.6	53.3	92.3	92.3	222.9	16.2	16.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.5	11.2	11.2	15.0	15.6	15.6	53.3	92.3	92.3	222.9	16.2	16.2
DesignQueue:	4	6	3	2	9	2	3	24	10	4	16	1

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Uptown Project Traffic Impact Analysis  
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #12 Telegraph Ave./ 20th St.  
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Cycle (sec): 45 Critical Vol./Cap. (X): 0.763  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 43.1  
Optimal Cycle: 47 Level Of Service: D

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	17	0	0	17	0	0	22	0	0	22	0
Lanes:	1	0	1	1	0	1	0	1	1	0	1	1

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Volume Module:

Base Vol:	25	313	26	197	419	73	15	66	34	60	148	77
Growth Adj:	1.06	1.06	1.06	1.22	1.22	1.22	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	27	332	28	240	511	89	15	66	34	60	148	77
Added Vol:	10	69	16	0	35	20	44	28	43	3	7	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	37	401	44	240	546	109	59	94	77	63	155	78
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.94	0.94	0.94	0.90	0.90	0.90	0.93	0.93	0.93
PHF Volume:	39	431	47	256	581	116	66	104	86	68	167	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	39	431	47	256	581	116	66	104	86	68	167	84
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	39	431	47	256	581	116	66	104	86	68	167	84

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Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.32	0.84	0.84	0.26	0.86	0.86	0.68	0.68	0.68	0.71	0.71	0.71
Lanes:	1.00	0.90	0.10	1.00	1.67	0.33	0.51	0.62	0.67	0.42	1.05	0.53
Final Sat.:	606	1435	156	496	2714	542	666	1061	869	577	1418	714

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Capacity Analysis Module:

Vol/Sat:	0.06	0.30	0.30	0.52	0.21	0.21	0.10	0.10	0.10	0.12	0.12	0.12
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.36	0.36	0.36	0.36	0.36	0.36	0.47	0.47	0.47	0.47	0.47	0.47
Volume/Cap:	0.18	0.83	0.83	1.43	0.59	0.59	0.21	0.21	0.21	0.25	0.25	0.25
Delay/Veh:	12.0	26.8	26.8	235.6	14.4	14.4	7.8	7.8	7.8	8.0	8.0	8.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.0	26.8	26.8	235.6	14.4	14.4	7.8	7.8	7.8	8.0	8.0	8.0
DesignQueue:	1	8	1	4	10	2	1	1	1	1	2	1

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Uptown Project Traffic Impact Analysis  
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #13 Telegraph / William St

Cycle (sec): 45 Critical Vol./Cap. (X): 0.817  
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 18.5  
Optimal Cycle: 52 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	10	0	10	0	0	0
Lanes:	1	0	1	0	0	1	0	0	1	0	0	0

Volume Module: >> Count Date: 30 Jul 2003 <<

Base Vol:	34	370	0	0	350	172	1	0	1	0	0	0
Growth Adj:	1.06	1.06	1.06	1.45	1.45	1.45	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	36	392	0	0	508	249	1	0	1	0	0	0
Added Vol:	10	56	0	0	54	26	38	0	85	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	46	448	0	0	562	275	39	0	86	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	51	498	0	0	624	306	43	0	96	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	51	498	0	0	624	306	43	0	96	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	51	498	0	0	624	306	43	0	96	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.58	1.00	1.00	1.00	0.86	0.86	0.73	1.00	0.73	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.67	0.33	0.31	0.00	0.69	0.00	0.00	0.00
Final Sat.:	1098	1900	0	0	1091	535	433	0	956	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.05	0.26	0.00	0.00	0.57	0.57	0.10	0.00	0.10	0.00	0.00	0.00
Crit Moves:	****											
Green/Cycle:	0.60	0.60	0.00	0.00	0.60	0.60	0.22	0.00	0.22	0.00	0.00	0.00
Volume/Cap:	0.08	0.44	0.00	0.00	0.95	0.95	0.45	0.00	0.45	0.00	0.00	0.00
Delay/Veh:	3.8	5.1	0.0	0.0	26.9	26.9	16.2	0.0	16.2	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	3.8	5.1	0.0	0.0	26.9	26.9	16.2	0.0	16.2	0.0	0.0	0.0
DesignQueue:	1	5	0	0	7	4	1	0	2	0	0	0

Uptown Project Traffic Impact Analysis  
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #14 Telegraph Ave./ 19th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.920  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 114.9  
Optimal Cycle: 71 Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	17	0	0	17	0	0	0	0	0	20	0
Lanes:	1	0	1	0	0	1	0	0	0	0	1	0

Volume Module:

Base Vol:	146	275	0	0	321	41	0	0	0	31	174	133
Growth Adj:	1.04	1.04	1.04	1.45	1.45	1.45	1.00	1.00	1.00	1.25	1.25	1.25
Initial Bse:	152	286	0	0	465	59	0	0	0	39	217	166
Added Vol:	5	54	0	0	59	80	0	0	0	0	6	12
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	157	340	0	0	524	139	0	0	0	39	224	178
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.81	0.81	0.81	0.82	0.82	0.82	0.90	0.90	0.90	0.83	0.83	0.83
PHF Volume:	194	420	0	0	640	170	0	0	0	47	270	215
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	194	420	0	0	640	170	0	0	0	47	270	215
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	194	420	0	0	640	170	0	0	0	47	270	215

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.87	0.85	1.00	1.00	0.74	0.74	1.00	1.00	1.00	0.77	0.77	0.77
Lanes:	1.00	1.00	0.00	0.00	0.79	0.21	0.00	0.00	0.00	0.18	1.01	0.81
Final Sat.:	1644	1615	0	0	1112	296	0	0	0	259	1494	1191

Capacity Analysis Module:

Vol/Sat:	0.12	0.26	0.00	0.00	0.58	0.58	0.00	0.00	0.00	0.18	0.18	0.18
Crit Moves:	****											
Green/Cycle:	0.38	0.38	0.00	0.00	0.38	0.38	0.00	0.00	0.00	0.44	0.44	0.44
Volume/Cap:	0.31	0.69	0.00	0.00	1.52	1.52	0.00	0.00	0.00	0.41	0.41	0.41
Delay/Veh:	11.2	18.0	0.0	0.0	259	259.1	0.0	0.0	0.0	9.4	9.4	9.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.2	18.0	0.0	0.0	259	259.1	0.0	0.0	0.0	9.4	9.4	9.4
DesignQueue:	3	7	0	0	11	3	0	0	0	1	4	3

Uptown Project Traffic Impact Analysis  
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #15 Telegraph / 18th

Cycle (sec): 45 Critical Vol./Cap. (X): 0.535  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 8.0  
Optimal Cycle: 31 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 30 Jul 2003 <<  
Base Vol: 34 405 0 0 305 12 20 0 4 0 0 0  
Growth Adj: 1.05 1.05 1.05 1.48 1.48 1.48 1.06 1.06 1.06 1.06 1.06 1.06  
Initial Bse: 36 425 0 0 451 18 21 0 4 0 0 0  
Added Vol: 3 20 0 0 59 0 39 0 23 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 39 445 0 0 510 18 60 0 27 0 0 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 43 495 0 0 567 20 67 0 30 0 0 0  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 43 495 0 0 567 20 67 0 30 0 0 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 43 495 0 0 567 20 67 0 30 0 0 0

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.65 1.00 1.00 1.00 0.90 0.90 0.54 1.00 0.54 1.00 1.00 1.00  
Lanes: 1.00 1.00 0.00 0.00 0.97 0.03 0.69 0.00 0.31 0.00 0.00 0.00  
Final Sat.: 1239 1900 0 0 1643 57 704 0 319 0 0 0

Capacity Analysis Module:  
Vol/Sat: 0.03 0.26 0.00 0.00 0.35 0.35 0.10 0.00 0.10 0.00 0.00 0.00  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.60 0.60 0.00 0.00 0.60 0.60 0.22 0.00 0.22 0.00 0.00 0.00  
Volume/Cap: 0.06 0.43 0.00 0.00 0.58 0.58 0.43 0.00 0.43 0.00 0.00 0.00  
Delay/Veh: 3.9 6.1 0.0 0.0 7.9 7.9 20.8 0.0 20.8 0.0 0.0 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 3.9 6.1 0.0 0.0 7.9 7.9 20.8 0.0 20.8 0.0 0.0 0.0  
DesignQueue: 0 5 0 0 6 0 1 0 1 0 0 0

Uptown Project Traffic Impact Analysis  
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #16 Telegraph Ave./ 17th St.

Cycle (sec): 40 Critical Vol./Cap. (X): 0.577  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 11.9  
Optimal Cycle: 38 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module:  
Base Vol: 0 258 5 77 194 0 155 698 73 0 0 0  
Growth Adj: 1.05 1.05 1.05 1.48 1.48 1.48 1.06 1.06 1.06 1.00 1.00 1.00  
Initial Bse: 0 271 5 114 287 0 164 740 77 0 0 0  
Added Vol: 0 13 0 0 46 36 0 10 22 17 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 0 284 5 160 323 0 174 762 94 0 0 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 0 315 6 178 359 0 194 847 105 0 0 0  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 315 6 178 359 0 194 847 105 0 0 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 0 315 6 178 359 0 194 847 105 0 0 0

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 0.88 0.88 0.56 0.85 1.00 0.84 0.84 0.84 1.00 1.00 1.00  
Lanes: 0.00 1.96 0.04 1.00 1.00 0.00 0.51 2.22 0.27 0.00 0.00 0.00  
Final Sat.: 0 3269 60 1066 1615 0 810 3542 439 0 0 0

Capacity Analysis Module:  
Vol/Sat: 0.00 0.10 0.10 0.17 0.22 0.00 0.24 0.24 0.24 0.00 0.00 0.00  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.00 0.50 0.50 0.50 0.50 0.00 0.30 0.30 0.30 0.00 0.00 0.00  
Volume/Cap: 0.00 0.19 0.19 0.33 0.44 0.00 0.80 0.80 0.80 0.00 0.00 0.00  
Delay/Veh: 0.0 5.6 5.6 6.4 6.8 0.0 16.1 16.1 16.1 0.0 0.0 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 5.6 5.6 6.4 6.8 0.0 16.1 16.1 16.1 0.0 0.0 0.0  
DesignQueue: 0 4 0 2 4 0 3 14 2 0 0 0



Uptown Project Traffic Impact Analysis  
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #17 Broadway/ W. Grand Ave.

Cycle (sec): 85 Critical Vol./Cap. (X): 0.968  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 29.5  
Optimal Cycle: 120 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	37	0	0	37	0	0	42	0	0	42	0
Lanes:	1	0	2	0	1	1	0	1	1	0	1	0

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	119	421	39	89	861	81	115	492	124	27	439	95
Growth Adj:	1.20	1.20	1.20	1.05	1.05	1.05	1.29	1.29	1.29	1.41	1.41	1.41
Initial Bse:	143	505	47	93	904	85	148	635	160	38	619	134
Added Vol:	0	5	5	0	2	5	23	110	0	2	26	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	143	510	52	93	906	90	171	745	160	40	645	134
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	150	537	55	98	954	95	180	784	168	42	679	141
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	150	537	55	98	954	95	180	784	168	42	679	141
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	150	537	55	98	954	95	180	784	168	42	679	141

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	0.14	0.95	0.72	0.38	0.87	0.87	0.24	0.86	0.86	0.73	0.73	0.73
Lanes:	1.00	2.00	1.00	1.00	1.82	0.18	1.00	1.65	0.35	0.10	1.57	0.33
Final Sat.:	264	3610	1373	730	2998	298	454	2675	575	136	2190	455

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	****											
Green/Cycle:	0.43	0.43	0.43	0.43	0.43	0.43	0.48	0.48	0.48	0.48	0.48	0.48
Volume/Cap:	1.34	0.35	0.09	0.32	0.75	0.75	0.82	0.61	0.61	0.64	0.64	0.64
Delay/Veh:	225.4	17.5	15.3	19.3	24.8	24.8	47.5	18.2	18.2	19.2	19.2	19.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	225.4	17.5	15.3	19.3	24.8	24.8	47.5	18.2	18.2	19.2	19.2	19.2
DesignQueue:	4	15	2	3	29	3	5	21	5	1	18	4

Uptown Project Traffic Impact Analysis  
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #18 Broadway/ 20th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.541  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 13.6  
Optimal Cycle: 43 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	15	0	0	15	0	0	20	0	0	20	0
Lanes:	0	1	0	1	0	1	0	1	0	0	1	0

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	16	328	40	80	562	81	36	218	31	60	151	75
Growth Adj:	1.07	1.07	1.07	1.19	1.19	1.19	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	17	351	43	95	669	96	36	218	31	60	151	75
Added Vol:	0	0	0	0	1	3	10	33	0	1	8	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	17	351	43	95	670	99	46	251	31	61	159	75
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.90	0.90	0.90	0.89	0.89	0.89	0.90	0.90	0.90
PHF Volume:	18	377	46	106	744	110	52	282	35	68	177	83
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	377	46	106	744	110	52	282	35	68	177	83
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	18	377	46	106	744	110	52	282	35	68	177	83

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	0.68	0.68	0.68	0.44	0.75	0.75	0.66	0.66	0.66	0.61	0.61	0.61
Lanes:	0.08	1.71	0.21	1.00	1.74	0.26	0.28	1.53	0.19	0.41	1.08	0.51
Final Sat.:	108	2219	271	834	2498	371	353	1924	238	479	1249	589

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	****											
Green/Cycle:	0.38	0.38	0.38	0.38	0.38	0.38	0.44	0.44	0.44	0.44	0.44	0.44
Volume/Cap:	0.45	0.45	0.45	0.34	0.79	0.79	0.33	0.33	0.33	0.32	0.32	0.32
Delay/Veh:	12.0	12.0	12.0	12.8	18.2	18.2	8.9	8.9	8.9	8.9	8.9	8.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.0	12.0	12.0	12.8	18.2	18.2	8.9	8.9	8.9	8.9	8.9	8.9
DesignQueue:	0	6	1	2	12	2	1	4	0	1	3	1

Uptown Project Traffic Impact Analysis
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #19 Broadway/ 19th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.377
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 13.4
Optimal Cycle: 60 Level Of Service: B

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Volume (Base, Growth, Initial, Added, PasserBy, Initial Fut) and various adjustment factors (User, PHF, Reduct, PCE, MLF, Final).

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #20 Broadway/ 17th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.643
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 17.6
Optimal Cycle: 60 Level Of Service: B

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Volume (Base, Growth, Initial, Added, PasserBy, Initial Fut) and various adjustment factors (User, PHF, Reduct, PCE, MLF, Final).

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #21 Broadway/ 15th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.366
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 7.5
Optimal Cycle: 33 Level Of Service: A

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #22 Broadway/ 14th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.507
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 12.9
Optimal Cycle: 60 Level Of Service: B

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis  
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #23 Frontage Rd./ W. Grand Ave.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.781  
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 33.9  
Optimal Cycle: 79 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns representing different traffic scenarios and 12 rows of metrics like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 12 columns and 5 rows of metrics like Sat/Lane, Adjustment, etc.

Capacity Analysis Module table with 12 columns and 10 rows of metrics like Vol/Sat, Crit Moves, etc.

Uptown Project Traffic Impact Analysis  
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #24 Mandela Pkwy/ W. Grand Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.361  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 17.9  
Optimal Cycle: 118 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns representing different traffic scenarios and 12 rows of metrics like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 12 columns and 5 rows of metrics like Sat/Lane, Adjustment, etc.

Capacity Analysis Module table with 12 columns and 10 rows of metrics like Vol/Sat, Crit Moves, etc.

Uptown Project Traffic Impact Analysis
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #25 Northgate Ave./ W. Grand Ave.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.878
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 34.5
Optimal Cycle: 95 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 9 Nov 2000 <<. Table with 12 columns for volume counts and 12 rows for various traffic metrics.

Saturation Flow Module. Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module. Table with 12 columns for capacity and 10 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #26 Webster St./Grand Ave.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.746
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 37.1
Optimal Cycle: 52 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 8 Jul 2003 <<. Table with 12 columns for volume counts and 12 rows for various traffic metrics.

Saturation Flow Module. Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module. Table with 12 columns for capacity and 10 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Year 2010 plus Project - AM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #27 Harrison St./ Grand Ave.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.801  
Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 26.6  
Optimal Cycle: 75 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	2	0	1	1	0	2	0	1	1	0

Volume Module: >> Count Date: 14 Nov 2000 <<

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	63	717	244	8	1131	78	57	239	128	484	704	124
Growth Adj:	1.20	1.20	1.20	1.12	1.12	1.12	1.22	1.22	1.22	1.14	1.14	1.14
Initial Bse:	76	860	293	9	1267	87	70	292	156	552	803	141
Added Vol:	0	5	0	0	1	6	23	92	0	0	22	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	76	865	293	9	1268	93	93	384	156	552	825	141
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	80	911	308	9	1334	98	97	404	164	581	868	149
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	911	308	9	1334	98	97	404	164	581	868	149
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	80	911	308	9	1334	98	97	404	164	581	868	149

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	0.12	0.95	0.85	0.84	0.84	0.84	0.92	0.91	0.91	0.92	0.93	0.93
Lanes:	1.00	2.00	1.00	0.02	2.78	0.20	2.00	1.42	0.58	2.00	1.71	0.29
Final Sat.:	219	3610	1615	31	4405	324	3502	2455	1000	3502	3014	517

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	0.36	0.25	0.19	0.30	0.30	0.30	0.03	0.16	0.16	0.17	0.29	0.29
Green/Cycle:	0.45	0.45	0.66	0.45	0.45	0.45	0.04	0.21	0.21	0.21	0.38	0.38
Volume/Cap:	0.80	0.56	0.29	0.67	0.67	0.67	0.77	0.80	0.80	0.80	0.77	0.77
Delay/Veh:	56.7	18.3	6.5	20.0	20.0	20.0	66.9	40.5	40.5	40.3	27.4	27.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	56.7	18.3	6.5	20.0	20.0	20.0	66.9	40.5	40.5	40.3	27.4	27.4
DesignQueue:	2	27	5	0	39	3	5	17	7	24	29	5

Uptown Project Traffic Impact Analysis  
Year 2010 plus Project - AM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #28 El Embarcadero/ Grand Ave.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.497  
Loss Time (sec): 12 (Y+R = 8 sec) Average Delay (sec/veh): 19.8  
Optimal Cycle: 67 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	15	0	0	0	0	0	0	30	0	10	30	0
Lanes:	1	0	0	0	0	0	0	0	2	1	0	2

Volume Module: >> Count Date: 9 Jul 2003 <<

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	346	0	245	0	0	0	0	357	254	91	802	0
Growth Adj:	1.05	1.05	1.05	1.00	1.00	1.00	1.07	1.07	1.07	1.04	1.04	1.04
Initial Bse:	363	0	257	0	0	0	0	382	272	95	834	0
Added Vol:	14	0	0	0	0	0	0	92	0	0	8	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	377	0	257	0	0	0	0	474	272	95	842	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	1.00	1.00	1.00	0.91	0.91	0.91	0.90	0.90	0.90
PHF Volume:	414	0	282	0	0	0	0	518	297	105	936	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	414	0	282	0	0	0	0	518	297	105	936	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	414	0	282	0	0	0	0	518	297	105	936	0

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	0.95	1.00	0.85	1.00	1.00	1.00	1.00	0.95	0.68	0.95	0.85	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	1805	0	1615	0	0	0	0	3610	1292	1805	3249	0

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	0.23	0.00	0.17	0.00	0.00	0.00	0.00	0.14	0.23	0.06	0.29	0.00
Green/Cycle:	0.42	0.00	0.42	0.00	0.00	0.00	0.00	0.33	0.76	0.11	0.44	0.00
Volume/Cap:	0.54	0.00	0.41	0.00	0.00	0.00	0.00	0.43	0.30	0.52	0.65	0.00
Delay/Veh:	20.3	0.0	18.6	0.0	0.0	0.0	0.0	23.6	3.7	40.3	20.6	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	20.3	0.0	18.6	0.0	0.0	0.0	0.0	23.6	3.7	40.3	20.6	0.0
DesignQueue:	13	0	8	0	0	0	0	18	4	5	28	0

Uptown Project Traffic Impact Analysis  
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #29 MacArther Blvd./ Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.659  
Loss Time (sec): 12 (Y+R = 8 sec) Average Delay (sec/veh): 22.7  
Optimal Cycle: 74 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	25	0	0	25	0	12	25	0
Lanes:	0	0	0	0	1	1	0	0	2	0	1	0

Volume Module: >> Count Date: 9 Nov 2000 <<

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	278	512	188	0	551	150	277	1062	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.17	1.17	1.17
Initial Bse:	0	0	0	278	512	188	0	551	150	324	1243	0
Added Vol:	0	0	0	0	0	0	0	0	92	0	8	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	278	512	188	0	551	242	324	1251	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	293	539	198	0	580	255	341	1316	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	293	539	198	0	580	255	341	1316	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	293	539	198	0	580	255	341	1316	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.86	0.86	0.86	1.00	0.95	0.85	0.95	0.91	1.00
Lanes:	0.00	0.00	0.00	0.85	1.57	0.58	0.00	2.00	1.00	1.00	3.00	0.00
Final Sat.:	0	0	0	1390	2560	940	0	3610	1615	1805	5187	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.21	0.21	0.21	0.00	0.16	0.16	0.19	0.25	0.00
Crit Moves:	****											
Green/Cycle:	0.00	0.00	0.00	0.31	0.31	0.31	0.00	0.31	0.31	0.23	0.54	0.00
Volume/Cap:	0.00	0.00	0.00	0.67	0.67	0.67	0.00	0.51	0.50	0.84	0.47	0.00
Delay/Veh:	0.0	0.0	0.0	26.3	26.3	26.3	0.0	24.2	26.0	48.1	12.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	26.3	26.3	26.3	0.0	24.2	26.0	48.1	12.0	0.0
DesignQueue:	0	0	0	9	17	6	0	18	8	12	29	0

Uptown Project Traffic Impact Analysis  
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #30 MacArther Blvd./ Lake Shore Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.542  
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 17.2  
Optimal Cycle: 76 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Prot+Permit		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	22	0	0	30	0	12	30	0
Lanes:	0	0	0	1	1	2	0	0	2	0	2	0

Volume Module: >> Count Date: 9 Jul 2000 <<

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	233	435	94	0	457	237	265	648	0
Growth Adj:	1.00	1.00	1.00	1.08	1.08	1.08	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	0	0	0	252	470	102	0	475	246	276	674	0
Added Vol:	0	0	0	0	92	0	0	0	0	0	14	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	252	562	102	0	475	246	276	688	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	0.90	0.90	0.00	0.95	0.95	0.95	0.90	0.90	0.90
PHF Volume:	0	0	0	279	622	0	0	499	259	305	762	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	279	622	0	0	499	259	305	762	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	279	622	0	0	499	259	305	762	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.77	0.77	1.00	1.00	0.95	0.85	0.55	0.95	1.00
Lanes:	0.00	0.00	0.00	1.24	2.76	1.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	1819	4060	1900	0	3610	1615	1040	3610	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.15	0.15	0.00	0.00	0.14	0.16	0.29	0.21	0.00
Crit Moves:	****											
Green/Cycle:	0.00	0.00	0.00	0.28	0.28	0.00	0.00	0.38	0.38	0.58	0.58	0.00
Volume/Cap:	0.00	0.00	0.00	0.56	0.56	0.00	0.00	0.37	0.43	0.51	0.37	0.00
Delay/Veh:	0.0	0.0	0.0	25.3	25.3	0.0	0.0	18.3	19.1	10.1	9.3	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	25.3	25.3	0.0	0.0	18.3	19.1	10.1	9.3	0.0
DesignQueue:	0	0	0	9	21	0	0	14	7	11	15	0

Uptown Project Traffic Impact Analysis  
Year 2010 plus Project - AM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #31 Lake Park Ave./ Lake Shore Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.959  
Loss Time (sec): 16 (Y+R = 12 sec) Average Delay (sec/veh): 73.7  
Optimal Cycle: 120 Level Of Service: E

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 17 Jul 2003 <<. Table with 12 columns for volume counts and 12 columns for various adjustment factors.

Saturation Flow Module: Table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Year 2010 plus Project - AM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #32 Brush St./ 18th St.

Cycle (sec): 75 Critical Vol./Cap. (X): 0.568  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 10.4  
Optimal Cycle: 63 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module: Table with 12 columns for volume counts and 12 columns for various adjustment factors.

Saturation Flow Module: Table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.



Uptown Project Traffic Impact Analysis  
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #33 18th St./ Castro St.  
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Cycle (sec): 40 Critical Vol./Cap. (X): 0.356  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 8.5  
Optimal Cycle: 41 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	20	0	0	0	0	0	0	0	0	13	0
Lanes:	1	1	3	0	0	0	0	0	0	0	0	1

Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol:	189	726	0	0	0	0	0	0	0	0	24	205
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.50	1.50	1.50
Initial Bse:	189	726	0	0	0	0	0	0	0	0	36	308
Added Vol:	0	0	0	0	0	0	0	0	0	0	113	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	189	726	0	0	0	0	0	0	0	0	149	308
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	210	807	0	0	0	0	0	0	0	0	166	342
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	210	807	0	0	0	0	0	0	0	0	166	342
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	210	807	0	0	0	0	0	0	0	0	166	342

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.77	0.77	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	0.90
Lanes:	1.03	3.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65	1.35
Final Sat.:	1518	5830	0	0	0	0	0	0	0	0	1115	2301

Capacity Analysis Module:

Vol/Sat:	0.14	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.15
Crit Moves:	****											
Green/Cycle:	0.49	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.32
Volume/Cap:	0.28	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.47
Delay/Veh:	6.4	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.7	12.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	6.4	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.7	12.7
DesignQueue:	3	10	0	0	0	0	0	0	0	0	3	6

Uptown Project Traffic Impact Analysis  
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #34 MLK Jr. Way/ 18th St.  
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Cycle (sec): 60 Critical Vol./Cap. (X): 0.186  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 11.0  
Optimal Cycle: 62 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	27	0	0	0	27	0	0	0	0	27	0
Lanes:	0	1	1	0	0	1	0	0	0	0	1	0

Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol:	11	137	0	0	142	60	0	0	0	20	60	21
Growth Adj:	1.14	1.14	1.14	1.61	1.61	1.61	1.00	1.00	1.00	1.23	1.23	1.23
Initial Bse:	13	156	0	0	229	97	0	0	0	25	74	26
Added Vol:	0	0	0	0	0	0	0	0	0	0	7	113
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	13	156	0	0	229	97	0	0	0	32	187	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90
PHF Volume:	14	173	0	0	254	107	0	0	0	35	208	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	14	173	0	0	254	107	0	0	0	35	208	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	14	173	0	0	254	107	0	0	0	35	208	29

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.81	0.81	1.00	1.00	0.84	0.84	1.00	1.00	1.00	0.98	0.85	0.85
Lanes:	0.15	1.85	0.00	0.00	1.41	0.59	0.00	0.00	0.00	1.00	2.64	0.36
Final Sat.:	229	2847	0	0	2242	947	0	0	0	1866	4251	588

Capacity Analysis Module:

Vol/Sat:	0.06	0.06	0.00	0.00	0.11	0.11	0.00	0.00	0.00	0.02	0.05	0.05
Crit Moves:	****											
Green/Cycle:	0.44	0.44	0.00	0.00	0.44	0.44	0.00	0.00	0.00	0.44	0.44	0.44
Volume/Cap:	0.14	0.14	0.00	0.00	0.26	0.26	0.00	0.00	0.00	0.04	0.11	0.11
Delay/Veh:	10.7	10.7	0.0	0.0	11.6	11.6	0.0	0.0	0.0	10.2	10.5	10.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.7	10.7	0.0	0.0	11.6	11.6	0.0	0.0	0.0	10.2	10.5	10.5
DesignQueue:	0	3	0	0	5	2	0	0	0	1	4	1

Uptown Project Traffic Impact Analysis  
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #35 Brush St. / 17th St.

Cycle (sec): 40 Critical Vol./Cap. (X): 0.667  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 8.5  
Optimal Cycle: 37 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	15	0	0	10	0	0	0	0
Lanes:	0	0	0	1	1	2	0	0	1	0	0	0

Volume Module:

Base Vol:	0	0	0	1005	813	0	0	181	81	0	0	0
Growth Adj:	1.00	1.00	1.00	1.11	1.11	1.11	1.30	1.30	1.30	1.00	1.00	1.00
Initial Bse:	0	0	0	1116	902	0	0	235	105	0	0	0
Added Vol:	0	0	0	0	113	0	0	7	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	1116	1015	0	0	242	105	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	0	1240	1128	0	0	269	117	0	0	0
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	1240	1128	0	0	269	117	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	1240	1128	0	0	269	117	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.77	0.77	1.00	1.00	0.91	0.91	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	2.00	0.00	0.00	1.39	0.61	0.00	0.00	0.00
Final Sat.:	0	0	0	2939	2939	0	0	2403	1044	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.42	0.38	0.00	0.00	0.11	0.11	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.00	0.00	0.55	0.55	0.00	0.00	0.25	0.25	0.00	0.00	0.00
Volume/Cap:	0.00	0.00	0.00	0.77	0.70	0.00	0.00	0.45	0.45	0.00	0.00	0.00
Delay/Veh:	0.0	0.0	0.0	8.2	7.2	0.0	0.0	13.0	13.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	8.2	7.2	0.0	0.0	13.0	13.0	0.0	0.0	0.0
DesignQueue:	0	0	0	14	12	0	0	5	2	0	0	0

Uptown Project Traffic Impact Analysis  
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #36 17th St / Castro St / I-980 Off-Ramp

Cycle (sec): 70 Critical Vol./Cap. (X): 0.477  
Loss Time (sec): 12 (Y+R = 6 sec) Average Delay (sec/veh): 25.9  
Optimal Cycle: 62 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	1	1	0	0	0	0	20	0	0	20	0
Lanes:	0	0	1	0	0	0	1	0	3	0	0	2

Volume Module:

Base Vol:	0	617	70	0	0	0	182	374	0	0	302	37
Growth Adj:	1.01	1.01	1.01	1.00	1.00	1.00	1.13	1.13	1.13	1.07	1.07	1.07
Initial Bse:	0	623	71	0	0	0	206	423	0	0	323	40
Added Vol:	0	0	21	0	0	0	0	7	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	623	92	0	0	0	206	430	0	0	323	40
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	692	102	0	0	0	229	477	0	0	359	44
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	692	102	0	0	0	229	477	0	0	359	44
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	692	102	0	0	0	229	477	0	0	359	44

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.93	0.93	1.00	1.00	1.00	0.95	0.91	1.00	1.00	1.00	0.90
Lanes:	0.00	1.74	0.26	0.00	0.00	0.00	1.00	3.00	0.00	0.00	2.67	0.33
Final Sat.:	0	3087	454	0	0	0	1805	5187	0	0	4547	557

Capacity Analysis Module:

Vol/Sat:	0.00	0.22	0.22	0.00	0.00	0.00	0.13	0.09	0.00	0.00	0.08	0.08
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.26	0.26	0.00	0.00	0.00	0.29	0.29	0.00	0.00	0.29	0.29
Volume/Cap:	0.00	0.87	0.87	0.00	0.00	0.00	0.44	0.32	0.00	0.00	0.28	0.28
Delay/Veh:	0.0	34.1	34.1	0.0	0.0	0.0	21.1	19.8	0.0	0.0	19.5	19.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	34.1	34.1	0.0	0.0	0.0	21.1	19.8	0.0	0.0	19.5	19.5
DesignQueue:	0	21	3	0	0	0	7	14	0	0	10	1

Uptown Project Traffic Impact Analysis  
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #37 MLK Jr. Way/ 17th St

Cycle (sec): 60 Critical Vol./Cap. (X): 0.355  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 12.2  
Optimal Cycle: 58 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control (Permitted, Include), Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 8 Jul 2003 <<  
Table with 12 columns for volume counts and 12 columns for adjustment factors (Growth Adj, Initial Bse, etc.).

Saturation Flow Module:  
Table with 12 columns for saturation flow values and 12 columns for adjustment factors.

Capacity Analysis Module:  
Table with 12 columns for capacity analysis values and 12 columns for adjustment factors.

Uptown Project Traffic Impact Analysis  
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #38 Jefferson St./ 17th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.299  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 11.6  
Optimal Cycle: 59 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control (Permitted, Include), Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 8 Jul 2003 <<  
Table with 12 columns for volume counts and 12 columns for adjustment factors (Growth Adj, Initial Bse, etc.).

Saturation Flow Module:  
Table with 12 columns for saturation flow values and 12 columns for adjustment factors.

Capacity Analysis Module:  
Table with 12 columns for capacity analysis values and 12 columns for adjustment factors.

Uptown Project Traffic Impact Analysis
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #39 Franklin St./ 17th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.511
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 42.8
Optimal Cycle: 45 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 23 0 0 0 0 0 14 0 0 0 0 0 0
Lanes: 0 0 3 1 0 0 0 0 0 0 0 0 0 0

Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol: 0 344 63 0 0 0 269 431 0 0 0 0 0 0
Growth Adj: 1.27 1.27 1.27 1.00 1.00 1.00 1.25 1.25 1.25 1.00 1.00 1.00 1.00
Initial Bse: 0 437 80 0 0 0 336 539 0 0 0 0 0 0
Added Vol: 0 8 0 0 0 0 0 67 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 445 80 0 0 0 336 606 0 0 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.92 1.00 1.00 1.00 1.00 1.00 1.00 0.98 0.98 0.98
PHF Volume: 0 485 87 0 0 0 336 606 0 0 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 485 87 0 0 0 336 606 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 485 87 0 0 0 336 606 0 0 0 0 0 0

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.86 0.86 1.00 1.00 1.00 0.75 0.75 1.00 1.00 1.00 1.00
Lanes: 0.00 3.39 0.61 0.00 0.00 0.00 0.71 1.29 0.00 0.00 0.00 0.00
Final Sat.: 0 5512 991 0 0 0 1013 1825 0 0 0 0 0 0

Capacity Analysis Module:

Vol/Sat: 0.00 0.09 0.09 0.00 0.00 0.00 0.33 0.33 0.00 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.51 0.51 0.00 0.00 0.00 0.31 0.31 0.00 0.00 0.00 0.00
Volume/Cap: 0.00 0.17 0.17 0.00 0.00 0.00 1.07 1.07 0.00 0.00 0.00 0.00
Delay/Veh: 0.0 6.0 6.0 0.0 0.0 0.0 65.2 65.2 0.0 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 6.0 6.0 0.0 0.0 0.0 65.2 65.2 0.0 0.0 0.0 0.0
DesignQueue: 0 6 1 0 0 0 6 11 0 0 0 0 0 0

Uptown Project Traffic Impact Analysis
Year 2010 plus Project - AM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #40 Webster St./ 17th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.401
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 12.0
Optimal Cycle: 47 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 17 0 0 0 0 0 0
Lanes: 0 0 0 0 0 0 1 3 0 0 0 0 1 1 0 0 0 0 0 0

Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol: 0 0 0 57 419 0 0 288 183 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.06 1.06 1.06 1.30 1.30 1.30 1.00 1.00 1.00
Initial Bse: 0 0 0 60 444 0 0 374 238 0 0 0 0
Added Vol: 0 0 0 0 0 0 0 35 32 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 60 444 0 0 409 270 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 0.90 0.90 0.90 0.93 0.93 0.93 1.00 1.00 1.00
PHF Volume: 0 0 0 67 493 0 0 442 291 0 0 0 0
Reduct Vol: 0 0 0 67 493 0 0 442 291 0 0 0 0
Reduced Vol: 0 0 0 67 493 0 0 442 291 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 67 493 0 0 442 291 0 0 0 0

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.74 0.74 1.00 1.00 0.83 0.83 1.00 1.00 1.00
Lanes: 0.00 0.00 0.00 0.48 3.52 0.00 0.00 1.21 0.79 0.00 0.00 0.00
Final Sat.: 0 0 0 678 4981 0 0 1892 1247 0 0 0 0

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.10 0.10 0.00 0.00 0.23 0.23 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.00 0.00 0.47 0.47 0.00 0.00 0.36 0.36 0.00 0.00 0.00
Volume/Cap: 0.00 0.00 0.00 0.21 0.21 0.00 0.00 0.65 0.65 0.00 0.00 0.00
Delay/Veh: 0.0 0.0 0.0 7.6 7.6 0.0 0.0 15.3 15.3 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 7.6 7.6 0.0 0.0 15.3 15.3 0.0 0.0 0.0
DesignQueue: 0 0 0 1 7 0 0 8 5 0 0 0 0

LEVEL OF SERVICE CALCULATION WORKSHEETS  
YEAR 2025 NO PROJECT CONDITIONS

Uptown Project Traffic Impact Analysis
Year 2010 Plus Project - PM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #1 San Pablo Ave./ 31st St.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.466
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 10.7
Optimal Cycle: 82 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North, South, East, West bounds.

Volume Module: >> Count Date: 9 Jul 2003 <<
Base Vol: 0 800 0 43 622 0 0 0 0 0 184 0 21
Growth Adj: 1.36 1.36 1.36 1.34 1.34 1.34 1.00 1.00 1.00 1.32 1.32 1.32

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.85 1.00 0.20 0.85 1.00 1.00 1.00 1.00 0.92 1.00 0.68

Capacity Analysis Module:
Vol/Sat: 0.00 0.35 0.00 0.16 0.27 0.00 0.00 0.00 0.00 0.07 0.00 0.02
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.63 0.00 0.63 0.63 0.00 0.00 0.00 0.00 0.27 0.00 0.27

Uptown Project Traffic Impact Analysis
Year 2010 Plus Project - PM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #2 San Pablo Ave./ Market St.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.472
Loss Time (sec): 8 (Y+R = 10 sec) Average Delay (sec/veh): 10.9
Optimal Cycle: 78 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North, South, East, West bounds.

Volume Module: >> Count Date: 9 Jul 2003 <<
Base Vol: 0 749 0 0 729 167 111 144 15 0 0 0
Growth Adj: 1.07 1.07 1.07 1.00 1.00 1.00 1.34 1.34 1.34 1.39 1.39 1.39

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.88 0.95 1.00 0.86 0.86 0.86 0.86 0.86 1.00 1.00 1.00

Capacity Analysis Module:
Vol/Sat: 0.00 0.26 0.00 0.00 0.31 0.31 0.12 0.12 0.12 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.65 0.00 0.00 0.65 0.65 0.25 0.25 0.25 0.00 0.00 0.00

Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #3 San Pablo Ave. / 27th  
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Cycle (sec): 90 Critical Vol./Cap. (X): 1.089  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 28.2  
Optimal Cycle: 120 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	60	0	0	60	0	0	22	0	0	22	0
Lanes:	0	1	0	1	0	1	0	0	1	0	0	1

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	8	960	60	174	638	7	21	40	19	53	87	90
Growth Adj:	1.19	1.19	1.19	1.25	1.25	1.25	1.20	1.20	1.20	1.19	1.19	1.19
Initial Bse:	10	1142	71	217	798	9	25	48	23	63	104	107
Added Vol:	4	29	0	0	54	0	0	0	7	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	14	1171	71	217	852	9	25	48	30	63	104	107
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	15	1302	79	242	946	10	28	53	33	70	115	119
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	15	1302	79	242	946	10	28	53	33	70	115	119
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	15	1302	79	242	946	10	28	53	33	70	115	119

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	0.88	0.88	0.88	0.14	0.95	0.95	0.78	0.78	0.78	0.74	1.00	0.85
Lanes:	0.02	1.87	0.11	1.00	1.98	0.02	0.24	0.47	0.29	1.00	1.00	1.00
Final Sat.:	36	3126	191	264	3570	37	362	689	428	1406	1900	1615

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	****											
Green/Cycle:	0.67	0.67	0.67	0.67	0.67	0.67	0.24	0.24	0.24	0.24	0.24	0.24
Volume/Cap:	0.62	0.62	0.62	1.37	0.40	0.40	0.32	0.32	0.32	0.20	0.25	0.30
Delay/Veh:	9.9	9.9	9.9	214.3	7.3	7.3	30.1	30.1	30.1	28.4	28.6	29.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.9	9.9	9.9	214.3	7.3	7.3	30.1	30.1	30.1	28.4	28.6	29.7
DesignQueue:	0	24	1	4	17	0	1	2	1	3	4	5

Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #4 San Pablo Ave./ West St./25th St  
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Cycle (sec): 90 Critical Vol./Cap. (X): 0.478  
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 16.1  
Optimal Cycle: 73 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	32	0	0	32	0	12	0	12	17	0	17
Lanes:	0	1	0	1	0	1	0	0	1	0	0	1

Volume Module: >> Count Date: 9 Jul 2003 <<

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	901	63	12	554	0	5	0	8	25	0	65
Growth Adj:	1.12	1.12	1.12	1.01	1.01	1.01	1.24	1.24	1.24	1.42	1.42	1.42
Initial Bse:	0	1009	71	12	560	0	6	0	10	36	0	92
Added Vol:	0	33	10	0	61	0	0	0	0	18	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1042	81	12	621	0	6	0	10	53	0	92
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	1102	85	13	656	0	7	0	10	57	0	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1102	85	13	656	0	7	0	10	57	0	98
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	1102	85	13	656	0	7	0	10	57	0	98

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	0.95	0.85	0.85	0.78	0.78	0.95	0.64	1.00	0.64	0.95	1.00	0.68
Lanes:	0.00	1.86	0.14	0.04	1.96	0.00	0.38	0.00	0.62	1.00	0.00	1.00
Final Sat.:	0	2983	231	57	2925	0	469	0	750	1805	0	1292

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	****											
Green/Cycle:	0.00	0.54	0.54	0.54	0.54	0.00	0.13	0.00	0.13	0.19	0.00	0.19
Volume/Cap:	0.00	0.68	0.68	0.41	0.41	0.00	0.10	0.00	0.10	0.17	0.00	0.40
Delay/Veh:	0.0	15.9	15.9	12.2	12.2	0.0	34.6	0.0	34.6	30.8	0.0	33.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	15.9	15.9	12.2	12.2	0.0	34.6	0.0	34.6	30.8	0.0	33.1
DesignQueue:	0	27	2	0	16	0	0	0	0	2	0	4

Uptown Project Traffic Impact Analysis
Year 2010 Plus Project - PM Peak Hour

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #5 San Pablo Ave./ Grand Ave

Cycle (sec): 80 Critical Vol./Cap. (X): 0.705
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 24.5
Optimal Cycle: 81 Level Of Service: C

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis
Year 2010 Plus Project - PM Peak Hour

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #6 San Pablo Ave./ 20th St.

Cycle (sec): 80 Critical Vol./Cap. (X): 1.160
Loss Time (sec): 12 (Y+R = 25 sec) Average Delay (sec/veh): 85.4
Optimal Cycle: 120 Level Of Service: F

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.



Uptown Project Traffic Impact Analysis
Year 2010 Plus Project - PM Peak Hour

Level Of Service Computation Report

1997 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 San Pablo / William St

Average Delay (sec/veh): 1.5 Worst Case Level Of Service: C

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Vol.

Critical Gap Module table with columns for Critical Gap, FollowUpTim.

Capacity Module table with columns for Conflict Vol, Potent Cap., Move Cap.

Level Of Service Module table with columns for Stopped Del, LOS by Move, Movement, Shared Cap., Shrd StpDel, Shared LOS, ApproachDel, ApproachLOS.

Uptown Project Traffic Impact Analysis
Year 2010 Plus Project - PM Peak Hour

Level Of Service Computation Report

1997 HCM Operations Method (Future Volume Alternative)

Intersection #8 San Pablo Ave./ 19th St.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.734

Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 27.4

Optimal Cycle: 79 Level Of Service: C

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis
Year 2010 Plus Project - PM Peak Hour

Level Of Service Computation Report

1997 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 San Pablo / 18th

Average Delay (sec/veh): 2.4 Worst Case Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 0 1 0 0 0 1 1 0 0 0 0 0 1 0 0

Volume Module:
Base Vol: 0 165 34 22 345 0 4 2 4 8 0 20
Growth Adj: 2.44 2.44 2.44 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 403 83 22 345 0 4 2 4 8 0 20
Added Vol: 0 95 21 40 15 0 0 0 0 2 0 4
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 498 104 62 360 0 4 2 4 10 0 24
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 553 116 69 400 0 4 2 4 11 0 27
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 553 116 69 400 0 4 2 4 11 0 27

Critical Gap Module:
Critical Gp:xxxxx xxxxx xxxxx 4.1 xxxxx xxxxx 7.1 6.5 6.2 7.1 xxxxx 6.2
FollowUpTim:xxxxx xxxxx xxxxx 2.2 xxxxx xxxxx 3.5 4.0 3.3 3.5 xxxxx 3.3

Capacity Module:
Cnflct Vol: xxxxx xxxxx xxxxx 668 xxxxx xxxxx 1108 1155 64 886 xxxxx 611
Potent Cap.: xxxxx xxxxx xxxxx 931 xxxxx xxxxx 181 190 962 256 xxxxx 498
Move Cap.: xxxxx xxxxx xxxxx 931 xxxxx xxxxx 161 175 962 237 xxxxx 498

Level Of Service Module:
Stopped Del:xxxxx xxxxx xxxxx 9.2 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
LOS by Move: \* \* \* \* A \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \*
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 247 xxxxx xxxxx 376 xxxxx
Shrd StpDel:xxxxx xxxxx xxxxx 9.2 xxxxx xxxxx xxxxx 20.2 xxxxx xxxxx 15.6 xxxxx
Shared LOS: \* \* \* \* A \* \* \* \* \* C \* \* \* \* C \*
ApproachDel: xxxxxxx xxxxxxx 20.2 15.6
ApproachLOS: \* \* \* \* C C

Uptown Project Traffic Impact Analysis
Year 2010 Plus Project - PM Peak Hour

Level Of Service Computation Report

1997 HCM Operations Method (Future Volume Alternative)

Intersection #10 San Pablo / 17th / Clay

Cycle (sec): 70 Critical Vol./Cap. (X): 0.498

Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 20.1

Optimal Cycle: 62 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 25 0 0 25 0 0 25 0
Lanes: 0 0 0 1 0 1 0 0 0 1 1 1 0 0 2 0 1 0 0 0 1 0 1

Volume Module:
Base Vol: 0 65 71 137 30 164 37 463 74 0 111 43
Growth Adj: 1.72 1.72 1.72 1.09 1.09 1.09 1.07 1.07 1.07 1.18 1.18 1.18
Initial Bse: 0 112 122 149 33 179 40 495 79 0 131 51
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Uptown+TLB: 0 0 0 12 0 5 98 25 0 0 19 3
Initial Fut: 0 112 122 161 33 184 138 520 79 0 150 54
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 124 136 179 36 204 153 578 88 0 167 60
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 124 136 179 36 204 153 578 88 0 167 60
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 124 136 179 36 204 153 578 88 0 167 60

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.83 0.83 0.70 0.87 0.87 0.95 0.95 0.85 1.00 1.00 0.85
Lanes: 0.00 0.48 0.52 1.00 0.30 1.70 1.00 2.00 1.00 0.00 1.00 1.00
Final Sat.: 0 754 823 1330 501 2816 1805 3610 1615 0 1900 1615

Capacity Analysis Module:
Vol/Sat: 0.00 0.16 0.16 0.13 0.07 0.07 0.08 0.16 0.05 0.00 0.09 0.04
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.36 0.36 0.36 0.36 0.36 0.36 0.36 0.36 0.00 0.11 0.11
Volume/Cap: 0.00 0.46 0.46 0.46 0.38 0.20 0.20 0.24 0.45 0.15 0.00 0.32
Delay/Veh: 0.0 17.9 17.9 17.2 15.7 15.7 16.0 17.5 15.4 0.0 45.3 29.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 17.9 17.9 17.2 15.7 15.7 16.0 17.5 15.4 0.0 45.3 29.5
DesignQueue: 0 3 4 5 1 5 4 15 2 0 6 2

Uptown Project Traffic Impact Analysis
Year 2010 Plus Project - PM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #11 Telegraph Ave./ W. Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 1.225
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 38.6
Optimal Cycle: 120 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 10 columns and 14 rows including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 10 columns and 5 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 10 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis
Year 2010 Plus Project - PM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #12 Telegraph Ave./ 20th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.635
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 22.3
Optimal Cycle: 47 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 10 columns and 14 rows including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 10 columns and 5 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 10 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #13 Telegraph / William St  
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Cycle (sec): 45 Critical Vol./Cap. (X): 0.706  
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 11.3  
Optimal Cycle: 41 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Rights:	0 0 0			0 0 0			10 0 10			0 0 0		
Min. Green:	0 0 0			0 0 0			0 0 0			0 0 0		
Lanes:	1 0 1 0 0			0 0 0 1 0			0 0 1 0 0			0 0 0 0 0		

Volume Module:

Base Vol:	14	440	0	0	400	28	1	0	1	0	0	0
Growth Adj:	1.15	1.15	1.15	1.32	1.32	1.32	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	506	0	0	528	37	1	0	1	0	0	0
Added Vol:	41	68	0	0	72	134	18	0	47	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	57	574	0	0	600	171	19	0	48	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	63	638	0	0	667	190	21	0	53	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	63	638	0	0	667	190	21	0	53	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	63	638	0	0	667	190	21	0	53	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.56	1.00	1.00	1.00	0.87	0.87	0.63	1.00	0.63	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.78	0.22	0.28	0.00	0.72	0.00	0.00	0.00
Final Sat.:	1055	1900	0	0	1286	367	341	0	861	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.06	0.34	0.00	0.00	0.52	0.52	0.06	0.00	0.06	0.00	0.00	0.00
Crit Moves:	*****											
Green/Cycle:	0.60	0.60	0.00	0.00	0.60	0.60	0.22	0.00	0.22	0.00	0.00	0.00
Volume/Cap:	0.10	0.56	0.00	0.00	0.86	0.86	0.28	0.00	0.28	0.00	0.00	0.00
Delay/Veh:	3.9	6.0	0.0	0.0	15.4	15.4	15.1	0.0	15.1	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	3.9	6.0	0.0	0.0	15.4	15.4	15.1	0.0	15.1	0.0	0.0	0.0
DesignQueue:	1	7	0	0	8	2	0	0	1	0	0	0

Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #14 Telegraph Ave./ 19th St.  
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Cycle (sec): 45 Critical Vol./Cap. (X): 0.992  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 81.5  
Optimal Cycle: 97 Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Rights:	0 17 0			0 17 0			0 0 0			0 22 0		
Min. Green:	0 1 0 0			0 0 1 0			0 0 0 0			0 1 0 1 0		
Lanes:	1 0 1 0 0			0 0 0 1 0			0 0 0 0 0			0 1 0 1 0		

Volume Module:

Base Vol:	57	355	0	0	377	46	0	0	0	28	552	122
Growth Adj:	1.06	1.06	1.06	1.32	1.32	1.32	1.00	1.00	1.00	1.18	1.18	1.18
Initial Bse:	60	376	0	0	498	61	0	0	0	33	651	144
Added Vol:	23	62	0	0	50	69	0	0	0	0	27	48
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	83	438	0	0	548	130	0	0	0	33	678	192
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.93	0.93	0.93	1.00	1.00	1.00	0.94	0.94	0.94
PHF Volume:	86	452	0	0	589	139	0	0	0	35	722	204
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	86	452	0	0	589	139	0	0	0	35	722	204
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	86	452	0	0	589	139	0	0	0	35	722	204

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.86	0.85	1.00	1.00	0.74	0.74	1.00	1.00	1.00	0.82	0.82	0.82
Lanes:	1.00	1.00	0.00	0.00	0.81	0.19	0.00	0.00	0.00	0.07	1.51	0.42
Final Sat.:	1628	1615	0	0	1141	270	0	0	0	114	2350	665

Capacity Analysis Module:

Vol/Sat:	0.05	0.28	0.00	0.00	0.52	0.52	0.00	0.00	0.00	0.31	0.31	0.31
Crit Moves:	*****											
Green/Cycle:	0.36	0.36	0.00	0.00	0.36	0.36	0.00	0.00	0.00	0.47	0.47	0.47
Volume/Cap:	0.15	0.77	0.00	0.00	1.43	1.43	0.00	0.00	0.00	0.66	0.66	0.66
Delay/Veh:	10.6	22.9	0.0	0.0	218	218.1	0.0	0.0	0.0	11.9	11.9	11.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.6	22.9	0.0	0.0	218	218.1	0.0	0.0	0.0	11.9	11.9	11.9
DesignQueue:	1	8	0	0	11	3	0	0	0	1	11	3

Uptown Project Traffic Impact Analysis  
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Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #15 Telegraph / 18th St

Cycle (sec): 45 Critical Vol./Cap. (X): 0.659  
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 9.5  
Optimal Cycle: 38 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	7	0	7	0	0	0
Lanes:	1	0	1	0	0	1	0	0	1	0	0	0

Volume Module:

Base Vol:	42	350	0	0	380	34	44	0	36	0	0	0
Growth Adj:	1.18	1.18	1.18	1.39	1.39	1.39	1.16	1.16	1.16	1.16	1.16	1.16
Initial Bse:	50	413	0	0	528	47	51	0	42	0	0	0
Added Vol:	15	66	0	0	50	0	19	0	11	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	65	479	0	0	578	47	70	0	53	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	72	532	0	0	642	53	78	0	59	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	72	532	0	0	642	53	78	0	59	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	72	532	0	0	642	53	78	0	59	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.58	1.00	1.00	1.00	0.89	0.89	0.55	1.00	0.55	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.92	0.08	0.57	0.00	0.43	0.00	0.00	0.00
Final Sat.:	1094	1900	0	0	1563	128	594	0	448	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.07	0.28	0.00	0.00	0.41	0.41	0.13	0.00	0.13	0.00	0.00	0.00
Crit Moves:	****											
Green/Cycle:	0.62	0.62	0.00	0.00	0.62	0.62	0.20	0.00	0.20	0.00	0.00	0.00
Volume/Cap:	0.11	0.45	0.00	0.00	0.66	0.66	0.66	0.00	0.66	0.00	0.00	0.00
Delay/Veh:	3.7	5.7	0.0	0.0	8.6	8.6	31.9	0.0	31.9	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	3.7	5.7	0.0	0.0	8.6	8.6	31.9	0.0	31.9	0.0	0.0	0.0
DesignQueue:	1	5	0	0	7	1	2	0	1	0	0	0

Uptown Project Traffic Impact Analysis  
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Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #16 Telegraph Ave./ 17th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.529  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 10.7  
Optimal Cycle: 30 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	1	1	0	1	0	1	1	0	0	0

Volume Module:

Base Vol:	0	363	4	92	265	0	60	451	66	0	0	0
Growth Adj:	1.18	1.18	1.18	1.39	1.39	1.39	1.16	1.16	1.16	1.00	1.00	1.00
Initial Bse:	0	428	5	128	368	0	70	523	77	0	0	0
Added Vol:	0	54	0	35	26	0	28	2	3	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	482	5	163	394	0	98	525	80	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	536	5	181	438	0	108	584	88	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	536	5	181	438	0	108	584	88	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	536	5	181	438	0	108	584	88	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.88	0.88	0.46	0.85	1.00	0.84	0.84	0.84	1.00	1.00	1.00
Lanes:	0.00	1.98	0.02	1.00	1.00	0.00	0.42	2.24	0.34	0.00	0.00	0.00
Final Sat.:	0	3304	32	870	1615	0	662	3560	539	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.16	0.16	0.21	0.27	0.00	0.16	0.16	0.16	0.00	0.00	0.00
Crit Moves:	****											
Green/Cycle:	0.00	0.51	0.51	0.51	0.51	0.00	0.31	0.31	0.31	0.00	0.00	0.00
Volume/Cap:	0.00	0.32	0.32	0.41	0.53	0.00	0.53	0.53	0.53	0.00	0.00	0.00
Delay/Veh:	0.0	6.9	6.9	9.5	9.8	0.0	14.2	14.2	14.2	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	6.9	6.9	9.5	9.8	0.0	14.2	14.2	14.2	0.0	0.0	0.0
DesignQueue:	0	7	0	2	6	0	2	10	2	0	0	0

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Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #17 Broadway/ W. Grand Ave.

Cycle (sec): 85 Critical Vol./Cap. (X): 1.305  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 55.5  
Optimal Cycle: 120 Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	37	0	0	37	0	0	42	0	0	42	0
Lanes:	1	0	2	0	1	1	0	1	1	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	301	734	200	59	494	125	136	585	86	84	356	33
Growth Adj:	1.12	1.12	1.12	1.04	1.04	1.04	1.24	1.24	1.24	1.34	1.34	1.34
Initial Bse:	337	822	224	61	514	130	169	725	107	113	477	44
Added Vol:	0	4	3	0	9	20	12	61	0	10	106	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	337	826	227	61	523	150	181	786	107	123	583	44
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	375	918	252	68	581	167	201	874	118	136	648	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	375	918	252	68	581	167	201	874	118	136	648	49
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	375	918	252	68	581	167	201	874	118	136	648	49

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.26	0.95	0.72	0.19	0.85	0.85	0.25	0.86	0.86	0.50	0.50	0.50
Lanes:	1.00	2.00	1.00	1.00	1.55	0.45	1.00	1.76	0.24	0.33	1.55	0.12
Final Sat.:	502	3610	1373	361	2509	720	477	2888	392	311	1480	112

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.75	0.25	0.18	0.19	0.23	0.23	0.42	0.30	0.30	0.44	0.44	0.44
Crit Moves:	****											
Green/Cycle:	0.43	0.43	0.43	0.43	0.43	0.43	0.48	0.48	0.48	0.48	0.48	0.48
Volume/Cap:	1.76	0.60	0.43	0.44	0.54	0.54	0.87	0.63	0.63	0.91	0.91	0.91
Delay/Veh:	383.7	21.0	19.9	26.8	20.2	20.2	53.7	18.6	18.6	35.0	35.0	35.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	383.7	21.0	19.9	26.8	20.2	20.2	53.7	18.6	18.6	35.0	35.0	35.0
DesignQueue:	11	27	7	2	17	5	5	23	3	4	17	1

Uptown Project Traffic Impact Analysis  
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Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #18 Broadway/ 20th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.502  
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 13.0  
Optimal Cycle: 56 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	30	0	0	30	0	0	18	0	0	18	0
Lanes:	0	1	0	0	1	0	0	1	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	27	360	91	36	573	40	38	249	43	70	196	84
Growth Adj:	1.22	1.22	1.22	1.11	1.11	1.11	1.00	1.00	1.00	1.01	1.01	1.01
Initial Bse:	33	439	111	40	636	44	38	249	43	71	198	85
Added Vol:	0	0	0	0	3	16	7	18	0	3	32	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	33	439	111	40	639	60	45	267	43	74	230	85
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.96	0.96	0.96	0.94	0.94	0.94	0.92	0.92	0.92
PHF Volume:	35	472	119	42	666	63	48	284	46	80	250	92
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	472	119	42	666	63	48	284	46	80	250	92
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	35	472	119	42	666	63	48	284	46	80	250	92

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.67	0.67	0.67	0.33	0.76	0.76	0.65	0.65	0.65	0.61	0.61	0.61
Lanes:	0.11	1.51	0.38	1.00	1.83	0.17	0.25	1.51	0.24	0.38	1.18	0.44
Final Sat.:	144	1914	484	636	2637	249	315	1870	301	439	1369	505

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.25	0.25	0.25	0.07	0.25	0.25	0.15	0.15	0.15	0.18	0.18	0.18
Crit Moves:	****											
Green/Cycle:	0.50	0.50	0.50	0.50	0.50	0.50	0.36	0.36	0.36	0.36	0.36	0.36
Volume/Cap:	0.49	0.49	0.49	0.13	0.50	0.50	0.42	0.42	0.42	0.50	0.50	0.50
Delay/Veh:	11.2	11.2	11.2	8.8	11.2	11.2	15.7	15.7	15.7	17.0	17.0	17.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.2	11.2	11.2	8.8	11.2	11.2	15.7	15.7	15.7	17.0	17.0	17.0
DesignQueue:	1	8	2	1	12	1	1	6	1	2	5	2

Uptown Project Traffic Impact Analysis  
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Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #19 Broadway/ 19th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.634  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 14.6  
Optimal Cycle: 60 Level Of Service: B

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R

Control:	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0 21 0	0 21 0	0 0 0	0 31 0
Lanes:	0 1 1 0 0	0 0 2 1 0	0 0 0 0 0	0 1 0 1 0

Volume Module:	North Bound				South Bound				East Bound				West Bound			
Base Vol:	48	383	0	0	0	695	60	0	0	0	0	0	93	582	111	0
Growth Adj:	1.15	1.15	1.15	1.09	1.09	1.09	1.09	1.00	1.00	1.00	1.00	1.00	1.06	1.06	1.06	1.00
Initial Bse:	55	440	0	0	0	758	65	0	0	0	0	0	99	617	118	0
Added Vol:	0	0	0	0	0	0	6	0	0	0	0	0	0	68	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	55	440	0	0	0	758	71	0	0	0	0	0	99	685	118	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	61	489	0	0	0	842	79	0	0	0	0	0	110	761	131	0
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	61	489	0	0	0	842	79	0	0	0	0	0	110	761	131	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	61	489	0	0	0	842	79	0	0	0	0	0	110	761	131	0

Saturation Flow Module:	North Bound				South Bound				East Bound				West Bound			
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.63	0.63	1.00	1.00	0.81	0.81	1.00	1.00	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Lanes:	0.22	1.78	0.00	0.00	2.74	0.26	0.00	0.00	0.22	1.52	0.26	0.26	0.22	1.52	0.26	0.26
Final Sat.:	268	2142	0	0	4211	397	0	0	341	2372	407	407	341	2372	407	407

Capacity Analysis Module:	North Bound				South Bound				East Bound				West Bound			
Vol/Sat:	0.23	0.23	0.00	0.00	0.20	0.20	0.00	0.00	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.35	0.35	0.00	0.00	0.35	0.35	0.00	0.00	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52
Volume/Cap:	0.65	0.65	0.00	0.00	0.57	0.57	0.00	0.00	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62
Delay/Veh:	18.3	18.3	0.0	0.0	16.3	16.3	0.0	0.0	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	18.3	18.3	0.0	0.0	16.3	16.3	0.0	0.0	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1
DesignQueue:	1	11	0	0	19	2	0	0	2	13	2	2	2	13	2	2

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Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #20 Broadway/ 17th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.601  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 14.1  
Optimal Cycle: 60 Level Of Service: B

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R

Control:	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0 27 0	0 27 0	0 25 0	0 0 0
Lanes:	0 0 1 1 0	0 1 2 0 0	1 0 1 1 0	0 0 0 0 0

Volume Module:	North Bound				South Bound				East Bound				West Bound			
Base Vol:	0	358	82	109	635	0	80	398	63	0	0	0	0	0	0	0
Growth Adj:	1.02	1.02	1.02	1.07	1.07	1.07	1.38	1.38	1.38	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	365	84	117	679	0	110	549	87	0	0	0	0	0	0	0
Added Vol:	0	0	0	0	0	0	0	37	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	365	84	117	679	0	110	586	87	0	0	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	406	93	130	755	0	123	651	97	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	406	93	130	755	0	123	651	97	0	0	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	406	93	130	755	0	123	651	97	0	0	0	0	0	0	0

Saturation Flow Module:	North Bound				South Bound				East Bound				West Bound			
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.75	0.75	0.60	0.60	1.00	0.88	0.75	0.75	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	1.63	0.37	0.44	2.56	0.00	1.00	1.74	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	0	2313	530	499	2904	0	1678	2498	370	0	0	0	0	0	0	0

Capacity Analysis Module:	North Bound				South Bound				East Bound				West Bound			
Vol/Sat:	0.00	0.18	0.18	0.26	0.26	0.00	0.07	0.26	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.00	0.45	0.45	0.45	0.45	0.00	0.42	0.42	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Volume/Cap:	0.00	0.39	0.39	0.58	0.58	0.00	0.18	0.63	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	11.9	11.9	13.9	13.9	0.0	11.6	16.3	16.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	11.9	11.9	13.9	13.9	0.0	11.6	16.3	16.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DesignQueue:	0	8	2	2	14	0	2	13	2	0	0	0	0	0	0	0

Uptown Project Traffic Impact Analysis
Year 2010 Plus Project - PM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #21 Broadway/ 15th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.482
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 8.8
Optimal Cycle: 33 Level Of Service: A

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis
Year 2010 Plus Project - PM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #22 Broadway/ 14th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.622
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 14.3
Optimal Cycle: 60 Level Of Service: B

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.



Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #23 Frontage Rd./ W. Grand Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 1.170  
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 106.4  
Optimal Cycle: 120 Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R

Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	7	0	0	7	0	0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:

Base Vol:	28	157	172	84	62	5	381	309	61	95	914	298
Growth Adj:	1.00	1.00	1.00	1.13	1.13	1.13	1.41	1.41	1.41	1.18	1.18	1.18
Initial Bse:	28	157	172	95	70	6	537	436	86	112	1079	352
Added Vol:	0	0	0	0	0	0	0	101	0	0	55	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	28	157	172	95	70	6	537	537	86	112	1134	352
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	29	165	181	100	74	6	565	565	91	118	1193	370
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	165	181	100	74	6	565	565	91	118	1193	370
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	29	165	181	100	74	6	565	565	91	118	1193	370

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.83	0.83	0.93	0.93	0.81	0.90	0.89	0.89	0.90	0.87	0.87
Lanes:	1.00	1.00	1.00	0.58	0.42	1.00	1.00	1.72	0.28	1.00	1.53	0.47
Final Sat.:	1718	1584	1584	1012	747	1537	1718	2900	465	1718	2529	784

Capacity Analysis Module:

Vol/Sat:	0.02	0.10	0.11	0.10	0.10	0.00	0.33	0.19	0.19	0.07	0.47	0.47
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.10	0.10	0.10	0.08	0.08	0.08	0.28	0.51	0.51	0.18	0.40	0.40
Volume/Cap:	0.18	1.07	1.17	1.17	1.17	0.05	1.17	0.38	0.38	0.38	1.17	1.17
Delay/Veh:	50.2	123	160.7	181.8	182	50.6	139.9	18.3	18.3	44.3	121	120.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	50.2	123	160.7	181.8	182	50.6	139.9	18.3	18.3	44.3	121	120.7
DesignQueue:	2	10	11	6	5	0	29	19	3	7	53	17

Uptown Project Traffic Impact Analysis  
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Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #24 Mandela Pkwy/ W. Grand Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.504  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 23.5  
Optimal Cycle: 118 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R

Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	30	0	0	30	0	0	80	0	0	80	0
Lanes:	0	1	0	0	1	0	1	0	1	1	0	1

Volume Module:

Base Vol:	107	144	127	35	132	105	127	332	57	220	604	25
Growth Adj:	1.09	1.09	1.09	1.40	1.40	1.40	1.65	1.65	1.65	1.13	1.13	1.13
Initial Bse:	117	157	138	49	185	147	210	548	94	249	683	28
Added Vol:	0	0	0	0	0	0	0	101	0	0	55	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	117	157	138	49	185	147	210	649	94	249	738	28
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	130	174	154	54	205	163	233	721	104	276	819	31
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	130	174	154	54	205	163	233	721	104	276	819	31
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	130	174	154	54	205	163	233	721	104	276	819	31

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.54	0.54	0.54	0.63	0.63	0.63	0.28	0.89	0.89	0.29	0.90	0.90
Lanes:	0.57	0.76	0.67	0.26	0.97	0.77	1.00	1.75	0.25	1.00	1.93	0.07
Final Sat.:	586	789	695	310	1169	930	526	2945	427	543	3290	126

Capacity Analysis Module:

Vol/Sat:	0.22	0.22	0.22	0.18	0.18	0.18	0.44	0.24	0.24	0.51	0.25	0.25
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.27	0.27	0.27	0.27	0.27	0.27	0.67	0.67	0.67	0.67	0.67	0.67
Volume/Cap:	0.83	0.83	0.83	0.66	0.66	0.66	0.66	0.37	0.37	0.76	0.37	0.37
Delay/Veh:	54.9	54.9	54.9	44.4	44.4	44.4	21.5	9.3	9.3	27.8	9.3	9.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	54.9	54.9	54.9	44.4	44.4	44.4	21.5	9.3	9.3	27.8	9.3	9.3
DesignQueue:	7	9	8	3	10	8	5	17	2	6	19	1

Uptown Project Traffic Impact Analysis  
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Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #25 Northgate Ave./ W. Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.863  
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 52.0  
Optimal Cycle: 86 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R

Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	18	0	18	13	30	0	0	30	0
Lanes:	0	0	0	2	0	0	1	0	2	0	0	1

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	140	0	70	338	737	0	0	647	406
Growth Adj:	1.00	1.00	1.00	1.05	1.05	1.05	1.21	1.21	1.21	1.17	1.17	1.17
Initial Bse:	0	0	0	147	0	74	409	892	0	0	757	475
Added Vol:	0	0	0	48	0	24	24	59	0	0	16	15
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	195	0	98	433	951	0	0	773	490
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	205	0	103	456	1001	0	0	814	516
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	205	0	103	456	1001	0	0	814	516
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	205	0	103	456	1001	0	0	814	516

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.92	1.00	0.72	0.95	0.88	1.00	1.00	0.83	0.83
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	1.22	0.78
Final Sat.:	0	0	0	3502	0	1373	1805	3339	0	0	1925	1220

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.06	0.00	0.07	0.25	0.30	0.00	0.00	0.42	0.42
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.00	0.00	0.23	0.00	0.23	0.23	0.63	0.00	0.00	0.39	0.39
Volume/Cap:	0.00	0.00	0.00	0.26	0.00	0.33	1.08	0.48	0.00	0.00	1.08	1.08
Delay/Veh:	0.0	0.0	0.0	26.3	0.0	28.8	97.7	8.8	0.0	0.0	74.6	74.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	26.3	0.0	28.8	97.7	8.8	0.0	0.0	74.6	74.6
DesignQueue:	0	0	0	7	0	4	17	18	0	0	24	15

Uptown Project Traffic Impact Analysis  
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1997 HCM Operations Method (Future Volume Alternative)

Intersection #26 Webster St./Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.760  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 24.1  
Optimal Cycle: 75 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R

Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	23	0	0	31	0	13	31	0
Lanes:	0	0	0	0	1	0	0	1	0	1	0	1

Volume Module: >> Count Date: 8 Jul 2003 <<

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	80	284	76	14	577	169	95	312	22
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.30	1.30	1.30	1.32	1.32	1.32
Initial Bse:	0	0	0	80	284	76	18	750	220	125	412	29
Added Vol:	0	0	0	0	0	0	0	64	0	0	117	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	80	284	76	18	814	220	125	529	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	0	0	85	303	81	19	868	234	134	564	31
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	85	303	81	19	868	234	134	564	31
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	85	303	81	19	868	234	134	564	31

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.85	0.85	0.72	0.80	0.80	0.80	0.95	0.87	0.87
Lanes:	0.00	0.00	0.00	0.22	0.78	1.00	0.03	1.55	0.42	1.00	1.90	0.10
Final Sat.:	0	0	0	355	1260	1373	53	2349	634	1805	3140	172

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.24	0.24	0.06	0.37	0.37	0.37	0.07	0.18	0.18
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.00	0.00	0.29	0.29	0.29	0.45	0.45	0.45	0.16	0.61	0.61
Volume/Cap:	0.00	0.00	0.00	0.83	0.83	0.20	0.83	0.83	0.83	0.46	0.29	0.29
Delay/Veh:	0.0	0.0	0.0	41.6	41.6	22.5	25.3	25.3	25.3	35.3	7.8	7.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	41.6	41.6	22.5	25.3	25.3	25.3	35.3	7.8	7.8
DesignQueue:	0	0	0	3	10	3	1	23	6	5	10	1

Uptown Project Traffic Impact Analysis  
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Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #27 Harrison St./ Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 1.074  
Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 52.3  
Optimal Cycle: 120 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	2	0	1	1	2	0	1	2	0	1

Volume Module:

Base Vol:	8	1618	738	0	614	73	164	522	172	311	512	105
Growth Adj:	1.09	1.09	1.09	1.19	1.19	1.19	1.32	1.32	1.32	1.13	1.13	1.13
Initial Bse:	9	1764	804	0	731	87	216	689	227	351	579	119
Added Vol:	0	3	0	0	6	23	13	51	0	0	94	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	9	1767	804	0	737	110	229	740	227	351	673	119
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	9	1860	847	0	775	116	242	779	239	370	708	125
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	1860	847	0	775	116	242	779	239	370	708	125
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	9	1860	847	0	775	116	242	779	239	370	708	125

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.28	0.95	0.85	0.91	0.89	0.89	0.92	0.92	0.92	0.92	0.93	0.93
Lanes:	1.00	2.00	1.00	0.00	2.61	0.39	2.00	1.53	0.47	2.00	1.70	0.30
Final Sat.:	530	3610	1615	0	4428	660	3502	2666	818	3502	3001	529

Capacity Analysis Module:

Vol/Sat:	0.02	0.52	0.52	0.00	0.18	0.18	0.07	0.29	0.29	0.11	0.24	0.24
Crit Moves:	****											
Green/Cycle:	0.48	0.48	0.58	0.00	0.48	0.48	0.08	0.27	0.27	0.10	0.29	0.29
Volume/Cap:	0.04	1.07	0.91	0.00	0.37	0.37	0.82	1.07	1.07	1.07	0.82	0.82
Delay/Veh:	11.1	65.4	27.4	0.0	13.2	13.2	52.9	80.4	80.4	105.7	32.2	32.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.1	65.4	27.4	0.0	13.2	13.2	52.9	80.4	80.4	105.7	32.2	32.2
DesignQueue:	0	49	18	0	19	3	10	27	8	15	24	4

Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #28 El Embarcadero / Grand Ave.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.932  
Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 31.2  
Optimal Cycle: 120 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	20	0	0	0	0	0	0	30	0	10	30	0
Lanes:	1	0	0	0	0	0	0	0	2	1	0	2

Volume Module: >> Count Date: 9 Jul 2003 <<

Base Vol:	232	0	223	0	0	0	0	1039	743	301	603	0
Growth Adj:	1.13	1.13	1.13	1.00	1.00	1.00	1.07	1.07	1.07	1.04	1.04	1.04
Initial Bse:	262	0	252	0	0	0	0	1112	795	313	627	0
Added Vol:	58	0	0	0	0	0	0	51	0	0	36	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	320	0	252	0	0	0	0	1163	795	313	663	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	333	0	262	0	0	0	0	1208	826	325	689	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	333	0	262	0	0	0	0	1208	826	325	689	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	333	0	262	0	0	0	0	1208	826	325	689	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	1.00	1.00	1.00	1.00	0.95	0.68	0.95	0.85	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	1805	0	1615	0	0	0	0	3610	1292	1805	3249	0

Capacity Analysis Module:

Vol/Sat:	0.18	0.00	0.16	0.00	0.00	0.00	0.00	0.33	0.64	0.18	0.21	0.00
Crit Moves:	****											
Green/Cycle:	0.20	0.00	0.20	0.00	0.00	0.00	0.00	0.48	0.68	0.20	0.68	0.00
Volume/Cap:	0.92	0.00	0.81	0.00	0.00	0.00	0.00	0.69	0.94	0.91	0.31	0.00
Delay/Veh:	67.7	0.0	52.5	0.0	0.0	0.0	0.0	21.4	31.1	65.9	6.6	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	67.7	0.0	52.5	0.0	0.0	0.0	0.0	21.4	31.1	65.9	6.6	0.0
DesignQueue:	16	0	12	0	0	0	0	38	16	15	13	0

Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #29 MacArthur Blvd./ Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.905  
Loss Time (sec): 12 (Y+R = 8 sec) Average Delay (sec/veh): 34.1  
Optimal Cycle: 99 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Protected Include		
Min. Green:	0	0	0	0	25	0	0	20	0	15	20	0
Lanes:	0	0	0	0	1	1	0	0	2	1	0	3

Volume Module: >> Count Date: 9 Nov 2000 <<

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	278	650	225	0	657	497	239	710	0
Growth Adj:	1.00	1.00	1.00	1.01	1.01	1.01	1.05	1.05	1.05	1.04	1.04	1.04
Initial Bse:	0	0	0	281	657	227	0	690	522	249	738	0
Added Vol:	0	0	0	0	0	0	0	0	51	0	36	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	281	657	227	0	690	573	249	774	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	296	691	239	0	726	603	262	815	0
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	296	691	239	0	726	603	262	815	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	296	691	239	0	726	603	262	815	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.86	0.86	0.86	1.00	0.95	0.85	0.95	0.91	1.00
Lanes:	0.00	0.00	0.00	0.72	1.69	0.59	0.00	2.00	1.00	1.00	3.00	0.00
Final Sat.:	0	0	0	1179	2757	954	0	3610	1615	1805	5187	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.25	0.25	0.25	0.00	0.20	0.37	0.14	0.16	0.00
Crit Moves:	****											
Green/Cycle:	0.00	0.00	0.00	0.31	0.31	0.31	0.00	0.35	0.35	0.19	0.54	0.00
Volume/Cap:	0.00	0.00	0.00	0.80	0.80	0.80	0.00	0.57	1.07	0.77	0.29	0.00
Delay/Veh:	0.0	0.0	0.0	29.8	29.8	29.8	0.0	23.1	82.9	46.6	10.4	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	29.8	29.8	29.8	0.0	23.1	82.9	46.6	10.4	0.0
DesignQueue:	0	0	0	10	22	8	0	22	19	10	17	0

Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #30 MacArthur Blvd./ Lake Shore Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.727  
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 26.3  
Optimal Cycle: 76 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Prot+Permit Include		
Min. Green:	0	0	0	0	22	0	0	30	0	12	30	0
Lanes:	0	0	0	1	1	2	0	0	2	1	0	2

Volume Module: >> Count Date: 9 Jul 2003 <<

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	220	1021	104	0	485	385	320	512	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.11	1.11	1.11	1.00	1.00	1.00
Initial Bse:	0	0	0	220	1021	104	0	538	427	320	512	0
Added Vol:	0	0	0	0	51	0	0	0	0	0	58	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	220	1072	104	0	538	427	320	570	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	0	0	0	239	1162	113	0	584	463	347	618	0
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	239	1162	113	0	584	463	347	618	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	239	1162	113	0	584	463	347	618	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.77	0.77	0.85	1.00	0.95	0.85	0.51	0.95	1.00
Lanes:	0.00	0.00	0.00	1.00	3.00	1.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	1470	4409	1615	0	3610	1615	976	3610	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.16	0.26	0.07	0.00	0.16	0.29	0.36	0.17	0.00
Crit Moves:	****											
Green/Cycle:	0.00	0.00	0.00	0.28	0.28	0.28	0.00	0.38	0.38	0.58	0.58	0.00
Volume/Cap:	0.00	0.00	0.00	0.59	0.96	0.25	0.00	0.43	0.77	0.62	0.30	0.00
Delay/Veh:	0.0	0.0	0.0	25.5	43.4	22.9	0.0	18.9	27.7	12.2	8.8	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	25.5	43.4	22.9	0.0	18.9	27.7	12.2	8.8	0.0
DesignQueue:	0	0	0	8	40	4	0	17	14	13	12	0

Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour

Level Of Service Computation Report

1997 HCM Operations Method (Future Volume Alternative)

Intersection #31 Lake Park Ave./ Lake Shore Ave.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.797  
Loss Time (sec): 16 (Y+R = 12 sec) Average Delay (sec/veh): 41.1  
Optimal Cycle: 82 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	20	20	20	8	0	8	13	25	0	0	25	0
Lanes:	1	0	1	0	0	1	1	0	2	0	0	1

Volume Module: >> Count Date: 17 Jul 2003 <<

Base Vol:	360	456	227	75	0	81	269	459	0	0	336	212
Growth Adj:	1.03	1.03	1.03	1.21	1.21	1.21	1.04	1.04	1.04	1.01	1.01	1.01
Initial Bse:	371	470	234	91	0	98	280	477	0	0	339	214
Added Vol:	58	36	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	429	506	234	91	0	98	280	477	0	0	339	214
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	443	523	242	94	0	101	289	493	0	0	351	221
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	443	523	242	94	0	101	289	493	0	0	351	221
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	443	523	242	94	0	101	289	493	0	0	351	221

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.95	1.00	1.00	0.89	0.89
Lanes:	1.00	1.00	1.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.23	0.77
Final Sat.:	1805	1900	1615	1805	0	1615	1805	3610	0	0	2085	1316

Capacity Analysis Module:

Vol/Sat:	0.25	0.28	0.15	0.05	0.00	0.06	0.16	0.14	0.00	0.00	0.17	0.17
Crit Moves:	****			****			****			****		
Green/Cycle:	0.29	0.29	0.29	0.09	0.00	0.09	0.17	0.45	0.00	0.00	0.28	0.28
Volume/Cap:	0.85	0.96	0.52	0.58	0.00	0.71	0.96	0.31	0.00	0.00	0.61	0.61
Delay/Veh:	43.1	59.0	27.9	44.8	0.0	54.6	76.8	16.1	0.0	0.0	29.3	29.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.1	59.0	27.9	44.8	0.0	54.6	76.8	16.1	0.0	0.0	29.3	29.3
DesignQueue:	17	20	9	4	0	5	13	14	0	0	13	8

Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour

Level Of Service Computation Report

1997 HCM Operations Method (Future Volume Alternative)

Intersection #32 Brush St./ 18th St.

Cycle (sec): 70 Critical Vol./Cap. (X): 0.377  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 10.7  
Optimal Cycle: 61 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	45	0	0	0	0	0	8	0
Lanes:	0	0	0	0	3	1	0	0	0	1	0	0

Volume Module:

Base Vol:	0	0	0	0	1000	84	0	0	0	150	196	0
Growth Adj:	1.00	1.00	1.00	1.03	1.03	1.03	1.00	1.00	1.00	1.06	1.06	1.06
Initial Bse:	0	0	0	0	1030	87	0	0	0	159	208	0
Added Vol:	0	0	0	0	0	0	0	0	0	63	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	1030	87	0	0	0	222	208	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	0	0	1144	96	0	0	0	247	231	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	1144	96	0	0	0	247	231	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	0	1144	96	0	0	0	247	231	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	0.90	0.90	1.00	1.00	1.00	0.85	0.95	1.00
Lanes:	0.00	0.00	0.00	0.00	3.69	0.31	0.00	0.00	0.00	1.00	2.00	0.00
Final Sat.:	0	0	0	0	6304	529	0	0	0	1615	3610	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.00	0.18	0.18	0.00	0.00	0.00	0.15	0.06	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.00	0.00	0.00	0.64	0.64	0.00	0.00	0.00	0.24	0.24	0.00
Volume/Cap:	0.00	0.00	0.00	0.00	0.28	0.28	0.00	0.00	0.00	0.63	0.26	0.00
Delay/Veh:	0.0	0.0	0.0	0.0	5.5	5.5	0.0	0.0	0.0	26.9	21.6	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	0.0	5.5	5.5	0.0	0.0	0.0	26.9	21.6	0.0
DesignQueue:	0	0	0	0	17	1	0	0	0	8	7	0

Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #33 18th St./ Castro St.  
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Cycle (sec): 40 Critical Vol./Cap. (X): 0.906  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 57.6  
Optimal Cycle: 64 Level Of Service: E

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Min. Green:	0	20	0	0	0	0	0	0	0	0	13	0
Lanes:	1	1	3	0	0	0	0	0	0	0	0	1

Volume Module:

Base Vol:	212	1698	0	0	0	0	0	0	0	0	115	737
Growth Adj:	1.03	1.03	1.03	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Initial Bse:	218	1749	0	0	0	0	0	0	0	0	153	980
Added Vol:	0	0	0	0	0	0	0	0	0	0	63	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	218	1749	0	0	0	0	0	0	0	0	216	980
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	243	1943	0	0	0	0	0	0	0	0	240	1089
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	243	1943	0	0	0	0	0	0	0	0	240	1089
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	243	1943	0	0	0	0	0	0	0	0	240	1089

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.77	0.77	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88
Lanes:	1.00	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36	1.64
Final Sat.:	1470	5879	0	0	0	0	0	0	0	0	602	2731

Capacity Analysis Module:

Vol/Sat:	0.17	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.40
Crit Moves:	****											
Green/Cycle:	0.49	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.32
Volume/Cap:	0.34	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.26	1.26
Delay/Veh:	6.6	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	138	137.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	6.6	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	138	137.8
DesignQueue:	3	24	0	0	0	0	0	0	0	0	4	19

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Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #34 MLK Jr. Way/ 18th St.  
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Cycle (sec): 60 Critical Vol./Cap. (X): 0.470  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 14.2  
Optimal Cycle: 62 Level Of Service: B

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Min. Green:	0	27	0	0	27	0	0	0	0	0	27	0
Lanes:	0	1	1	0	0	1	0	0	0	1	0	2

Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol:	63	134	0	0	182	133	0	0	0	18	725	0
Growth Adj:	1.08	1.08	1.08	1.11	1.11	1.11	1.00	1.00	1.00	1.66	1.66	1.66
Initial Bse:	68	145	0	0	202	148	0	0	0	30	1204	0
Added Vol:	0	0	0	0	0	0	0	0	0	4	63	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	68	145	0	0	202	148	0	0	0	34	1267	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	76	161	0	0	224	164	0	0	0	38	1407	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	76	161	0	0	224	164	0	0	0	38	1407	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	76	161	0	0	224	164	0	0	0	38	1407	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.67	0.67	1.00	1.00	0.82	0.82	1.00	1.00	1.00	1.00	0.86	0.91
Lanes:	0.64	1.36	0.00	0.00	1.16	0.84	0.00	0.00	0.00	1.00	3.00	0.00
Final Sat.:	817	1738	0	0	1808	1321	0	0	0	1900	4928	0

Capacity Analysis Module:

Vol/Sat:	0.09	0.09	0.00	0.00	0.12	0.12	0.00	0.00	0.00	0.02	0.29	0.00
Crit Moves:	****											
Green/Cycle:	0.44	0.44	0.00	0.00	0.44	0.44	0.00	0.00	0.00	0.44	0.44	0.00
Volume/Cap:	0.21	0.21	0.00	0.00	0.29	0.29	0.00	0.00	0.00	0.05	0.66	0.00
Delay/Veh:	11.3	11.3	0.0	0.0	11.8	11.8	0.0	0.0	0.0	10.2	15.4	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.3	11.3	0.0	0.0	11.8	11.8	0.0	0.0	0.0	10.2	15.4	0.0
DesignQueue:	1	3	0	0	4	3	0	0	0	1	29	0

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Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #35 Brush St. / 17th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.397  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 10.6  
Optimal Cycle: 48 Level Of Service: B

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R

Control:	Permitted Include	Permitted Include	Permitted Include	Permitted Include
Min. Green:	0 0 0 0	0 35 0	0 5 0	0 0 0 0
Lanes:	0 0 0 0	1 1 2 0	0 1 1 0	0 0 0 0

Volume Module:

Base Vol:	0 0 0	759 394	0 0 245	179	0 0 0
Growth Adj:	1.00 1.00 1.00	1.04 1.04	1.04 1.12 1.12	1.12	1.00 1.00 1.00
Initial Bse:	0 0 0	789 410	0 0 274	200	0 0 0
Added Vol:	0 0 0	0 63	0 0 29	0	0 0 0
PasserByVol:	0 0 0	0 0	0 0 0	0	0 0 0
Initial Fut:	0 0 0	789 473	0 0 303	200	0 0 0
User Adj:	1.00 1.00 1.00	1.00 1.00	1.00 1.00 1.00	1.00	1.00 1.00 1.00
PHF Adj:	0.90 0.90 0.90	0.90 0.90	0.90 0.90 0.90	0.90	0.90 0.90 0.90
PHF Volume:	0 0 0	877 525	0 0 337	223	0 0 0
Reduct Vol:	0 0 0	0 0	0 0 0	0	0 0 0
Reduced Vol:	0 0 0	877 525	0 0 337	223	0 0 0
PCE Adj:	1.00 1.00 1.00	1.00 1.00	1.00 1.00 1.00	1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00	1.00 1.00 1.00	1.00	1.00 1.00 1.00
Final Vol.:	0 0 0	877 525	0 0 337	223	0 0 0

Saturation Flow Module:

Sat/Lane:	1900 1900	1900 1900	1900 1900	1900 1900	1900 1900
Adjustment:	1.00 1.00	1.00 0.77	0.77 1.00	1.00 0.89	0.89 1.00
Lanes:	0.00 0.00	0.00 2.00	2.00 0.00	0.00 1.20	0.80 0.00
Final Sat.:	0 0	0 2939	2939 0	0 2043	1350 0

Capacity Analysis Module:

Vol/Sat:	0.00 0.00	0.00 0.30	0.18 0.00	0.00 0.16	0.16 0.00
Crit Moves:	0.00 0.00	0.00 0.58	0.58 0.00	0.00 0.28	0.28 0.00
Green/Cycle:	0.00 0.00	0.00 0.51	0.31 0.00	0.00 0.58	0.58 0.00
Volume/Cap:	0.00 0.00	0.00 7.6	6.4 0.00	0.00 19.4	19.4 0.00
Delay/Veh:	0.0 0.0	0.0 35.7	35.7 0.0	0.0 29.3	29.8 0.0
User DelAdj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
AdjDel/Veh:	0.0 0.0	0.0 7.6	6.4 0.0	0.0 19.4	19.4 0.0
DesignQueue:	0 0	0 13	8 0	0 8	6 0

Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #36 17th St / Castro St / I-980-Off-Ramp

Cycle (sec): 85 Critical Vol./Cap. (X): 0.783  
Loss Time (sec): 12 (Y+R = 6 sec) Average Delay (sec/veh): 31.5  
Optimal Cycle: 70 Level Of Service: C

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R

Control:	Permitted Include	Permitted Include	Split Phase Include	Split Phase Include
Min. Green:	0 10 0	0 0 0	0 20 0	0 20 0
Lanes:	0 0 1 1	0 0 0 0	1 0 3 0	0 0 2 1

Volume Module:

Base Vol:	0 645	31	0 0	0 216	707	0	0 1371	68
Growth Adj:	1.14 1.14	1.14	1.00 1.00	1.00 1.00	1.00	1.00	1.03 1.03	1.03
Initial Bse:	0 735	35	0 0	0 216	707	0	0 1412	70
Added Vol:	0 0	87	0 0	0 0	29	0	0 0	0
PasserByVol:	0 0	0	0 0	0 0	0	0	0 0	0
Initial Fut:	0 735	122	0 0	0 216	736	0	0 1412	70
User Adj:	0.90 0.90	0.90	0.90 0.90	0.90 0.90	0.90	0.90	0.90 0.90	0.90
PHF Adj:	0.90 0.90	0.90	0.90 0.90	0.90 0.90	0.90	0.90	0.90 0.90	0.90
PHF Volume:	0 735	122	0 0	0 216	736	0	0 1412	70
Reduct Vol:	0 0	0	0 0	0 0	0	0	0 0	0
Reduced Vol:	0 735	122	0 0	0 216	736	0	0 1412	70
PCE Adj:	1.00 1.00	1.00	1.00 1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00
MLF Adj:	1.00 1.00	1.00	1.00 1.00	1.00 1.00	1.00	1.00	1.00 1.00	1.00
Final Vol.:	0 735	122	0 0	0 216	736	0	0 1412	70

Saturation Flow Module:

Sat/Lane:	1900 1900	1900 1900	1900 1900	1900 1900	1900 1900
Adjustment:	1.00 0.93	0.93 1.00	1.00 1.00	1.00 0.95	0.91 1.00
Lanes:	0.00 1.71	0.29 0.00	0.00 0.00	0.00 1.00	3.00 0.00
Final Sat.:	0 3030	504	0 0	0 1805	5187

Capacity Analysis Module:

Vol/Sat:	0.00 0.24	0.24 0.00	0.00 0.00	0.12 0.14	0.14 0.00
Crit Moves:	0.00 0.29	0.29 0.00	0.00 0.00	0.24 0.24	0.00 0.00
Green/Cycle:	0.00 0.85	0.85 0.00	0.00 0.00	0.51 0.60	0.00 0.00
Volume/Cap:	0.0 35.7	35.7 0.0	0.0 0.0	0.0 29.3	29.8 0.0
Delay/Veh:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
User DelAdj:	0.0 35.7	35.7 0.0	0.0 0.0	0.0 29.3	29.8 0.0
AdjDel/Veh:	0 26	4 0	0 0	0 8	28 0
DesignQueue:	0 26	4 0	0 0	0 8	28 0

Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #37 MLK Jr. Way/ 17th St  
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Cycle (sec): 60 Critical Vol./Cap. (X): 0.252  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 11.0  
Optimal Cycle: 58 Level Of Service: B

Approach: Movement:	North Bound			South Bound			East Bound			West Bound		
	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Rights:	0 25 0			0 25 0			0 25 0			0 0 0		
Min. Green:	0 25 0			0 25 0			0 25 0			0 0 0		
Lanes:	0 0 1 1 0			0 1 1 0 0			0 1 2 1 0			0 0 0 0 0		

Volume Module: >> Count Date: 8 Jul 2003 <<

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	170	29	21	191	0	10	478	45	0	0	0
Growth Adj:	1.35	1.35	1.35	1.23	1.23	1.23	1.10	1.10	1.10	1.00	1.00	1.00
Initial Bse:	0	230	39	26	235	0	11	526	50	0	0	0
Added Vol:	0	0	7	0	4	0	0	115	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	230	46	26	239	0	11	641	50	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	255	51	29	265	0	12	712	55	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	255	51	29	265	0	12	712	55	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	255	51	29	265	0	12	712	55	0	0	0

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	1.00	0.93	0.93	0.79	0.79	1.00	0.86	0.86	0.86	1.00	1.00	1.00
Lanes:	0.00	1.67	0.33	0.20	1.80	0.00	0.06	3.66	0.28	0.00	0.00	0.00
Final Sat.:	0	2930	589	292	2700	0	102	5949	460	0	0	0

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	0.00 0.09 0.09			0.10 0.10 0.00			0.12 0.12 0.12			0.00 0.00 0.00		
Green/Cycle:	0.00	0.42	0.42	0.42	0.42	0.00	0.45	0.45	0.45	0.00	0.00	0.00
Volume/Cap:	0.00	0.21	0.21	0.24	0.24	0.00	0.27	0.27	0.27	0.00	0.00	0.00
Delay/Veh:	0.0	11.5	11.5	11.8	11.8	0.0	10.5	10.5	10.5	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	11.5	11.5	11.8	11.8	0.0	10.5	10.5	10.5	0.0	0.0	0.0
DesignQueue:	0	5	1	5	0	0	13	1	0	0	0	0

Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #38 Jefferson St./ 17th St.  
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Cycle (sec): 60 Critical Vol./Cap. (X): 0.245  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 10.6  
Optimal Cycle: 59 Level Of Service: B

Approach: Movement:	North Bound			South Bound			East Bound			West Bound		
	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Rights:	0 25 0			0 25 0			0 26 0			0 0 0		
Min. Green:	0 25 0			0 25 0			0 1 2 1 0			0 0 0 0 0		
Lanes:	0 0 1 1 0			0 1 1 0 0			0 1 2 1 0			0 0 0 0 0		

Volume Module: >> Count Date: 8 Jul 2003 <<

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	157	52	7	57	0	24	429	44	0	0	0
Growth Adj:	1.35	1.35	1.35	1.79	1.79	1.79	1.11	1.11	1.11	1.00	1.00	1.00
Initial Bse:	0	212	70	13	102	0	27	476	49	0	0	0
Added Vol:	0	0	0	0	0	0	0	123	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	212	70	13	102	0	27	599	49	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	236	78	14	113	0	30	666	54	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	236	78	14	113	0	30	666	54	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	236	78	14	113	0	30	666	54	0	0	0

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	1.00	0.85	0.85	0.79	0.79	1.00	0.86	0.86	0.86	1.00	1.00	1.00
Lanes:	0.00	1.50	0.50	0.22	1.78	0.00	0.16	3.55	0.29	0.00	0.00	0.00
Final Sat.:	0	2416	800	330	2686	0	257	5783	471	0	0	0

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	0.00 0.10 0.10			0.04 0.04 0.00			0.12 0.12 0.12			0.00 0.00 0.00		
Green/Cycle:	0.00	0.42	0.42	0.42	0.42	0.00	0.45	0.45	0.45	0.00	0.00	0.00
Volume/Cap:	0.00	0.23	0.23	0.10	0.10	0.00	0.26	0.26	0.26	0.00	0.00	0.00
Delay/Veh:	0.0	11.4	11.4	10.7	10.7	0.0	10.3	10.3	10.3	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	11.4	11.4	10.7	10.7	0.0	10.3	10.3	10.3	0.0	0.0	0.0
DesignQueue:	0	5	2	0	2	0	1	13	1	0	0	0



Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #39 Franklin St./ 17th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.517  
Loss Time (sec): 8 (Y+R = 7 sec) Average Delay (sec/veh): 30.0  
Optimal Cycle: 45 Level Of Service: C

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 8 Jul 2003 <<  
Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module:  
Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:  
Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #40 Webster St./ 17th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.520  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 12.2  
Optimal Cycle: 47 Level Of Service: B

Table with columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 8 Jul 2003 <<  
Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module:  
Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:  
Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis
Year 2025 No Project - AM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #1 San Pablo Ave./ 31st St.
Cycle (sec): 75 Critical Vol./Cap. (X): 0.432
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 10.4
Optimal Cycle: 75 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Protected Protected
Rights: Include Include Include Include
Min. Green: 0 45 0 0 45 0 0 0 0 22 0 0 22
Lanes: 0 1 1 0 0 1 0 2 0 0 0 0 0 0 1
Volume Module: >> Count Date: 9 Jul 2003 <<
Base Vol: 0 416 0 15 451 0 0 0 0 137 0 7
Growth Adj: 1.58 1.58 1.58 2.17 2.17 2.17 1.00 1.00 1.00 1.18 1.18 1.18
Initial Bse: 0 657 0 33 979 0 0 0 0 162 0 8
Added Vol: 0 2 0 0 1 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 659 0 33 980 0 0 0 0 162 0 8
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 733 0 36 1089 0 0 0 0 180 0 9
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 733 0 36 1089 0 0 0 0 180 0 9
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 733 0 36 1089 0 0 0 0 180 0 9
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.85 1.00 0.33 0.85 1.00 1.00 1.00 1.00 0.92 1.00 0.68
Lanes: 0.00 2.00 0.00 1.00 2.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
Final Sat.: 0 3249 0 631 3249 0 0 0 0 3502 0 1292
Capacity Analysis Module:
Vol/Sat: 0.00 0.23 0.00 0.06 0.34 0.00 0.00 0.00 0.00 0.05 0.00 0.01
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.60 0.00 0.60 0.60 0.00 0.00 0.00 0.00 0.29 0.00 0.29
Volume/Cap: 0.00 0.38 0.00 0.10 0.56 0.00 0.00 0.00 0.00 0.17 0.00 0.02
Delay/Veh: 0.0 8.3 0.0 6.9 10.2 0.0 0.0 0.0 0.0 20.1 0.0 19.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 8.3 0.0 6.9 10.2 0.0 0.0 0.0 0.0 20.1 0.0 19.0
DesignQueue: 0 13 0 1 20 0 0 0 0 5 0 0

Uptown Project Traffic Impact Analysis
Year 2025 No Project - AM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #2 San Pablo Ave./ Market St.
Cycle (sec): 75 Critical Vol./Cap. (X): 0.316
Loss Time (sec): 8 (Y+R = 10 sec) Average Delay (sec/veh): 10.3
Optimal Cycle: 73 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 43 0 0 43 0 0 22 0 0 0 0 0
Lanes: 0 0 1 1 0 0 0 1 1 0 0 1 0 1 0 0 0 0 0 0
Volume Module: >> Count Date: 9 Jul 2003 <<
Base Vol: 0 408 0 0 476 131 67 75 3 0 0 0 0
Growth Adj: 1.06 1.06 1.06 1.01 1.01 1.01 1.73 1.73 1.73 1.57 1.57 1.57
Initial Bse: 0 432 0 0 481 132 116 130 5 0 0 0 0
Added Vol: 0 2 0 0 1 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 434 0 0 482 132 116 130 5 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94
PHF Volume: 0 461 0 0 512 141 123 138 6 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 461 0 0 512 141 123 138 6 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 461 0 0 512 141 123 138 6 0 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.88 0.95 1.00 0.85 0.85 0.87 0.87 0.87 1.00 1.00 1.00
Lanes: 0.00 2.00 0.00 0.00 1.57 0.43 0.92 1.04 0.04 0.00 0.00 0.00
Final Sat.: 0 3339 0 0 2536 696 1534 1717 69 0 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.14 0.00 0.00 0.20 0.20 0.08 0.08 0.08 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.60 0.00 0.00 0.60 0.60 0.29 0.29 0.29 0.00 0.00 0.00
Volume/Cap: 0.00 0.23 0.00 0.00 0.34 0.34 0.27 0.27 0.27 0.00 0.00 0.00
Delay/Veh: 0.0 7.2 0.0 0.0 8.0 8.0 21.1 21.1 21.1 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 7.2 0.0 0.0 8.0 8.0 21.1 21.1 21.1 0.0 0.0 0.0
DesignQueue: 0 8 0 0 9 2 4 4 0 0 0 0

Uptown Project Traffic Impact Analysis
Year 2025 No Project - AM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #3 San Pablo Ave. / 27th

Cycle (sec): 75 Critical Vol./Cap. (X): 0.372
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 11.0
Optimal Cycle: 75 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 45 0 0 45 0 0 22 0 0 22 0
Lanes: 0 1 0 1 0 1 0 1 0 0 1 0 1

Volume Module: >> Count Date: 1 Jan 2003 <<
Base Vol: 19 413 7 119 611 3 1 21 24 32 12 110
Growth Adj: 1.43 1.43 1.43 1.53 1.53 1.53 1.31 1.31 1.31 1.38 1.38 1.38
Initial Bse: 27 591 10 182 935 5 1 28 31 44 17 152
Added Vol: 0 2 0 0 1 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 27 593 10 182 936 5 1 28 31 44 17 152
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 30 658 11 202 1040 5 1 31 35 49 18 169
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 30 658 11 202 1040 5 1 31 35 49 18 169
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 30 658 11 202 1040 5 1 31 35 49 18 169

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.83 0.83 0.83 0.35 0.95 0.95 0.83 0.83 0.83 0.76 1.00 0.85
Lanes: 0.09 1.88 0.03 1.00 1.99 0.01 0.02 0.46 0.52 1.00 1.00 1.00
Final Sat.: 136 2976 50 659 3589 18 34 717 819 1440 1900 1615

Capacity Analysis Module:
Vol/Sat: 0.22 0.22 0.22 0.31 0.29 0.29 0.04 0.04 0.04 0.03 0.01 0.10
Crit Moves:
Green/Cycle: 0.60 0.60 0.60 0.60 0.60 0.60 0.29 0.29 0.29 0.29 0.29 0.29
Volume/Cap: 0.37 0.37 0.37 0.51 0.48 0.48 0.15 0.15 0.15 0.12 0.03 0.36
Delay/Veh: 8.3 8.3 8.3 13.3 9.2 9.2 20.2 20.2 20.2 19.9 19.0 23.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 8.3 8.3 8.3 13.3 9.2 9.2 20.2 20.2 20.2 19.9 19.0 23.0
DesignQueue: 1 12 0 3 19 0 0 1 1 1 1 5

Uptown Project Traffic Impact Analysis
Year 2025 No Project - AM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #4 San Pablo Ave./ West St./25th St

Cycle (sec): 80 Critical Vol./Cap. (X): 0.362
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 21.2
Optimal Cycle: 83 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 32 0 0 32 0 22 22 22 17 0 17
Lanes: 0 1 0 1 0 0 1 0 1 0 0 0 1

Volume Module: >> Count Date: 9 Jul 2003 <<
Base Vol: 0 358 66 12 426 0 30 0 7 48 0 73
Growth Adj: 1.03 1.03 1.03 1.32 1.32 1.32 1.80 1.80 1.80 1.42 1.42 1.42
Initial Bse: 0 369 68 16 562 0 54 0 13 68 0 104
Added Vol: 0 3 1 0 1 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 372 69 16 563 0 54 0 13 68 0 104
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91
PHF Volume: 0 410 76 17 621 0 59 0 14 75 0 114
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 410 76 17 621 0 59 0 14 75 0 114
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 410 76 17 621 0 59 0 14 75 0 114

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.83 0.83 0.80 0.80 0.95 0.67 1.00 0.67 0.95 1.00 0.68
Lanes: 0.00 1.69 0.31 0.05 1.95 0.00 0.81 0.00 0.19 1.00 0.00 1.00
Final Sat.: 0 2675 496 83 2948 0 1035 0 242 1805 0 1292

Capacity Analysis Module:
Vol/Sat: 0.00 0.15 0.15 0.21 0.21 0.00 0.06 0.00 0.06 0.04 0.00 0.09
Crit Moves:
Green/Cycle: 0.00 0.39 0.39 0.39 0.39 0.00 0.27 0.00 0.27 0.20 0.00 0.20
Volume/Cap: 0.00 0.40 0.40 0.55 0.55 0.00 0.22 0.00 0.22 0.20 0.00 0.43
Delay/Veh: 0.0 18.7 18.7 20.4 20.4 0.0 24.1 0.0 24.1 27.7 0.0 29.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 18.7 18.7 20.4 20.4 0.0 24.1 0.0 24.1 27.7 0.0 29.9
DesignQueue: 0 12 2 1 18 0 2 0 0 3 0 4

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - AM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #5 San Pablo Ave./ Grand Ave  
\*\*\*\*\*

Cycle (sec): 80 Critical Vol./Cap. (X): 0.639  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 19.4  
Optimal Cycle: 80 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Rights:												
Min. Green:	0	35	0	0	35	0	0	37	0	0	37	0
Lanes:	1	0	1	1	0	1	1	0	2	0	1	1

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	56	306	29	91	377	10	6	442	35	8	747	44
Growth Adj:	1.34	1.34	1.34	1.47	1.47	1.47	1.17	1.17	1.17	1.70	1.70	1.70
Initial Bse:	75	410	39	134	554	15	7	517	41	14	1270	75
Added Vol:	4	4	2	0	1	0	0	0	2	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	79	414	41	134	555	15	7	517	43	15	1270	75
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	83	436	43	141	584	15	7	544	45	15	1337	79
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	83	436	43	141	584	15	7	544	45	15	1337	79
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	83	436	43	141	584	15	7	544	45	15	1337	79

Saturation Flow Module:

	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.35	0.87	0.87	0.43	0.88	0.88	0.11	0.95	0.72	0.90	0.90	0.72
Lanes:	1.00	1.82	0.18	1.00	1.95	0.05	1.00	2.00	1.00	0.02	1.98	1.00
Final Sat.:	671	3000	296	815	3240	86	205	3610	1373	39	3383	1373

Capacity Analysis Module:

	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.12	0.15	0.15	0.17	0.18	0.18	0.04	0.15	0.03	0.40	0.40	0.06
Crit Moves:	****											
Green/Cycle:	0.44	0.44	0.44	0.44	0.44	0.44	0.46	0.46	0.46	0.46	0.46	0.46
Volume/Cap:	0.28	0.33	0.33	0.39	0.41	0.41	0.08	0.33	0.07	0.85	0.85	0.12
Delay/Veh:	16.9	15.4	15.4	18.6	16.3	16.3	13.6	14.1	12.2	25.2	25.2	12.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	16.9	15.4	15.4	18.6	16.3	16.3	13.6	14.1	12.2	25.2	25.2	12.7
DesignQueue:	2	11	1	4	15	0	1	4	14	1	0	35

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - AM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #6 San Pablo Ave./ 20th St.  
\*\*\*\*\*

Cycle (sec): 90 Critical Vol./Cap. (X): 0.269  
Loss Time (sec): 12 (Y+R = 25 sec) Average Delay (sec/veh): 18.0  
Optimal Cycle: 87 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Ignore			Permitted Include			Permitted Include		
Rights:												
Min. Green:	0	35	0	0	35	0	0	40	0	0	40	0
Lanes:	1	0	1	1	0	1	0	1	0	1	0	1

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	5	215	26	47	348	207	62	15	13	4	25	19
Growth Adj:	1.09	1.09	1.09	1.11	1.11	1.11	1.00	1.00	1.00	1.44	1.44	1.44
Initial Bse:	5	234	28	52	386	230	62	15	13	6	36	27
Added Vol:	0	0	3	4	0	0	0	0	0	6	0	10
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	5	234	31	56	386	230	62	15	13	12	36	37
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.84	0.84	0.84	0.93	0.93	0.00	0.87	0.87	0.87	0.90	0.90	0.90
PHF Volume:	6	279	37	60	415	0	71	17	15	13	40	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	279	37	60	415	0	71	17	15	13	40	42
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	6	279	37	60	415	0	71	17	15	13	40	42

Saturation Flow Module:

	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.51	0.83	0.83	0.47	0.95	1.00	0.62	0.62	0.62	0.74	0.74	0.74
Lanes:	1.00	0.88	0.12	1.00	2.00	1.00	1.00	0.54	0.46	0.28	0.84	0.88
Final Sat.:	963	1399	187	895	3610	1900	1176	630	546	386	1182	1227

Capacity Analysis Module:

	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.01	0.20	0.20	0.07	0.12	0.00	0.06	0.03	0.03	0.03	0.03	0.03
Crit Moves:	****											
Green/Cycle:	0.42	0.42	0.42	0.42	0.42	0.00	0.44	0.44	0.44	0.44	0.44	0.44
Volume/Cap:	0.02	0.47	0.47	0.16	0.27	0.00	0.14	0.06	0.06	0.08	0.08	0.08
Delay/Veh:	15.2	21.1	21.1	17.0	17.4	0.0	15.2	14.4	14.4	14.5	14.5	14.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	15.2	21.1	21.1	17.0	17.4	0.0	15.2	14.4	14.4	14.5	14.5	14.5
DesignQueue:	0	8	1	2	12	0	2	0	0	0	1	1

Uptown Project Traffic Impact Analysis
Year 2025 No Project - AM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Unsignalized Method (Future Volume Alternative)
Intersection #7 San Pablo / Williams
Average Delay (sec/veh): 0.1 Worst Case Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Volume Module: >> Count Date: 30 Jul 2003 <<
Base Vol: 0 220 0 0 365 0 0 0 0 0 0 0 0 8
Growth Adj: 1.29 1.29 1.29 1.18 1.18 1.18 1.00 1.00 1.00 1.00 1.00 1.00 1.00 8
Initial Bse: 0 284 0 0 431 0 0 0 0 0 0 0 0 8
Added Vol: 0 3 0 0 6 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 287 0 0 437 0 0 0 0 0 0 0 0 8
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 319 0 0 485 0 0 0 0 0 0 0 0 9
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 319 0 0 485 0 0 0 0 0 0 0 0 9
Critical Gap Module:
Critical Gp: 6.2
FollowUpTim: 3.3
Capacity Module:
Cnflct Vol: 319
Potent Cap.: 727
Move Cap.: 727
Level Of Service Module:
Stopped Del: 10.0
LOS by Move: B
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.:
Shrd StpDel:
Shared LOS:
ApproachDel: 10.0
ApproachLOS: B

Uptown Project Traffic Impact Analysis
Year 2025 No Project - AM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #8 San Pablo Ave./ 19th St.
Cycle (sec): 75 Critical Vol./Cap. (X): 0.280
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 20.0
Optimal Cycle: 74 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 25 0 0 25 0 12 0 12 0 25 0
Lanes: 1 0 1 0 0 0 0 2 0 1 0 0 1 0 0 0 1 0 1 0
Volume Module:
Base Vol: 17 123 0 0 227 75 82 0 3 40 106 60
Growth Adj: 1.29 1.29 1.29 1.18 1.18 1.18 1.00 1.00 1.00 1.14 1.14 1.14
Initial Bse: 22 159 0 0 268 89 82 0 3 46 121 68
Added Vol: 0 2 0 0 1 5 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 22 161 0 0 269 94 82 0 3 46 121 68
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 22 161 0 0 269 94 82 0 3 46 121 68
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 22 161 0 0 269 94 82 0 3 46 121 68
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 22 161 0 0 269 94 82 0 3 46 121 68
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.59 0.85 1.00 1.00 0.95 0.72 0.73 1.00 0.73 0.83 0.83 0.83
Lanes: 1.00 1.00 0.00 0.00 2.00 1.00 0.96 0.00 0.04 0.39 1.03 0.58
Final Sat.: 1113 1615 0 0 3610 1373 1330 0 49 614 1626 921
Capacity Analysis Module:
Vol/Sat: 0.02 0.10 0.00 0.00 0.07 0.07 0.06 0.00 0.06 0.07 0.07 0.07
Crit Moves: \*\*\*\*
Green/Cycle: 0.33 0.33 0.00 0.00 0.33 0.33 0.17 0.00 0.17 0.33 0.33 0.33
Volume/Cap: 0.06 0.30 0.00 0.00 0.22 0.20 0.36 0.00 0.36 0.22 0.22 0.22
Delay/Veh: 17.3 19.9 0.0 0.0 18.4 18.9 31.4 0.0 31.4 18.5 18.5 18.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 17.3 19.9 0.0 0.0 18.4 18.9 31.4 0.0 31.4 18.5 18.5 18.5
DesignQueue: 1 5 0 0 8 3 3 0 0 1 3 2

Uptown Project Traffic Impact Analysis
Year 2025 No Project - AM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Unsignalized Method (Future Volume Alternative)
Intersection #9 San Pablo / 18th
Average Delay (sec/veh): 2.9 Worst Case Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 0 1 0 0 1 1 0 0 0 0 0 0 1! 0 0 0 0 1! 0 0

Uptown Project Traffic Impact Analysis
Year 2025 No Project - AM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #10 San Pablo /17th/Clay
Cycle (sec): 80 Critical Vol./Cap. (X): 0.361
Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 20.2
Optimal Cycle: 62 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Split Phase Split Phase
Rights: Include Include Include Include
Lanes: 0 0 0 1 0 0 1 0 0 1 1 0 1 2 0 1 0 0 1 0 1

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - AM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #11 Telegraph Ave./ W Grand Ave.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.957  
Loss Time (sec): 12 (Y+R = 6 sec) Average Delay (sec/veh): 57.3  
Optimal Cycle: 97 Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	20	0	0	20	0	0	15	0	0	15	0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:

Base Vol:	77	225	21	64	339	70	107	779	300	99	515	41
Growth Adj:	1.84	1.84	1.84	1.21	1.21	1.21	1.26	1.26	1.26	1.75	1.75	1.75
Initial Bse:	142	414	39	77	410	85	135	982	378	173	901	72
Added Vol:	2	1	6	0	0	0	0	0	1	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	144	415	45	77	410	85	135	982	379	175	901	72
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	151	437	47	82	432	89	142	1033	399	184	949	76
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	151	437	47	82	432	89	142	1033	399	184	949	76
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	151	437	47	82	432	89	142	1033	399	184	949	76

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.44	0.94	0.94	0.43	0.93	0.93	0.18	0.91	0.91	0.18	0.94	0.94
Lanes:	1.00	1.81	0.19	1.00	1.66	0.34	1.00	1.44	0.56	1.00	1.85	0.15
Final Sat.:	843	3211	345	825	2914	602	346	2495	963	346	3307	263

Capacity Analysis Module:

Vol/Sat:	0.18	0.14	0.14	0.10	0.15	0.15	0.41	0.41	0.41	0.53	0.29	0.29
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.43	0.43	0.43	0.33	0.33	0.33	0.37	0.37	0.37	0.37	0.37	0.37
Volume/Cap:	0.41	0.31	0.31	0.30	0.44	0.44	1.12	1.13	1.13	1.45	0.78	0.78
Delay/Veh:	11.8	11.3	11.3	15.4	15.9	15.9	134.5	87.7	87.7	261.9	20.0	20.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.8	11.3	11.3	15.4	15.9	15.9	134.5	87.7	87.7	261.9	20.0	20.0
DesignQueue:	5	9	1	2	10	2	3	24	9	4	22	2

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - AM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #12 Telegraph Ave./ 20th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.902  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 76.1  
Optimal Cycle: 68 Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	17	0	0	17	0	0	22	0	0	22	0
Lanes:	1	0	1	1	0	1	0	1	0	1	0	1

Volume Module:

Base Vol:	25	313	26	197	419	73	15	66	34	60	148	77
Growth Adj:	1.63	1.63	1.63	1.36	1.36	1.36	1.11	1.11	1.11	1.00	1.00	1.00
Initial Bse:	41	510	42	268	570	99	17	73	38	60	148	77
Added Vol:	2	0	0	0	0	3	0	2	5	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	43	510	42	268	570	102	17	75	43	60	149	77
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.94	0.94	0.94	0.90	0.90	0.90	0.93	0.93	0.93
PHF Volume:	46	549	46	285	606	109	19	84	47	65	160	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	46	549	46	285	606	109	19	84	47	65	160	83
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	46	549	46	285	606	109	19	84	47	65	160	83

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.31	0.84	0.84	0.24	0.86	0.86	0.76	0.76	0.76	0.73	0.73	0.73
Lanes:	1.00	0.92	0.08	1.00	1.70	0.30	0.25	1.12	0.63	0.42	1.04	0.54
Final Sat.:	585	1473	122	447	2766	496	355	1606	912	586	1455	752

Capacity Analysis Module:

Vol/Sat:	0.08	0.37	0.37	0.64	0.22	0.22	0.05	0.05	0.05	0.11	0.11	0.11
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.36	0.36	0.36	0.36	0.36	0.36	0.47	0.47	0.47	0.47	0.47	0.47
Volume/Cap:	0.22	1.03	1.03	1.76	0.61	0.61	0.11	0.11	0.11	0.24	0.24	0.24
Delay/Veh:	12.7	60.2	60.2	383.2	14.6	14.6	7.2	7.2	7.2	7.9	7.9	7.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.7	60.2	60.2	383.2	14.6	14.6	7.2	7.2	7.2	7.9	7.9	7.9
DesignQueue:	1	10	1	5	11	2	0	1	1	1	2	1

Uptown Project Traffic Impact Analysis
Year 2025 No Project - AM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #13 Telegraph / Williams

Cycle (sec): 45 Critical Vol./Cap. (X): 0.808
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 44.0
Optimal Cycle: 51 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 10 0 10 0 0 0 0
Lanes: 1 0 1 0 0 0 0 0 1 0 0 0 0 0 0 0

Volume Module: >> Count Date: 30 Jul 2003 <<
Base Vol: 34 370 0 0 350 172 1 0 1 0 0 0 0
Growth Adj: 1.63 1.63 1.63 1.57 1.57 1.57 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 55 603 0 0 550 270 1 0 1 0 0 0 0
Added Vol: 0 2 0 0 0 5 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 55 605 0 0 555 270 1 0 1 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 62 672 0 0 616 300 1 0 1 0 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 62 672 0 0 616 300 1 0 1 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 62 672 0 0 616 300 1 0 1 0 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.55 0.85 1.00 1.00 0.73 0.73 0.77 1.00 0.77 1.00 1.00 1.00
Lanes: 1.00 1.00 0.00 0.00 0.67 0.33 0.50 0.00 0.50 0.00 0.00 0.00
Final Sat.: 1043 1615 0 0 930 453 731 0 731 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.06 0.42 0.00 0.00 0.66 0.66 0.00 0.00 0.00 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.60 0.60 0.00 0.00 0.60 0.60 0.22 0.00 0.22 0.00 0.00 0.00
Volume/Cap: 0.10 0.69 0.00 0.00 1.10 1.10 0.01 0.00 0.01 0.00 0.00 0.00
Delay/Veh: 3.9 8.4 0.0 0.0 72.9 72.9 13.6 0.0 13.6 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 3.9 8.4 0.0 0.0 72.9 72.9 13.6 0.0 13.6 0.0 0.0 0.0
DesignQueue: 1 7 0 0 7 3 0 0 0 0 0 0

Uptown Project Traffic Impact Analysis
Year 2025 No Project - AM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #14 Telegraph Ave. / 19th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.890
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 65.2
Optimal Cycle: 64 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 17 0 0 17 0 0 0 0 0 0 20 0
Lanes: 1 0 1 0 0 0 0 0 1 0 0 0 0 0 0 0

Volume Module:
Base Vol: 146 275 0 0 321 41 0 0 0 0 31 174 133
Growth Adj: 1.04 1.04 1.04 1.57 1.57 1.57 1.00 1.00 1.00 1.75 1.75 1.75
Initial Bse: 152 286 0 0 504 64 0 0 0 0 54 305 233
Added Vol: 0 1 0 0 0 5 0 0 0 0 0 0 0 1
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 152 287 0 0 509 64 0 0 0 0 54 305 234
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.81 0.81 0.81 0.82 0.82 0.82 0.90 0.90 0.90 0.83 0.83 0.83
PHF Volume: 187 354 0 0 621 79 0 0 0 0 66 368 282
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 187 354 0 0 621 79 0 0 0 0 66 368 282
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 187 354 0 0 621 79 0 0 0 0 66 368 282

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.81 0.85 1.00 1.00 0.75 0.75 1.00 1.00 1.00 0.78 0.78 0.78
Lanes: 1.00 1.00 0.00 0.00 0.89 0.11 0.00 0.00 0.00 0.18 1.03 0.79
Final Sat.: 1533 1615 0 0 1269 160 0 0 0 271 1520 1167

Capacity Analysis Module:
Vol/Sat: 0.12 0.22 0.00 0.00 0.49 0.49 0.00 0.00 0.00 0.24 0.24 0.24
Crit Moves: \*\*\*\*
Green/Cycle: 0.38 0.38 0.00 0.00 0.38 0.38 0.00 0.00 0.00 0.44 0.44 0.44
Volume/Cap: 0.32 0.58 0.00 0.00 1.30 1.30 0.00 0.00 0.00 0.54 0.54 0.54
Delay/Veh: 11.4 15.2 0.0 0.0 161 160.7 0.0 0.0 0.0 10.8 10.8 10.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 11.4 15.2 0.0 0.0 161 160.7 0.0 0.0 0.0 10.8 10.8 10.8
DesignQueue: 3 6 0 0 11 1 0 0 0 1 5 4



Uptown Project Traffic Impact Analysis
Year 2025 No Project - AM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #15 Telegraph / 18th
Cycle (sec): 45 Critical Vol./Cap. (X): 0.523
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 13.1
Optimal Cycle: 54 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 1 0 1 0 0 0 0 1 0 0 0 0
Volume Module: >> Count Date: 30 Jul 2003 <<
Base Vol: 34 405 0 0 305 12 20 0 4 0 0 0
Growth Adj: 1.05 1.05 1.05 1.98 1.98 1.98 1.06 1.06 1.06 1.06 1.06 1.06
Initial Bse: 36 425 0 0 604 24 21 0 4 0 0 0
Added Vol: 0 1 0 0 0 5 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 36 426 0 0 609 24 21 0 4 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 40 474 0 0 677 26 24 0 5 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 40 474 0 0 677 26 24 0 5 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 40 474 0 0 677 26 24 0 5 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.57 1.00 1.00 1.00 0.90 0.90 0.88 1.00 0.88 1.00 1.00 1.00
Lanes: 1.00 1.00 0.00 0.00 0.96 0.04 0.83 0.00 0.17 0.00 0.00 0.00
Final Sat.: 1081 1900 0 0 1637 64 1389 0 278 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.04 0.25 0.00 0.00 0.41 0.41 0.02 0.00 0.02 0.00 0.00 0.00
Crit Moves:
Green/Cycle: 0.30 0.30 0.00 0.00 0.80 0.80 0.02 0.00 0.02 0.00 0.00 0.00
Volume/Cap: 0.12 0.83 0.00 0.00 0.52 0.52 0.83 0.00 0.83 0.00 0.00 0.00
Delay/Veh: 11.6 24.2 0.0 0.0 1.9 1.9 108.5 0.0 108.5 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 11.6 24.2 0.0 0.0 1.9 1.9 108.5 0.0 108.5 0.0 0.0 0.0
DesignQueue: 1 9 0 0 4 0 1 0 0 0 0 0

Uptown Project Traffic Impact Analysis
Year 2025 No Project - AM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #16 Telegraph Ave. / 17th St.
Cycle (sec): 40 Critical Vol./Cap. (X): 0.615
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 11.2
Optimal Cycle: 38 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 20 0 0 20 0 0 10 0 0 0 0 0
Lanes: 0 0 1 1 0 1 0 1 0 0 0 1 1 0 0 0 0 0 0
Volume Module:
Base Vol: 0 258 5 77 194 0 155 698 73 0 0 0
Growth Adj: 1.05 1.05 1.05 1.98 1.98 1.98 1.06 1.06 1.06 1.00 1.00 1.00
Initial Bse: 0 271 5 152 384 0 164 740 77 0 0 0
Added Vol: 0 1 0 3 2 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 272 5 155 386 0 164 740 77 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 302 6 173 429 0 183 822 86 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 302 6 173 429 0 183 822 86 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 302 6 173 429 0 183 822 86 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.88 0.88 0.57 0.85 1.00 0.84 0.84 0.84 1.00 1.00 1.00
Lanes: 0.00 1.96 0.04 1.00 1.00 0.00 0.50 2.26 0.24 0.00 0.00 0.00
Final Sat.: 0 3266 63 1079 1615 0 805 3626 379 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.09 0.09 0.16 0.27 0.00 0.23 0.23 0.23 0.00 0.00 0.00
Crit Moves:
Green/Cycle: 0.00 0.50 0.50 0.50 0.50 0.00 0.30 0.30 0.30 0.00 0.00 0.00
Volume/Cap: 0.00 0.18 0.18 0.32 0.53 0.00 0.76 0.76 0.76 0.00 0.00 0.00
Delay/Veh: 0.0 5.6 5.6 6.3 7.5 0.0 15.0 15.0 15.0 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 5.6 5.6 6.3 7.5 0.0 15.0 15.0 15.0 0.0 0.0 0.0
DesignQueue: 0 3 0 2 5 0 3 13 1 0 0 0

Uptown Project Traffic Impact Analysis
Year 2025 No Project - AM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #17 Broadway/ W. Grand Ave.

Cycle (sec): 85 Critical Vol./Cap. (X): 1.080
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 33.5
Optimal Cycle: 140 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns (L, T, R) for each. Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns and 12 rows. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns and 4 rows. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 10 rows. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis
Year 2025 No Project - AM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #18 Broadway/ 20th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.534
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 13.8
Optimal Cycle: 43 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 sub-columns (L, T, R) for each. Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns and 12 rows. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns and 4 rows. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 10 rows. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - AM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #19 Broadway/ 19th St.  
\*\*\*\*\*

Cycle (sec): 60 Critical Vol./Cap. (X): 0.451  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 13.4  
Optimal Cycle: 60 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Rights:	0 21 0			0 21 0			0 0 0			0 31 0		
Min. Green:	0	1	0	0	0	2	1	0	0	0	1	0
Lanes:	0	1	0	0	0	2	1	0	0	0	1	0

Volume Module:

Base Vol:	22	346	0	0	518	64	0	0	0	27	278	78
Growth Adj:	1.16	1.16	1.16	1.23	1.23	1.23	1.00	1.00	1.00	1.56	1.56	1.56
Initial Bse:	26	401	0	0	637	79	0	0	0	42	434	122
Added Vol:	0	0	0	0	0	0	0	0	0	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	26	401	0	0	637	79	0	0	0	42	435	122
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	28	446	0	0	708	87	0	0	0	47	483	135
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	28	446	0	0	708	87	0	0	0	47	483	135
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	28	446	0	0	708	87	0	0	0	47	483	135

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.74	0.74	1.00	1.00	0.81	0.81	1.00	1.00	1.00	0.80	0.80	0.80
Lanes:	0.12	1.88	0.00	0.00	2.67	0.33	0.00	0.00	0.00	0.14	1.45	0.41
Final Sat.:	169	2661	0	0	4088	505	0	0	0	215	2220	622

Capacity Analysis Module:

Vol/Sat:	0.17	0.17	0.00	0.00	0.17	0.17	0.00	0.00	0.00	0.22	0.22	0.22
Crit Moves:	****			****			****			****		
Green/Cycle:	0.35	0.35	0.00	0.00	0.35	0.35	0.00	0.00	0.00	0.52	0.52	0.52
Volume/Cap:	0.48	0.48	0.00	0.00	0.49	0.49	0.00	0.00	0.00	0.42	0.42	0.42
Delay/Veh:	15.6	15.6	0.0	0.0	15.6	15.6	0.0	0.0	0.0	9.1	9.1	9.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	15.6	15.6	0.0	0.0	15.6	15.6	0.0	0.0	0.0	9.1	9.1	9.1
DesignQueue:	1	10	0	0	16	2	0	0	0	1	8	2

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - AM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #20 Broadway/ 17th St.  
\*\*\*\*\*

Cycle (sec): 60 Critical Vol./Cap. (X): 0.656  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 18.7  
Optimal Cycle: 60 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Rights:	0 27 0			0 27 0			0 25 0			0 0 0		
Min. Green:	0	0	1	0	1	0	0	1	0	1	0	1
Lanes:	0	0	1	0	1	0	0	1	0	1	0	1

Volume Module:

Base Vol:	0	247	79	100	483	0	76	703	30	0	0	0
Growth Adj:	1.01	1.01	1.01	1.07	1.07	1.07	1.32	1.32	1.32	1.00	1.00	1.00
Initial Bse:	0	249	80	107	517	0	100	928	40	0	0	0
Added Vol:	0	0	0	0	0	0	0	3	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	249	80	107	517	0	100	931	40	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	277	89	119	574	0	111	1034	44	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	277	89	119	574	0	111	1034	44	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	277	89	119	574	0	111	1034	44	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.74	0.74	0.61	0.61	1.00	0.89	0.76	0.76	1.00	1.00	1.00
Lanes:	0.00	1.52	0.48	0.51	2.49	0.00	1.00	1.92	0.08	0.00	0.00	0.00
Final Sat.:	0	2136	683	601	2902	0	1700	2788	119	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.13	0.13	0.20	0.20	0.00	0.07	0.37	0.37	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.45	0.45	0.45	0.45	0.00	0.42	0.42	0.42	0.00	0.00	0.00
Volume/Cap:	0.00	0.29	0.29	0.44	0.44	0.00	0.16	0.89	0.89	0.00	0.00	0.00
Delay/Veh:	0.0	11.0	11.0	12.2	12.2	0.0	11.4	26.3	26.3	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	11.0	11.0	12.2	12.2	0.0	11.4	26.3	26.3	0.0	0.0	0.0
DesignQueue:	0	5	2	2	11	0	2	22	1	0	0	0

Uptown Project Traffic Impact Analysis
Year 2025 No Project - AM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #21 Telegraph Ave. / Broadway/ 15th St.
Cycle (sec): 60 Critical Vol./Cap. (X): 0.353
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 8.1
Optimal Cycle: 33 Level Of Service: A
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 25 0 0 25 0 0 0 0 0 0 0 0 0 0 2
Lanes: 0 1 1 0 0 0 2 0 0 0 0 0 0 0 0 0 2
Volume Module:
Base Vol: 0 492 0 0 531 0 0 0 0 0 0 0 162
Growth Adj: 1.02 1.02 1.02 1.04 1.04 1.04 1.00 1.00 1.00 1.22 1.22 1.22
Initial Bse: 0 502 0 0 552 0 0 0 0 0 0 0 198
Added Vol: 0 1 0 0 2 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 503 0 0 554 0 0 0 0 0 0 0 198
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 559 0 0 616 0 0 0 0 0 0 0 220
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 559 0 0 616 0 0 0 0 0 0 0 220
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 559 0 0 616 0 0 0 0 0 0 0 220
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.77 1.00 1.00 0.77 1.00 1.00 1.00 1.00 1.00 1.00 0.61
Lanes: 0.00 2.00 0.00 0.00 2.00 0.00 0.00 0.00 0.00 0.00 0.00 2.00
Final Sat.: 0 2924 0 0 2924 0 0 0 0 0 0 0 2302
Capacity Analysis Module:
Vol/Sat: 0.00 0.19 0.00 0.00 0.21 0.00 0.00 0.00 0.00 0.00 0.00 0.10
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.60 0.00 0.00 0.60 0.00 0.00 0.00 0.00 0.00 0.00 0.27
Volume/Cap: 0.00 0.32 0.00 0.00 0.35 0.00 0.00 0.00 0.00 0.00 0.00 0.35
Delay/Veh: 0.0 6.1 0.0 0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.0 18.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 6.1 0.0 0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.0 18.0
DesignQueue: 0 8 0 0 9 0 0 0 0 0 0 0 5

Uptown Project Traffic Impact Analysis
Year 2025 No Project - AM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #22 Broadway/ 14th St.
Cycle (sec): 60 Critical Vol./Cap. (X): 0.510
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 13.1
Optimal Cycle: 60 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 29 0 0 29 0 0 23 0 0 23 0
Lanes: 0 0 1 1 0 0 0 2 1 0 0 0 1 1 0
Volume Module:
Base Vol: 0 364 58 0 611 121 0 231 129 0 403 127
Growth Adj: 1.02 1.02 1.02 1.08 1.08 1.08 1.01 1.01 1.01 1.12 1.12 1.12
Initial Bse: 0 371 59 0 660 131 0 233 130 0 451 142
Added Vol: 0 0 0 0 2 0 0 0 0 0 0 0 1
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 371 59 0 662 131 0 233 130 0 451 143
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 413 66 0 735 145 0 259 145 0 502 159
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 413 66 0 735 145 0 259 145 0 502 159
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 413 66 0 735 145 0 259 145 0 502 159
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.75 0.75 1.00 0.75 0.75 1.00 0.73 0.73 1.00 0.74 0.74
Lanes: 0.00 1.73 0.27 0.00 2.51 0.49 0.00 1.28 0.72 0.00 1.52 0.48
Final Sat.: 0 2469 393 0 3548 700 0 1775 991 0 2140 679
Capacity Analysis Module:
Vol/Sat: 0.00 0.17 0.17 0.00 0.21 0.21 0.00 0.15 0.15 0.00 0.23 0.23
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.48 0.48 0.00 0.48 0.48 0.00 0.38 0.38 0.00 0.38 0.38
Volume/Cap: 0.00 0.35 0.35 0.00 0.43 0.43 0.00 0.38 0.38 0.00 0.61 0.61
Delay/Veh: 0.0 10.3 10.3 0.0 10.8 10.8 0.0 14.4 14.4 0.0 17.5 17.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 10.3 10.3 0.0 10.8 10.8 0.0 14.4 14.4 0.0 17.5 17.5
DesignQueue: 0 7 1 0 13 3 0 5 3 0 11 3

Uptown Project Traffic Impact Analysis
Year 2025 No Project - AM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #23 Frontage Rd./ W. Grand Ave.

Cycle (sec): 90 Critical Vol./Cap. (X): 1.294
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 166.5
Optimal Cycle: 140 Level Of Service: F

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns representing different traffic movements and 10 rows of volume data.

Saturation Flow Module table with 12 columns and 5 rows of saturation flow data.

Capacity Analysis Module table with 12 columns and 10 rows of capacity analysis data.

Uptown Project Traffic Impact Analysis
Year 2025 No Project - AM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #24 Mandela Pkwy/ W. Grand Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.496
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 20.7
Optimal Cycle: 118 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns representing different traffic movements and 10 rows of volume data.

Saturation Flow Module table with 12 columns and 5 rows of saturation flow data.

Capacity Analysis Module table with 12 columns and 10 rows of capacity analysis data.

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - AM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #25 Northgate Ave./ W. Grand Ave.  
\*\*\*\*\*

Cycle (sec): 90 Critical Vol./Cap. (X): 0.980  
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 44.7  
Optimal Cycle: 140 Level Of Service: D

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	20	0	20	7	45	0	0	0	0
Lanes:	0	0	0	2	0	0	1	0	2	0	0	1

Volume Module: >> Count Date: 9 Nov 2000 <<

Base Vol:	0	0	0	645	0	234	191	532	0	0	671	60
Growth Adj:	1.00	1.00	1.00	1.27	1.27	1.27	1.27	1.27	1.27	1.97	1.97	1.97
Initial Bse:	0	0	0	819	0	297	243	676	0	0	1322	118
Added Vol:	0	0	0	1	0	1	2	0	0	0	0	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	820	0	298	245	676	0	0	1322	120
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	863	0	314	257	711	0	0	1391	127
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	863	0	314	257	711	0	0	1391	127
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	863	0	314	257	711	0	0	1391	127

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.92	1.00	0.72	0.95	0.88	1.00	1.00	0.87	0.87
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	1.83	0.17
Final Sat.:	0	0	0	3502	0	1373	1805	3339	0	0	3024	275

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.25	0.00	0.23	0.14	0.21	0.00	0.00	0.46	0.46
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.00	0.00	0.25	0.00	0.25	0.15	0.62	0.00	0.00	0.47	0.47
Volume/Cap:	0.00	0.00	0.00	0.98	0.00	0.91	0.98	0.35	0.00	0.00	0.98	0.98
Delay/Veh:	0.0	0.0	0.0	59.3	0.0	62.7	89.0	8.9	0.0	0.0	42.0	42.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	59.3	0.0	62.7	89.0	8.9	0.0	0.0	42.0	42.0
DesignQueue:	0	0	0	34	0	12	11	14	0	0	41	4

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Uptown Project Traffic Impact Analysis  
Year 2025 No Project - AM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #26 Webster St./Grand Ave.  
\*\*\*\*\*

Cycle (sec): 60 Critical Vol./Cap. (X): 0.752  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 24.8  
Optimal Cycle: 52 Level Of Service: C

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	20	0	0	15	0	9	15	0
Lanes:	0	0	0	0	1	0	0	1	0	1	0	1

Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol:	0	0	0	17	203	21	53	355	321	120	424	32
Growth Adj:	1.00	1.00	1.00	1.29	1.29	1.29	1.23	1.23	1.23	1.38	1.38	1.38
Initial Bse:	0	0	0	22	262	27	65	437	395	166	585	44
Added Vol:	0	0	0	0	0	0	0	5	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	22	262	27	65	442	395	166	587	44
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	0.90	0.90	0.90	0.94	0.94	0.94	0.97	0.97	0.97
PHF Volume:	0	0	0	24	291	30	69	468	418	171	608	46
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	24	291	30	69	468	418	171	608	46
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	24	291	30	69	468	418	171	608	46

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.85	0.85	0.72	0.69	0.69	0.69	0.95	0.87	0.87
Lanes:	0.00	0.00	0.00	0.08	0.92	1.00	0.14	0.98	0.88	1.00	1.86	0.14
Final Sat.:	0	0	0	125	1490	1373	191	1292	1155	1805	3075	231

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.20	0.20	0.02	0.36	0.36	0.36	0.09	0.20	0.20
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.00	0.00	0.33	0.33	0.33	0.38	0.38	0.38	0.15	0.53	0.53
Volume/Cap:	0.00	0.00	0.00	0.59	0.59	0.07	0.94	0.94	0.94	0.63	0.37	0.37
Delay/Veh:	0.0	0.0	0.0	21.2	21.2	13.9	35.5	35.5	35.5	34.7	8.7	8.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	21.2	21.2	13.9	35.5	35.5	35.5	34.7	8.7	8.7
DesignQueue:	0	0	0	1	7	1	2	10	9	5	10	1

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Uptown Project Traffic Impact Analysis  
Year 2025 No Project - AM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #27 Harrison St./ Grand Ave.  
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Cycle (sec): 90 Critical Vol./Cap. (X): 0.938  
Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 32.2  
Optimal Cycle: 122 Level Of Service: C

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	2	0	1	1	2	0	1	2	0	1

Volume Module: >> Count Date: 14 Nov 2000 <<

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	63	717	244	8	1131	78	57	239	128	484	704	124
Growth Adj:	1.41	1.41	1.41	1.29	1.29	1.29	1.25	1.25	1.25	1.19	1.19	1.19
Initial Bse:	89	1011	344	10	1459	101	71	299	160	576	838	148
Added Vol:	0	0	0	0	0	0	1	4	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	89	1011	344	10	1459	101	72	303	160	576	840	148
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	94	1064	362	11	1536	106	76	319	168	606	884	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	94	1064	362	11	1536	106	76	319	168	606	884	155
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	94	1064	362	11	1536	106	76	319	168	606	884	155

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	0.10	0.95	0.85	0.83	0.83	0.83	0.92	0.90	0.90	0.92	0.93	0.93
Lanes:	1.00	2.00	1.00	0.02	2.79	0.19	2.00	1.31	0.69	2.00	1.70	0.30
Final Sat.:	188	3610	1615	31	4414	304	3502	2239	1183	3502	3003	528

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	0.50	0.29	0.22	0.35	0.35	0.35	0.02	0.14	0.14	0.17	0.29	0.29
Green/Cycle:	0.53	0.53	0.71	0.53	0.53	0.53	0.02	0.15	0.15	0.18	0.31	0.31
Volume/Cap:	0.94	0.56	0.31	0.66	0.66	0.66	0.94	0.94	0.94	0.94	0.94	0.94
Delay/Veh:	89.7	14.4	4.9	15.9	15.9	15.9	123.4	62.6	62.6	57.6	44.8	44.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	89.7	14.4	4.9	15.9	15.9	15.9	123.4	62.6	62.6	57.6	44.8	44.8
DesignQueue:	2	27	5	0	39	3	4	14	7	26	33	6

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - AM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #28 El Embarcadero/ Grand Ave.  
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Cycle (sec): 90 Critical Vol./Cap. (X): 0.473  
Loss Time (sec): 12 (Y+R = 8 sec) Average Delay (sec/veh): 19.9  
Optimal Cycle: 67 Level Of Service: B

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	15	0	0	0	0	0	0	30	0	10	30	0
Lanes:	1	0	0	0	0	0	0	0	2	1	0	2

Volume Module: >> Count Date: 9 Jul 2003 <<

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	346	0	245	0	0	0	0	357	254	91	802	0
Growth Adj:	1.10	1.10	1.10	1.00	1.00	1.00	1.07	1.07	1.07	1.10	1.10	1.10
Initial Bse:	381	0	270	0	0	0	0	382	272	100	882	0
Added Vol:	1	0	0	0	0	0	0	4	0	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	382	0	270	0	0	0	0	386	272	100	883	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	1.00	1.00	1.00	0.91	0.91	0.91	0.90	0.90	0.90
PHF Volume:	418	0	296	0	0	0	0	422	297	111	981	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	418	0	296	0	0	0	0	422	297	111	981	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	418	0	296	0	0	0	0	422	297	111	981	0

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	0.95	1.00	0.85	1.00	1.00	1.00	1.00	1.00	0.68	0.95	0.85	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	1805	0	1615	0	0	0	0	3610	1292	1805	3249	0

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	0.42	0.00	0.42	0.00	0.00	0.00	0.00	0.33	0.75	0.11	0.45	0.00
Green/Cycle:	0.55	0.00	0.43	0.00	0.00	0.00	0.00	0.35	0.30	0.55	0.68	0.00
Volume/Cap:	20.5	0.0	18.9	0.0	0.0	0.0	0.0	22.8	3.7	41.0	21.2	0.0
Delay/Veh:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	20.5	0.0	18.9	0.0	0.0	0.0	0.0	22.8	3.7	41.0	21.2	0.0
DesignQueue:	13	0	9	0	0	0	0	14	4	5	29	0

Uptown Project Traffic Impact Analysis
Year 2025 No Project - AM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Table for Intersection #29 MacArthur Blvd./ Grand Ave. showing traffic metrics: Cycle (sec), Loss Time (sec), Optimal Cycle, Approach, Movement, Control, Rights, Min. Green, Lanes, Volume Module, Sat/Lane, Adjustment, Lanes, Final Sat., Capacity Analysis Module.

Uptown Project Traffic Impact Analysis
Year 2025 No Project - AM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Table for Intersection #30 MacArthur Blvd./ Lake Shore Ave. showing traffic metrics: Cycle (sec), Loss Time (sec), Optimal Cycle, Approach, Movement, Control, Rights, Min. Green, Lanes, Volume Module, Sat/Lane, Adjustment, Lanes, Final Sat., Capacity Analysis Module.



Uptown Project Traffic Impact Analysis  
Year 2025 No Project - AM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #31 Lake Park Ave./ Lake Shore Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.987  
Loss Time (sec): 16 (Y+R = 12 sec) Average Delay (sec/veh): 76.0  
Optimal Cycle: 135 Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	15	0	7	0	0	15	20	0	0	20	0
Lanes:	1	0	1	0	0	1	1	0	2	0	0	1

Volume Module: >> Count Date: 17 Jul 2003 <<

	Base Vol:	Growth Adj:	Initial Bse:	Added Vol:	PasserByVol:	Initial Fut:	User Adj:	PHF Adj:	PHF Volume:	Reduct Vol:	Reduced Vol:	PCE Adj:	MLF Adj:	Final Vol.:
	483	585	212	30	0	20	302	343	0	0	431	291		
	1.03	1.03	1.03	1.18	1.18	1.18	1.02	1.02	1.02	1.14	1.14	1.14		
	497	603	218	35	0	24	308	350	0	0	491	332		
	1	1	0	0	0	0	0	0	0	0	0	0		
	498	604	218	35	0	24	308	350	0	0	491	332		
	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
	525	635	230	37	0	25	324	368	0	0	517	349		
	0	0	0	0	0	0	0	0	0	0	0	0		
	525	635	230	37	0	25	324	368	0	0	517	349		
	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
	525	635	230	37	0	25	324	368	0	0	517	349		

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.95	1.00	1.00	0.89	0.89		
Lanes:	1.00	1.00	1.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.19	0.81		
Final Sat.:	1805	1900	1615	1805	0	1615	1805	3610	0	0	2026	1368		

Capacity Analysis Module:

Vol/Sat:	0.29	0.33	0.14	0.02	0.00	0.02	0.18	0.10	0.00	0.00	0.26	0.26		
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****		
Green/Cycle:	0.27	0.27	0.27	0.09	0.00	0.09	0.19	0.44	0.00	0.00	0.25	0.25		
Volume/Cap:	1.06	1.22	0.52	0.24	0.00	0.18	0.96	0.23	0.00	0.00	1.02	1.02		
Delay/Veh:	85.3	143	25.6	34.8	0.0	34.4	70.0	14.2	0.0	0.0	66.4	66.4		
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
AdjDel/Veh:	85.3	143	25.6	34.8	0.0	34.4	70.0	14.2	0.0	0.0	66.4	66.4		
DesignQueue:	18	22	8	2	0	1	12	9	0	0	18	12		

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - AM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #32 Brush St./ 18th St.

Cycle (sec): 75 Critical Vol./Cap. (X): 0.530  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 8.4  
Optimal Cycle: 63 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	45	0	0	0	0	0	10	0
Lanes:	0	0	0	0	0	3	1	0	0	1	0	2

Volume Module:

	Base Vol:	Growth Adj:	Initial Bse:	Added Vol:	PasserByVol:	Initial Fut:	User Adj:	PHF Adj:	PHF Volume:	Reduct Vol:	Reduced Vol:	PCE Adj:	MLF Adj:	Final Vol.:
	0	0	0	0	0	1890	154	0	0	0	62	143	0	
	1.00	1.00	1.00	1.16	1.16	1.16	1.00	1.00	1.00	2.01	2.01	2.01		
	0	0	0	0	2192	179	0	0	0	125	287	0		
	0	0	0	0	0	0	0	0	0	5	0	0		
	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	2192	179	0	0	0	130	287	0		
	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90		
	0	0	0	0	2436	198	0	0	0	144	319	0		
	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	2436	198	0	0	0	144	319	0		
	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
	0	0	0	0	2436	198	0	0	0	144	319	0		

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	0.90	0.90	1.00	1.00	1.00	0.85	0.95	1.00		
Lanes:	0.00	0.00	0.00	0.00	3.70	0.30	0.00	0.00	0.00	1.00	2.00	0.00		
Final Sat.:	0	0	0	0	6325	515	0	0	0	1615	3610	0		

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.00	0.39	0.39	0.00	0.00	0.00	0.09	0.09	0.00		
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****		
Green/Cycle:	0.00	0.00	0.00	0.00	0.73	0.73	0.00	0.00	0.00	0.17	0.17	0.00		
Volume/Cap:	0.00	0.00	0.00	0.00	0.53	0.53	0.00	0.00	0.00	0.53	0.53	0.00		
Delay/Veh:	0.0	0.0	0.0	0.0	4.7	4.7	0.0	0.0	0.0	30.7	29.5	0.0		
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
AdjDel/Veh:	0.0	0.0	0.0	0.0	4.7	4.7	0.0	0.0	0.0	30.7	29.5	0.0		
DesignQueue:	0	0	0	0	31	2	0	0	0	5	11	0		

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - AM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #33 18th St./ Castro St.  
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Cycle (sec): 40 Critical Vol./Cap. (X): 0.365  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 8.3  
Optimal Cycle: 41 Level Of Service: A

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Rights:	0	20	0	0	0	0	0	0	0	0	13	0
Min. Green:	1	1	3	0	0	0	0	0	0	0	0	1
Lanes:	1	1	3	0	0	0	0	0	0	0	0	1

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Volume Module:

Base Vol:	189	726	0	0	0	0	0	0	0	0	24	205
Growth Adj:	1.10	1.10	1.10	1.00	1.00	1.00	1.00	1.00	1.00	1.81	1.81	1.81
Initial Bse:	208	799	0	0	0	0	0	0	0	0	43	371
Added Vol:	0	0	0	0	0	0	0	0	0	0	5	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	208	799	0	0	0	0	0	0	0	0	48	371
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	231	887	0	0	0	0	0	0	0	0	54	412
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	231	887	0	0	0	0	0	0	0	0	54	412
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	231	887	0	0	0	0	0	0	0	0	54	412

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Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.77	0.77	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.87	0.87
Lanes:	1.03	3.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	1.77
Final Sat.:	1518	5830	0	0	0	0	0	0	0	0	380	2914

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Capacity Analysis Module:

Vol/Sat:	0.15	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.14
Crit Moves:	****											
Green/Cycle:	0.49	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.32
Volume/Cap:	0.31	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.45
Delay/Veh:	6.6	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5	12.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	6.6	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5	12.5
DesignQueue:	3	11	0	0	0	0	0	0	0	0	1	7

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Uptown Project Traffic Impact Analysis  
Year 2025 No Project - AM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #34 MLK Jr. Way/ 18th St.  
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Cycle (sec): 60 Critical Vol./Cap. (X): 0.236  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 12.1  
Optimal Cycle: 62 Level Of Service: B

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Rights:	0	27	0	0	27	0	0	0	0	0	27	0
Min. Green:	0	1	1	0	0	1	0	0	0	0	1	0
Lanes:	0	1	1	0	0	1	0	0	0	0	1	0

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Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol:	11	137	0	0	142	60	0	0	0	20	60	21
Growth Adj:	1.43	1.43	1.43	2.57	2.57	2.57	1.00	1.00	1.00	1.23	1.23	1.23
Initial Bse:	16	196	0	0	365	154	0	0	0	0	25	74
Added Vol:	0	0	0	0	0	0	0	0	0	0	5	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	16	196	0	0	365	154	0	0	0	25	79	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90
PHF Volume:	17	217	0	0	405	171	0	0	0	27	88	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	17	217	0	0	405	171	0	0	0	27	88	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	17	217	0	0	405	171	0	0	0	27	88	29

\*\*\*\*\*

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.80	0.80	1.00	1.00	0.84	0.84	1.00	1.00	1.00	0.96	0.83	0.83
Lanes:	0.15	1.85	0.00	0.00	1.41	0.59	0.00	0.00	0.00	1.00	2.26	0.74
Final Sat.:	225	2797	0	0	2242	947	0	0	0	1830	3574	1171

\*\*\*\*\*

Capacity Analysis Module:

Vol/Sat:	0.08	0.08	0.00	0.00	0.18	0.18	0.00	0.00	0.00	0.01	0.02	0.02
Crit Moves:	****											
Green/Cycle:	0.44	0.44	0.00	0.00	0.44	0.44	0.00	0.00	0.00	0.44	0.44	0.44
Volume/Cap:	0.18	0.18	0.00	0.00	0.42	0.42	0.00	0.00	0.00	0.03	0.06	0.06
Delay/Veh:	11.0	11.0	0.0	0.0	13.0	13.0	0.0	0.0	0.0	10.1	10.2	10.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.0	11.0	0.0	0.0	13.0	13.0	0.0	0.0	0.0	10.1	10.2	10.2
DesignQueue:	0	4	0	0	3	3	0	0	0	1	2	1

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Uptown Project Traffic Impact Analysis  
Year 2025 No Project - AM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #35 Brush St./ 17th St.  
\*\*\*\*\*

Cycle (sec): 40 Critical Vol./Cap. (X): 0.704  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 8.7  
Optimal Cycle: 39 Level Of Service: A

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	15	0	0	10	0	0	0	0
Lanes:	0	0	0	1	1	2	0	0	1	0	0	0

Volume Module:

Base Vol:	0	0	0	1005	813	0	0	181	81	0	0	0
Growth Adj:	1.00	1.00	1.00	1.14	1.14	1.14	1.54	1.54	1.54	1.00	1.00	1.00
Initial Bse:	0	0	0	1146	927	0	0	279	125	0	0	0
Added Vol:	0	0	0	0	5	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	1146	932	0	0	279	125	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	0	1273	1035	0	0	310	139	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	1273	1035	0	0	310	139	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	1273	1035	0	0	310	139	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.77	0.77	1.00	1.00	0.91	0.91	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	2.00	0.00	0.00	1.38	0.62	0.00	0.00	0.00
Final Sat.:	0	0	0	2939	2939	0	0	2379	1065	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.43	0.35	0.00	0.00	0.13	0.13	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.00	0.00	0.55	0.55	0.00	0.00	0.25	0.25	0.00	0.00	0.00
Volume/Cap:	0.00	0.00	0.00	0.79	0.64	0.00	0.00	0.52	0.52	0.00	0.00	0.00
Delay/Veh:	0.0	0.0	0.0	8.6	6.6	0.0	0.0	13.5	13.5	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	8.6	6.6	0.0	0.0	13.5	13.5	0.0	0.0	0.0
DesignQueue:	0	0	0	14	11	0	0	5	2	0	0	0

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - AM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #36 17th St / Castro St/I-980 Off-Ramp  
\*\*\*\*\*

Cycle (sec): 70 Critical Vol./Cap. (X): 0.500  
Loss Time (sec): 12 (Y+R = 6 sec) Average Delay (sec/veh): 30.2  
Optimal Cycle: 62 Level Of Service: C

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	10	0	0	0	0	0	20	0	0	20	0
Lanes:	0	0	1	0	0	0	0	0	3	0	0	2

Volume Module:

Base Vol:	0	617	70	0	0	0	182	374	0	0	302	37
Growth Adj:	1.13	1.13	1.13	1.00	1.00	1.00	1.13	1.13	1.13	1.10	1.10	1.10
Initial Bse:	0	697	79	0	0	0	206	423	0	0	332	41
Added Vol:	0	0	1	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	697	80	0	0	0	206	423	0	0	332	41
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	775	89	0	0	0	229	470	0	0	369	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	775	89	0	0	0	229	470	0	0	369	45
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	775	89	0	0	0	229	470	0	0	369	45

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.94	0.94	1.00	1.00	1.00	0.95	0.91	1.00	1.00	0.90	0.90
Lanes:	0.00	1.79	0.21	0.00	0.00	0.00	1.00	3.00	0.00	0.00	2.67	0.33
Final Sat.:	0	3189	366	0	0	0	1805	5187	0	0	4547	557

Capacity Analysis Module:

Vol/Sat:	0.00	0.24	0.24	0.00	0.00	0.00	0.13	0.09	0.00	0.00	0.08	0.08
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.26	0.26	0.00	0.00	0.00	0.29	0.29	0.00	0.00	0.29	0.29
Volume/Cap:	0.00	0.94	0.94	0.00	0.00	0.00	0.44	0.32	0.00	0.00	0.28	0.28
Delay/Veh:	0.0	43.3	43.3	0.0	0.0	0.0	21.1	19.8	0.0	0.0	19.5	19.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	43.3	43.3	0.0	0.0	0.0	21.1	19.8	0.0	0.0	19.5	19.5
DesignQueue:	0	24	3	0	0	0	7	13	0	0	10	1

Uptown Project Traffic Impact Analysis
Year 2025 No Project - AM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #37 MLK Jr. Way/ 17th St
Cycle (sec): 60 Critical Vol./Cap. (X): 0.393
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 12.2
Optimal Cycle: 58 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 25 0 0 25 0 0 25 0 0 0 0 0
Lanes: 0 0 1 1 0 0 1 1 0 0 0 1 2 1 0 0 0 0 0 0
Volume Module: >> Count Date: 8 Jul 2003 <<
Base Vol: 0 58 17 10 137 0 3 1223 100 0 0 0
Growth Adj: 2.25 2.25 2.25 2.17 2.17 2.17 1.11 1.11 1.11 1.00 1.00 1.00
Initial Bse: 0 131 38 22 297 0 3 1358 111 0 0 0
Added Vol: 0 0 0 0 0 0 0 0 2 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 131 38 22 297 0 3 1360 111 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 1.00 1.00 1.00 0.95 0.95 0.95
PHF Volume: 0 145 43 24 330 0 3 1360 111 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 145 43 24 330 0 3 1360 111 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 145 43 24 330 0 3 1360 111 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.92 0.92 0.81 0.81 1.00 0.86 0.86 0.86 1.00 1.00 1.00
Lanes: 0.00 1.55 0.45 0.14 1.86 0.00 0.01 3.69 0.30 0.00 0.00 0.00
Final Sat.: 0 2697 790 210 2882 0 15 6006 490 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.05 0.05 0.11 0.11 0.00 0.23 0.23 0.23 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.42 0.42 0.42 0.42 0.00 0.45 0.45 0.45 0.00 0.00 0.00
Volume/Cap: 0.00 0.13 0.13 0.28 0.28 0.00 0.50 0.50 0.50 0.00 0.00 0.00
Delay/Veh: 0.0 11.0 11.0 12.1 12.1 0.0 12.4 12.4 12.4 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 11.0 11.0 12.1 12.1 0.0 12.4 12.4 12.4 0.0 0.0 0.0
DesignQueue: 0 3 1 0 7 0 0 26 2 0 0 0

Uptown Project Traffic Impact Analysis
Year 2025 No Project - AM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #38 Jefferson St./ 17th St.
Cycle (sec): 60 Critical Vol./Cap. (X): 0.322
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 11.5
Optimal Cycle: 59 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 25 0 0 25 0 0 26 0 0 0 0 0
Lanes: 0 0 1 1 0 0 1 1 0 0 0 1 2 1 0 0 0 0 0 0
Volume Module: >> Count Date: 8 Jul 2003 <<
Base Vol: 0 55 39 10 47 0 23 1119 102 0 0 0
Growth Adj: 1.68 1.68 1.68 3.00 3.00 3.00 1.12 1.12 1.12 1.00 1.00 1.00
Initial Bse: 0 92 66 30 141 0 26 1253 114 0 0 0
Added Vol: 0 0 0 0 0 0 0 0 2 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 92 66 30 141 0 26 1255 114 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 1.00 1.00 1.00 0.90 0.90 0.90
PHF Volume: 0 103 73 33 157 0 26 1255 114 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 103 73 33 157 0 26 1255 114 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 103 73 33 157 0 26 1255 114 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.82 0.82 0.78 0.78 1.00 0.85 0.85 0.85 1.00 1.00 1.00
Lanes: 0.00 1.17 0.83 0.35 1.65 0.00 0.07 3.60 0.33 0.00 0.00 0.00
Final Sat.: 0 1833 1300 518 2434 0 120 5846 532 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.06 0.06 0.06 0.06 0.00 0.21 0.21 0.21 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.42 0.42 0.42 0.42 0.00 0.45 0.45 0.45 0.00 0.00 0.00
Volume/Cap: 0.00 0.13 0.13 0.15 0.15 0.00 0.48 0.48 0.48 0.00 0.00 0.00
Delay/Veh: 0.0 10.9 10.9 11.0 11.0 0.0 11.7 11.7 11.7 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 10.9 10.9 11.0 11.0 0.0 11.7 11.7 11.7 0.0 0.0 0.0
DesignQueue: 0 2 1 1 3 0 0 24 2 0 0 0

Uptown Project Traffic Impact Analysis
Year 2025 No Project - AM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #39 Franklin St./ 17th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.497
Loss Time (sec): 8 (Y+R = 7 sec) Average Delay (sec/veh): 36.2
Optimal Cycle: 45 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 8 Jul 2003 <<. Table with 10 columns for volume counts and 10 columns for adjustment factors.

Saturation Flow Module. Table with 10 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module. Table with 10 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis
Year 2025 No Project - AM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #40 Webster St./ 17th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.439
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 11.8
Optimal Cycle: 47 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 8 Jul 2003 <<. Table with 10 columns for volume counts and 10 columns for adjustment factors.

Saturation Flow Module. Table with 10 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module. Table with 10 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #1 San Pablo Ave./ 31st St.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.541
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 11.8
Optimal Cycle: 82 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Control: Permitted Permitted Protected Protected
Rights: Include Include Include Include
Min. Green: 0 52 0 0 52 0 0 0 0 22 0 22
Lanes: 0 1 1 0 0 1 0 2 0 0 0 0 0 0 2 0 0 0 1
Volume Module: >> Count Date: 9 Jul 2003 <<
Base Vol: 0 800 0 43 622 0 0 0 0 184 0 21
Growth Adj: 1.63 1.63 1.63 1.65 1.65 1.65 1.00 1.00 1.00 1.42 1.42 1.42
Initial Bse: 0 1304 0 71 1026 0 0 0 0 261 0 30
Added Vol: 0 1 0 0 2 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 1305 0 71 1028 0 0 0 0 261 0 30
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume: 0 1338 0 73 1054 0 0 0 0 268 0 31
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1338 0 73 1054 0 0 0 0 268 0 31
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 1338 0 73 1054 0 0 0 0 268 0 31
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.85 1.00 0.14 0.85 1.00 1.00 1.00 1.00 0.92 1.00 0.68
Lanes: 0.00 2.00 0.00 1.00 2.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
Final Sat.: 0 3249 0 274 3249 0 0 0 0 3502 0 1292
Capacity Analysis Module:
Vol/Sat: 0.00 0.41 0.00 0.27 0.32 0.00 0.00 0.00 0.00 0.08 0.00 0.02
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.63 0.00 0.63 0.63 0.00 0.00 0.00 0.00 0.27 0.00 0.27
Volume/Cap: 0.00 0.65 0.00 0.42 0.51 0.00 0.00 0.00 0.00 0.29 0.00 0.09
Delay/Veh: 0.0 10.9 0.0 14.8 9.0 0.0 0.0 0.0 0.0 24.5 0.0 23.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 10.9 0.0 14.8 9.0 0.0 0.0 0.0 0.0 24.5 0.0 23.0
DesignQueue: 0 25 0 1 19 0 0 0 0 9 0 1

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #2 San Pablo Ave./ Market St.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.477
Loss Time (sec): 8 (Y+R = 10 sec) Average Delay (sec/veh): 12.0
Optimal Cycle: 78 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 50 0 0 50 0 0 20 0 0 0 0 20
Lanes: 0 0 1 1 0 0 0 1 1 0 0 1 0 1 0 0 0 0 0 1
Volume Module: >> Count Date: 9 Jul 2003 <<
Base Vol: 0 749 0 0 729 167 111 144 15 0 0 0
Growth Adj: 1.12 1.12 1.12 1.00 1.00 1.00 1.58 1.58 1.58 1.99 1.99 1.99
Initial Bse: 0 839 0 0 729 167 175 228 24 0 0 0
Added Vol: 0 2 0 0 2 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 841 0 0 731 167 175 228 24 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 889 0 0 773 177 185 241 25 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 889 0 0 773 177 185 241 25 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 889 0 0 773 177 185 241 25 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.88 0.95 1.00 0.85 0.85 0.86 0.86 0.86 1.00 1.00 1.00
Lanes: 0.00 2.00 0.00 0.00 1.63 0.37 0.82 1.07 0.11 0.00 0.00 1.00
Final Sat.: 0 3339 0 0 2642 604 1351 1753 183 0 0 1900
Capacity Analysis Module:
Vol/Sat: 0.00 0.27 0.00 0.00 0.29 0.29 0.14 0.14 0.14 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.63 0.00 0.00 0.63 0.63 0.28 0.28 0.28 0.00 0.00 0.00
Volume/Cap: 0.00 0.43 0.00 0.00 0.47 0.47 0.50 0.50 0.50 0.00 0.00 0.00
Delay/Veh: 0.0 8.3 0.0 0.0 8.7 8.7 26.3 26.3 26.3 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 8.3 0.0 0.0 8.7 8.7 26.3 26.3 26.3 0.0 0.0 0.0
DesignQueue: 0 16 0 0 14 3 6 8 1 0 0 0

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #3 San Pablo Ave. / 27th  
\*\*\*\*\*

Cycle (sec): 90 Critical Vol./Cap. (X): 1.879  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 69.2  
Optimal Cycle: 120 Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	60	0	0	60	0	0	22	0	0	22	0
Lanes:	0	1	0	1	0	1	0	0	1	1	0	1

Volume Module:

Base Vol:	8	960	60	174	638	7	21	40	19	53	87	90
Growth Adj:	1.42	1.42	1.42	1.50	1.50	1.50	1.46	1.46	1.46	1.41	1.41	1.41
Initial Bse:	11	1363	85	261	957	11	31	58	28	75	123	127
Added Vol:	0	2	0	0	2	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	1365	85	261	959	11	31	58	28	75	123	127
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	13	1517	95	290	1066	12	34	65	31	83	136	141
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	1517	95	290	1066	12	34	65	31	83	136	141
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	13	1517	95	290	1066	12	34	65	31	83	136	141

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	0.89	0.89	0.09	0.95	0.95	0.77	0.77	0.77	0.74	1.00	0.85
Lanes:	0.01	1.87	0.12	1.00	1.98	0.02	0.26	0.50	0.24	1.00	1.00	1.00
Final Sat.:	26	3147	196	179	3564	39	386	735	349	1414	1900	1615

Capacity Analysis Module:

Vol/Sat:	0.48	0.48	0.48	1.62	0.30	0.30	0.09	0.09	0.09	0.06	0.07	0.09
Crit Moves:	****			****			****			****		
Green/Cycle:	0.67	0.67	0.67	0.67	0.67	0.67	0.24	0.24	0.24	0.24	0.24	0.24
Volume/Cap:	0.72	0.72	0.72	2.44	0.45	0.45	0.36	0.36	0.36	0.24	0.29	0.36
Delay/Veh:	11.7	11.7	11.7	685.7	7.7	7.7	31.0	31.0	31.0	28.9	29.3	30.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.7	11.7	11.7	685.7	7.7	7.7	31.0	31.0	31.0	28.9	29.3	30.7
DesignQueue:	0	28	2	5	19	0	1	2	1	3	5	5

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #4 San Pablo Ave./ West St/25th St  
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Cycle (sec): 90 Critical Vol./Cap. (X): 0.508  
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 17.1  
Optimal Cycle: 73 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	32	0	0	32	0	12	0	12	17	0	17
Lanes:	0	1	0	1	0	1	0	0	1	1	0	0

Volume Module: >> Count Date: 9 Jul 2003 <<

Base Vol:	0	901	63	12	554	0	5	0	8	25	0	65
Growth Adj:	1.25	1.25	1.25	1.09	1.09	1.09	1.38	1.38	1.38	1.85	1.85	1.85
Initial Bse:	0	1126	79	13	604	0	7	0	11	46	0	120
Added Vol:	0	2	1	0	3	0	0	0	0	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1128	80	13	607	0	7	0	11	47	0	120
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	1193	84	14	642	0	7	0	12	50	0	127
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1193	84	14	642	0	7	0	12	50	0	127
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	1193	84	14	642	0	7	0	12	50	0	127

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.85	0.85	0.78	0.78	0.95	0.64	1.00	0.64	0.95	1.00	0.68
Lanes:	0.00	1.87	0.13	0.04	1.96	0.00	0.38	0.00	0.62	1.00	0.00	1.00
Final Sat.:	0	3004	212	63	2904	0	469	0	750	1805	0	1292

Capacity Analysis Module:

Vol/Sat:	0.00	0.40	0.40	0.22	0.22	0.00	0.02	0.00	0.02	0.03	0.00	0.10
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.54	0.54	0.54	0.54	0.00	0.13	0.00	0.13	0.19	0.00	0.19
Volume/Cap:	0.00	0.73	0.73	0.41	0.41	0.00	0.12	0.00	0.12	0.15	0.00	0.52
Delay/Veh:	0.0	17.1	17.1	12.2	12.2	0.0	34.7	0.0	34.7	30.6	0.0	34.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	17.1	17.1	12.2	12.2	0.0	34.7	0.0	34.7	30.6	0.0	34.8
DesignQueue:	0	30	2	0	15	0	0	0	1	2	0	5

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #5 San Pablo Ave./ Grand Ave  
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Cycle (sec): 80 Critical Vol./Cap. (X): 0.933  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 85.7  
Optimal Cycle: 108 Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Rights:	Include			Include			Include			Include		
Min. Green:	0	40	0	0	40	0	0	33	0	0	33	0
Lanes:	1	0	1	1	0	1	1	0	2	0	1	1

Volume Module:

Base Vol:	112	489	14	122	373	7	31	663	33	31	677	101
Growth Adj:	1.53	1.53	1.53	1.24	1.24	1.24	1.76	1.76	1.76	1.82	1.82	1.82
Initial Bse:	171	748	21	151	463	9	55	1167	58	56	1232	184
Added Vol:	3	2	1	0	4	0	0	0	4	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	174	750	22	151	467	9	55	1167	62	58	1232	184
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	184	790	24	159	491	9	57	1228	65	61	1297	193
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	184	790	24	159	491	9	57	1228	65	61	1297	193
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	184	790	24	159	491	9	57	1228	65	61	1297	193

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.43	0.88	0.88	0.27	0.88	0.88	0.12	0.95	0.72	0.60	0.60	0.72
Lanes:	1.00	1.94	0.06	1.00	1.96	0.04	1.00	2.00	1.00	0.09	1.91	1.00
Final Sat.:	817	3229	97	504	3268	61	230	3610	1373	103	2175	1373

Capacity Analysis Module:

Vol/Sat:	0.22	0.24	0.24	0.32	0.15	0.15	0.25	0.34	0.05	0.60	0.60	0.14
Crit Moves:	****			****			****			****		
Green/Cycle:	0.49	0.49	0.49	0.49	0.49	0.49	0.41	0.41	0.41	0.41	0.41	0.41
Volume/Cap:	0.45	0.50	0.50	0.64	0.30	0.30	0.61	0.84	0.12	1.46	1.46	0.35
Delay/Veh:	17.1	14.8	14.8	27.2	12.7	12.7	45.4	27.3	15.4	238.7	239	18.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	17.1	14.8	14.8	27.2	12.7	12.7	45.4	27.3	15.4	238.7	239	18.2
DesignQueue:	4	19	1	4	12	0	2	36	2	2	38	5

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #6 San Pablo Ave./ 20th St.  
\*\*\*\*\*

Cycle (sec): 80 Critical Vol./Cap. (X): 0.584  
Loss Time (sec): 12 (Y+R = 25 sec) Average Delay (sec/veh): 27.0  
Optimal Cycle: 62 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Ignore			Permitted Include			Permitted Include		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	20	0	0	20	0	0	30	0	0	30	0
Lanes:	1	0	0	1	0	0	0	1	0	0	1	0

Volume Module:

Base Vol:	40	376	87	95	328	195	194	46	20	15	32	77
Growth Adj:	1.30	1.30	1.30	1.12	1.12	1.12	1.00	1.00	1.00	1.31	1.31	1.31
Initial Bse:	52	489	113	106	367	218	194	46	20	20	42	101
Added Vol:	0	0	7	10	0	0	0	0	0	4	0	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	52	489	120	116	367	218	194	46	20	24	42	107
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.94	0.94	0.00	0.91	0.91	0.91	0.92	0.92	0.92
PHF Volume:	58	543	133	124	391	0	213	51	22	26	46	116
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	58	543	133	124	391	0	213	51	22	26	46	116
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	58	543	133	124	391	0	213	51	22	26	46	116

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.53	0.82	0.82	0.17	0.95	1.00	0.59	0.59	0.59	0.67	0.67	0.67
Lanes:	1.00	0.80	0.20	1.00	2.00	1.00	1.00	0.70	0.30	0.36	0.64	1.00
Final Sat.:	1007	1258	309	319	3610	1900	1120	781	339	458	811	1269

Capacity Analysis Module:

Vol/Sat:	0.06	0.43	0.43	0.39	0.11	0.00	0.19	0.06	0.06	0.06	0.06	0.09
Crit Moves:	****			****			****			****		
Green/Cycle:	0.47	0.47	0.47	0.47	0.47	0.00	0.38	0.38	0.38	0.38	0.38	0.38
Volume/Cap:	0.12	0.91	0.91	0.82	0.23	0.00	0.51	0.17	0.17	0.15	0.15	0.24
Delay/Veh:	12.2	36.5	36.5	54.6	12.7	0.0	22.5	16.9	16.9	16.8	16.8	18.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.2	36.5	36.5	54.6	12.7	0.0	22.5	16.9	16.9	16.8	16.8	18.0
DesignQueue:	1	14	3	3	9	0	6	1	1	1	1	3



Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Unsignalized Method (Future Volume Alternative)
Intersection #7 San Pablo / Williams
Average Delay (sec/veh): 1.4 Worst Case Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 1 0 0 0 0 2 0 0 0 0 0 0 0 1
Volume Module:
Base Vol: 0 300 0 0 360 0 0 0 0 0 0 0 106
Growth Adj: 1.73 1.73 1.73 1.11 1.11 1.11 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 519 0 0 400 0 0 0 0 0 0 0 106
Added Vol: 0 7 0 0 4 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 526 0 0 404 0 0 0 0 0 0 0 106
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 584 0 0 448 0 0 0 0 0 0 0 118
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 584 0 0 448 0 0 0 0 0 0 0 118
Critical Gap Module:
Critical Gap: 6.2
FollowUpTim: 3.3
Capacity Module:
Conflict Vol: 584
Potent Cap.: 515
Move Cap.: 515
Level of Service Module:
Stopped Del: 14.1
LOS by Move: B
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.:
Shrd StpDel:
Shared LOS:
ApproachDel: 14.1
ApproachLOS: B

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
(With TLBS)

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #8 San Pablo Ave./ 19th St.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.598
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 26.5
Optimal Cycle: 79 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 30 0 0 30 0 12 0 12 0 25 0
Lanes: 1 0 1 0 0 0 0 2 0 1 0 0 1 0 0 1 0 0
Volume Module:
Base Vol: 19 129 0 0 264 94 109 0 9 37 539 71
Growth Adj: 1.73 1.73 1.73 1.11 1.11 1.11 1.00 1.00 1.00 1.16 1.16 1.16
Initial Bse: 33 223 0 0 293 104 109 0 9 43 625 82
Added Vol: 0 6 0 0 1 3 0 0 0 0 0 0 1
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 33 229 0 0 294 107 109 0 9 43 625 83
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 37 255 0 0 327 119 121 0 10 48 695 93
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 37 255 0 0 327 119 121 0 10 48 695 93
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 37 255 0 0 327 119 121 0 10 48 695 93
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.54 0.85 1.00 1.00 0.95 0.72 0.72 1.00 0.72 0.86 0.86 0.86
Lanes: 1.00 1.00 0.00 0.00 2.00 1.00 0.92 0.00 0.08 0.11 1.67 0.22
Final Sat.: 1026 1615 0 0 3610 1373 1269 0 105 187 2723 363
Capacity Analysis Module:
Vol/Sat: 0.04 0.16 0.00 0.00 0.09 0.09 0.10 0.00 0.10 0.26 0.26 0.26
Crit Moves:
Green/Cycle: 0.38 0.38 0.00 0.00 0.38 0.38 0.15 0.00 0.15 0.32 0.32 0.32
Volume/Cap: 0.09 0.42 0.00 0.00 0.24 0.23 0.64 0.00 0.64 0.79 0.79 0.79
Delay/Veh: 16.7 20.7 0.0 0.0 17.6 18.2 46.0 0.0 46.0 30.3 30.3 30.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 16.7 20.7 0.0 0.0 17.6 18.2 46.0 0.0 46.0 30.3 30.3 30.3
DesignQueue: 1 7 0 0 9 3 5 0 0 2 22 3

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Unsignalized Method (Future Volume Alternative)
Intersection #9 San Pablo / 18th
Average Delay (sec/veh): 2.1 Worst Case Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 0 1 0 0 1 1 0 0 0 0 1 1 0 0

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #10 San Pablo / 17th / Clay
Cycle (sec): 70 Critical Vol./Cap. (X): 0.563
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 38.0
Optimal Cycle: 62 Level Of Service: D
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 25 0 0 25 0 0 25 0 0 0 0
Lanes: 0 0 0 1 0 1 0 0 1 1 1 0 2 0 1 0 0 1 0 1

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #11 Telegraph Ave./ W. Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 1.444
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 51.1
Optimal Cycle: 120 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Control, Rights, Min. Green, Lanes.

Volume Module table with 10 columns and 14 rows including Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 10 columns and 5 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 10 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, etc.

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #12 Telegraph Ave./ 20th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 1.171
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 272.6
Optimal Cycle: 120 Level Of Service: F

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Control, Rights, Min. Green, Lanes.

Volume Module table with 10 columns and 14 rows including Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 10 columns and 5 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 10 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, etc.

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #13 Telegraph / Williams St  
\*\*\*\*\*

Cycle (sec):	45	Critical Vol./Cap. (X):	0.916
Loss Time (sec):	8 (Y+R = 4 sec)	Average Delay (sec/veh):	90.3
Optimal Cycle:	70	Level Of Service:	F

\*\*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R

-----

Control:	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0	0 0 0	10 0 10	0 0 0
Lanes:	1 0 1 0 0	0 0 0 1 0	0 0 1 0 0	0 0 0 0 0

-----

Volume Module:

Base Vol:	14 440	0	0 400	28	1 0	1 0	0 0 0
Growth Adj:	2.91 2.91	2.91	1.32 1.32	1.32	1.00 1.00	1.00	1.00 1.00 1.00
Initial Bse:	41 1280	0	0 528	37	1 0	1 0	0 0 0
Added Vol:	0 5	0	0 4	0	0 0	0 0	0 0 0
PasserByVol:	0 0	0	0 0	0	0 0	0 0	0 0 0
Initial Fut:	41 1285	0	0 532	37	1 0	1 0	0 0 0
User Adj:	1.00 1.00	1.00	1.00 1.00	1.00	1.00 1.00	1.00	1.00 1.00 1.00
PHF Adj:	0.90 0.90	0.90	0.90 0.90	0.90	0.90 0.90	0.90	0.90 0.90 0.90
PHF Volume:	45 1428	0	0 591	41	1 0	1 0	0 0 0
Reduct Vol:	0 0	0	0 0	0	0 0	0 0	0 0 0
Reduced Vol:	45 1428	0	0 591	41	1 0	1 0	0 0 0
PCE Adj:	1.00 1.00	1.00	1.00 1.00	1.00	1.00 1.00	1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00	1.00	1.00 1.00	1.00	1.00 1.00	1.00	1.00 1.00 1.00
Final Vol.:	45 1428	0	0 591	41	1 0	1 0	0 0 0

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Saturation Flow Module:

Sat/Lane:	1900 1900	1900	1900 1900	1900	1900 1900	1900	1900 1900 1900
Adjustment:	0.66 1.00	1.00	1.00 0.89	0.89	0.77 1.00	0.77	1.00 1.00 1.00
Lanes:	1.00 1.00	0.00	0.00 0.94	0.06	0.50 0.00	0.50	0.00 0.00 0.00
Final Sat.:	1248 1900	0	0 1583	110	731 0	731	0 0 0

-----

Capacity Analysis Module:

Vol/Sat:	0.04 0.75	0.00	0.00 0.37	0.37	0.00 0.00	0.00	0.00 0.00 0.00
Crit Moves:	****		****		****		****
Green/Cycle:	0.60 0.60	0.00	0.00 0.60	0.60	0.22 0.00	0.22	0.00 0.00 0.00
Volume/Cap:	0.06 1.25	0.00	0.00 0.62	0.62	0.01 0.00	0.01	0.00 0.00 0.00
Delay/Veh:	3.8 130	0.0	0.0 7.0	7.0	13.6 0.0	13.6	0.0 0.0 0.0
User DelAdj:	1.00 1.00	1.00	1.00 1.00	1.00	1.00 1.00	1.00	1.00 1.00 1.00
AdjDel/Veh:	3.8 130	0.0	0.0 7.0	7.0	13.6 0.0	13.6	0.0 0.0 0.0
DesignQueue:	0 18	0	0 6	0	0 0	0	0 0 0

\*\*\*\*\*

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #14 Telegraph Ave./ 19th St.  
\*\*\*\*\*

Cycle (sec):	45	Critical Vol./Cap. (X):	1.187
Loss Time (sec):	8 (Y+R = 6 sec)	Average Delay (sec/veh):	95.1
Optimal Cycle:	120	Level Of Service:	F

\*\*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R

-----

Control:	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0 17	0 0	0 0	0 22
Lanes:	1 0 1 0 0	0 0 0 1 0	0 0 0 0 0	0 1 0 1 0

-----

Volume Module:

Base Vol:	57 355	0	0 377	46	0 0	0 28	552 122
Growth Adj:	1.06 1.06	1.06	1.32 1.32	1.32	1.00 1.00	1.00	2.38 2.38 2.38
Initial Bse:	60 376	0	0 498	61	0 0	0 67	1314 290
Added Vol:	0 2	0	0 4	0	0 0	0 0	1 2
PasserByVol:	0 0	0	0 0	0	0 0	0 0	0 0
Initial Fut:	60 378	0	0 502	61	0 0	0 67	1315 292
User Adj:	1.00 1.00	1.00	1.00 1.00	1.00	1.00 1.00	1.00	1.00 1.00 1.00
PHF Adj:	0.97 0.97	0.97	0.93 0.93	0.93	1.00 1.00	1.00	0.94 0.94 0.94
PHF Volume:	62 390	0	0 539	65	0 0	0 71	1399 311
Reduct Vol:	0 0	0	0 0	0	0 0	0 0	0 0
Reduced Vol:	62 390	0	0 539	65	0 0	0 71	1399 311
PCE Adj:	1.00 1.00	1.00	1.00 1.00	1.00	1.00 1.00	1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00	1.00	1.00 1.00	1.00	1.00 1.00	1.00	1.00 1.00 1.00
Final Vol.:	62 390	0	0 539	65	0 0	0 71	1399 311

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Saturation Flow Module:

Sat/Lane:	1900 1900	1900	1900 1900	1900	1900 1900	1900	1900 1900 1900
Adjustment:	0.79 0.85	1.00	1.00 0.75	0.75	1.00 1.00	1.00	0.83 0.83 0.83
Lanes:	1.00 1.00	0.00	0.00 0.89	0.11	0.00 0.00	0.00	0.08 1.57 0.35
Final Sat.:	1509 1615	0	0 1275	154	0 0	0 126	2488 553

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Capacity Analysis Module:

Vol/Sat:	0.04 0.24	0.00	0.00 0.42	0.42	0.00 0.00	0.00	0.56 0.56 0.56
Crit Moves:	****		****		****		****
Green/Cycle:	0.36 0.36	0.00	0.00 0.36	0.36	0.00 0.00	0.00	0.47 0.47 0.47
Volume/Cap:	0.11 0.67	0.00	0.00 1.17	1.17	0.00 0.00	0.00	1.20 1.20 1.20
Delay/Veh:	10.4 18.6	0.0	0.0 111	110.5	0.0 0.0	0.0	109.6 110 109.6
User DelAdj:	1.00 1.00	1.00	1.00 1.00	1.00	1.00 1.00	1.00	1.00 1.00 1.00
AdjDel/Veh:	10.4 18.6	0.0	0.0 111	110.5	0.0 0.0	0.0	109.6 110 109.6
DesignQueue:	1 7	0	0 10	1	0 0	0 1	22 5

\*\*\*\*\*

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #15 Telegraph / 18th St
Cycle (sec): 45 Critical Vol./Cap. (X): 0.699
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 7.9
Optimal Cycle: 40 Level Of Service: A
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 7 0 7 0 0 0 0
Lanes: 1 0 1 0 0 0 0 0 1 0 0 0 1 0 0 0 0 0 0
Volume Module:
Base Vol: 42 350 0 0 380 34 44 0 36 0 0 0
Growth Adj: 1.18 1.18 1.18 1.67 1.67 1.67 1.73 1.73 1.73 1.73 1.73 1.73
Initial Bse: 50 413 0 0 635 57 76 0 62 0 0 0
Added Vol: 0 2 0 0 4 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 50 415 0 0 639 57 76 0 62 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 55 461 0 0 710 63 85 0 69 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 55 461 0 0 710 63 85 0 69 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 55 461 0 0 710 63 85 0 69 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.60 1.00 1.00 1.00 0.89 0.89 0.69 1.00 0.69 1.00 1.00 1.00
Lanes: 1.00 1.00 0.00 0.00 0.92 0.08 0.55 0.00 0.45 0.00 0.00 0.00
Final Sat.: 1146 1900 0 0 1551 138 719 0 588 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.05 0.24 0.00 0.00 0.46 0.46 0.12 0.00 0.12 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.65 0.65 0.00 0.00 0.65 0.65 0.17 0.00 0.17 0.00 0.00 0.00
Volume/Cap: 0.07 0.37 0.00 0.00 0.70 0.70 0.70 0.00 0.70 0.00 0.00 0.00
Delay/Veh: 2.9 3.7 0.0 0.0 7.0 7.0 27.2 0.0 27.2 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 2.9 3.7 0.0 0.0 7.0 7.0 27.2 0.0 27.2 0.0 0.0 0.0
DesignQueue: 0 4 0 0 7 1 2 0 1 0 0 0

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #16 Telegraph Ave./ 17th St.
Cycle (sec): 45 Critical Vol./Cap. (X): 0.655
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 12.5
Optimal Cycle: 37 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 1 1 0 1 0 1 0 0 0 1 1 1 0 0 0 0 0 0
Volume Module:
Base Vol: 0 363 4 92 265 0 60 451 66 0 0 0
Growth Adj: 1.18 1.18 1.18 1.67 1.67 1.67 1.73 1.73 1.73 1.00 1.00 1.00
Initial Bse: 0 428 5 154 443 0 104 780 114 0 0 0
Added Vol: 0 2 0 2 2 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 430 5 156 445 0 104 780 114 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 478 5 173 494 0 115 867 127 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 478 5 173 494 0 115 867 127 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 478 5 173 494 0 115 867 127 0 0 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.88 0.88 0.48 0.85 1.00 0.84 0.84 0.84 1.00 1.00 1.00
Lanes: 0.00 1.98 0.02 1.00 1.00 0.00 0.31 2.35 0.34 0.00 0.00 0.00
Final Sat.: 0 3296 36 920 1615 0 495 3722 545 0 0 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.15 0.15 0.19 0.31 0.00 0.23 0.23 0.23 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.47 0.47 0.47 0.47 0.00 0.36 0.36 0.36 0.00 0.00 0.00
Volume/Cap: 0.00 0.31 0.31 0.40 0.66 0.00 0.66 0.66 0.66 0.00 0.00 0.00
Delay/Veh: 0.0 8.0 8.0 10.7 13.6 0.0 14.2 14.2 14.2 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 8.0 8.0 10.7 13.6 0.0 14.2 14.2 14.2 0.0 0.0 0.0
DesignQueue: 0 7 0 2 7 0 2 15 2 0 0 0

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #17 Broadway/ W. Grand Ave.

Cycle (sec): 85 Critical Vol./Cap. (X): 1.222  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 50.7  
Optimal Cycle: 120 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Min. Green:	0	37	0	0	37	0	0	42	0	0	42	0
Lanes:	1	0	2	0	1	1	0	1	1	0	1	0

Volume Module:

Base Vol:	301	734	200	59	494	125	136	585	86	84	356	33
Growth Adj:	1.12	1.12	1.12	1.04	1.04	1.04	1.62	1.62	1.62	1.34	1.34	1.34
Initial Bse:	337	822	224	61	514	130	220	948	139	113	477	44
Added Vol:	0	0	0	0	0	1	1	3	0	0	5	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	337	822	224	61	514	131	221	951	139	113	482	44
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	375	913	249	68	571	146	246	1056	155	125	536	49
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	375	913	249	68	571	146	246	1056	155	125	536	49
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	375	913	249	68	571	146	246	1056	155	125	536	49

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.28	0.95	0.72	0.19	0.85	0.85	0.31	0.86	0.86	0.46	0.46	0.46
Lanes:	1.00	2.00	1.00	1.00	1.59	0.41	1.00	1.74	0.26	0.35	1.51	0.14
Final Sat.:	530	3610	1373	365	2581	658	580	2857	419	310	1330	122

Capacity Analysis Module:

Vol/Sat:	0.71	0.25	0.18	0.19	0.22	0.22	0.42	0.37	0.37	0.40	0.40	0.40
Crit Moves:	****											
Green/Cycle:	0.43	0.43	0.43	0.43	0.43	0.43	0.48	0.48	0.48	0.48	0.48	0.48
Volume/Cap:	1.66	0.59	0.43	0.44	0.52	0.52	0.88	0.77	0.77	0.83	0.83	0.83
Delay/Veh:	341.5	20.9	19.8	26.5	19.9	19.9	50.3	22.1	22.1	29.0	29.0	29.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	341.5	20.9	19.8	26.5	19.9	19.9	50.3	22.1	22.1	29.0	29.0	29.0
DesignQueue:	11	27	7	2	17	4	6	29	4	3	14	1

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #18 Broadway/ 20th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.493  
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 12.6  
Optimal Cycle: 56 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Min. Green:	0	30	0	0	30	0	0	18	0	0	18	0
Lanes:	0	1	0	1	0	1	0	1	0	0	1	0

Volume Module:

Base Vol:	27	360	91	36	573	40	38	249	43	70	196	84
Growth Adj:	1.22	1.22	1.22	1.17	1.17	1.17	1.01	1.01	1.01	1.02	1.02	1.02
Initial Bse:	33	439	111	42	670	47	38	251	43	71	200	86
Added Vol:	0	0	0	0	0	0	0	1	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	33	439	111	42	670	47	38	252	43	71	202	86
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.96	0.96	0.96	0.94	0.94	0.94	0.92	0.92	0.92
PHF Volume:	35	472	119	44	698	49	41	269	46	78	219	93
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	472	119	44	698	49	41	269	46	78	219	93
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	35	472	119	44	698	49	41	269	46	78	219	93

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.67	0.67	0.67	0.34	0.76	0.76	0.66	0.66	0.66	0.61	0.61	0.61
Lanes:	0.11	1.51	0.38	1.00	1.87	0.13	0.23	1.51	0.26	0.40	1.12	0.48
Final Sat.:	144	1914	484	645	2706	189	290	1907	328	458	1295	550

Capacity Analysis Module:

Vol/Sat:	0.25	0.25	0.25	0.07	0.26	0.26	0.14	0.14	0.14	0.17	0.17	0.17
Crit Moves:	****											
Green/Cycle:	0.52	0.52	0.52	0.52	0.52	0.52	0.34	0.34	0.34	0.34	0.34	0.34
Volume/Cap:	0.47	0.47	0.47	0.13	0.49	0.49	0.41	0.41	0.41	0.49	0.49	0.49
Delay/Veh:	10.3	10.3	10.3	8.1	10.3	10.3	16.5	16.5	16.5	17.8	17.8	17.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.3	10.3	10.3	8.1	10.3	10.3	16.5	16.5	16.5	17.8	17.8	17.8
DesignQueue:	1	8	2	1	12	1	6	1	6	2	5	2

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #19 Broadway/ 19th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.904  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 24.9  
Optimal Cycle: 80 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	21	0	0	21	0	0	0	0	0	31	0
Lanes:	0	1	1	0	0	2	0	0	0	0	1	0

Volume Module:

Base Vol:	48	383	0	0	695	60	0	0	0	93	582	111
Growth Adj:	1.35	1.35	1.35	1.14	1.14	1.14	1.00	1.00	1.00	1.79	1.79	1.79
Initial Bse:	65	517	0	0	792	68	0	0	0	166	1042	199
Added Vol:	0	0	0	0	0	0	0	0	0	0	3	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	65	517	0	0	792	68	0	0	0	166	1045	199
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	72	575	0	0	880	76	0	0	0	185	1161	221
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	72	575	0	0	880	76	0	0	0	185	1161	221
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	72	575	0	0	880	76	0	0	0	185	1161	221

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.61	0.61	1.00	1.00	0.81	0.81	1.00	1.00	1.00	0.82	0.82	0.82
Lanes:	0.22	1.78	0.00	0.00	2.76	0.24	0.00	0.00	0.00	0.24	1.48	0.28
Final Sat.:	257	2047	0	0	4246	367	0	0	0	368	2307	439

Capacity Analysis Module:

Vol/Sat:	0.28	0.28	0.00	0.00	0.21	0.21	0.00	0.00	0.00	0.50	0.50	0.50
Crit Moves:	****											
Green/Cycle:	0.35	0.35	0.00	0.00	0.35	0.35	0.00	0.00	0.00	0.52	0.52	0.52
Volume/Cap:	0.80	0.80	0.00	0.00	0.59	0.59	0.00	0.00	0.00	0.97	0.97	0.97
Delay/Veh:	23.4	23.4	0.0	0.0	16.6	16.6	0.0	0.0	0.0	30.7	30.7	30.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	23.4	23.4	0.0	0.0	16.6	16.6	0.0	0.0	0.0	30.7	30.7	30.7
DesignQueue:	2	13	0	0	20	2	0	0	0	3	21	4

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
(With TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #20 Broadway/ 17th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.675  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 15.7  
Optimal Cycle: 60 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	27	0	0	27	0	0	25	0	0	0	0
Lanes:	0	0	1	0	1	2	0	1	1	0	0	0

Volume Module:

Base Vol:	0	358	82	109	635	0	80	398	63	0	0	0
Growth Adj:	1.07	1.07	1.07	1.07	1.07	1.07	1.80	1.80	1.80	1.00	1.00	1.00
Initial Bse:	0	383	88	117	679	0	144	716	113	0	0	0
Added Vol:	0	0	0	0	0	0	0	2	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	383	88	117	679	0	144	718	113	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	426	97	130	755	0	160	798	126	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	426	97	130	755	0	160	798	126	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	426	97	130	755	0	160	798	126	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.75	0.75	0.59	0.59	1.00	0.88	0.75	0.75	1.00	1.00	1.00
Lanes:	0.00	1.63	0.37	0.44	2.56	0.00	1.00	1.73	0.27	0.00	0.00	0.00
Final Sat.:	0	2313	530	494	2878	0	1676	2475	391	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.18	0.18	0.26	0.26	0.00	0.10	0.32	0.32	0.00	0.00	0.00
Crit Moves:	****											
Green/Cycle:	0.00	0.45	0.45	0.45	0.45	0.00	0.42	0.42	0.42	0.00	0.00	0.00
Volume/Cap:	0.00	0.41	0.41	0.58	0.58	0.00	0.23	0.77	0.77	0.00	0.00	0.00
Delay/Veh:	0.0	12.1	12.1	13.9	13.9	0.0	12.1	20.0	20.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	12.1	12.1	13.9	13.9	0.0	12.1	20.0	20.0	0.0	0.0	0.0
DesignQueue:	0	8	2	2	14	0	3	17	3	0	0	0

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #21 Broadway/ 15th St.  
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Cycle (sec):	60	Critical Vol./Cap. (X):	0.502
Loss Time (sec):	8 (Y+R = 9 sec)	Average Delay (sec/veh):	10.1
Optimal Cycle:	33	Level Of Service:	B

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R

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Control:	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0 25 0	0 25 0	0 0 0	0 0 0
Lanes:	0 0 2 0 0	0 0 2 0 0	0 0 0 0 1	0 0 0 0 2

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Volume Module:

Base Vol:	0 556 0	0 720 0	0 0 0	0 0 0	250
Growth Adj:	1.07 1.07 1.07	1.01 1.01 1.01	1.00 1.00 1.00	1.31 1.31 1.31	
Initial Bse:	0 595 0	0 727 0	0 0 0	0 0 0	328
Added Vol:	0 2 0	0 2 0	0 0 0	0 0 0	0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0	0
Initial Fut:	0 597 0	0 729 0	0 0 0	0 0 0	328
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	
PHF Adj:	0.90 0.90 0.90	0.90 0.90 0.90	0.90 0.90 0.90	0.90 0.90 0.90	
PHF Volume:	0 663 0	0 810 0	0 0 0	0 0 0	364
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0	0
Reduced Vol:	0 663 0	0 810 0	0 0 0	0 0 0	364
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	
Final Vol.:	0 663 0	0 810 0	0 0 0	0 0 0	364

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Saturation Flow Module:

Sat/Lane:	1900 1900	1900 1900	1900 1900	1900 1900
Adjustment:	1.00 0.77 1.00	1.00 0.77 1.00	1.00 1.00 1.00	1.00 1.00 0.61
Lanes:	0.00 2.00 0.00	0.00 2.00 0.00	0.00 0.00 1.00	0.00 0.00 2.00
Final Sat.:	0 2924 0	0 2924 0	0 0 1900	0 0 2302

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Capacity Analysis Module:

Vol/Sat:	0.00 0.23 0.00	0.00 0.28 0.00	0.00 0.00 0.00	0.00 0.00 0.16
Crit Moves:	****	****	****	****
Green/Cycle:	0.00 0.55 0.00	0.00 0.55 0.00	0.00 0.00 0.00	0.00 0.00 0.31
Volume/Cap:	0.00 0.41 0.00	0.00 0.50 0.00	0.00 0.00 0.00	0.00 0.00 0.50
Delay/Veh:	0.0 8.0 0.0	0.0 8.6 0.0	0.0 0.0 0.0	0.0 0.0 17.3
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	0.0 8.0 0.0	0.0 8.6 0.0	0.0 0.0 0.0	0.0 0.0 17.3
DesignQueue:	0 10 0	0 13 0	0 0 0	0 0 9

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Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #22 Broadway/ 14th St.  
\*\*\*\*\*

Cycle (sec):	60	Critical Vol./Cap. (X):	0.598
Loss Time (sec):	8 (Y+R = 8 sec)	Average Delay (sec/veh):	14.1
Optimal Cycle:	60	Level Of Service:	B

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R

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Control:	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0 26 0	0 26 0	0 26 0	0 26 0
Lanes:	0 0 1 1 0	0 0 2 1 0	0 0 1 1 0	0 0 1 1 0

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Volume Module:

Base Vol:	0 433 29	0 921 87	0 273 152	0 397 106
Growth Adj:	1.07 1.07 1.07	1.04 1.04 1.04	1.02 1.02 1.02	1.25 1.25 1.25
Initial Bse:	0 463 31	0 958 90	0 278 155	0 496 133
Added Vol:	0 1 0	0 2 0	0 0 0	0 0 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	0 464 31	0 960 90	0 278 155	0 496 134
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.90 0.90 0.90	0.90 0.90 0.90	0.90 0.90 0.90	0.90 0.90 0.90
PHF Volume:	0 516 34	0 1066 101	0 309 172	0 551 148
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	0 516 34	0 1066 101	0 309 172	0 551 148
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	0 516 34	0 1066 101	0 309 172	0 551 148

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Saturation Flow Module:

Sat/Lane:	1900 1900	1900 1900	1900 1900	1900 1900
Adjustment:	1.00 0.76 0.76	1.00 0.75 0.75	1.00 0.73 0.73	1.00 0.74 0.74
Lanes:	0.00 1.87 0.13	0.00 2.74 0.26	0.00 1.28 0.72	0.00 1.58 0.42
Final Sat.:	0 2716 182	0 3930 370	0 1777 989	0 2230 600

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Capacity Analysis Module:

Vol/Sat:	0.00 0.19 0.19	0.00 0.27 0.27	0.00 0.17 0.17	0.00 0.25 0.25
Crit Moves:	****	****	****	****
Green/Cycle:	0.00 0.43 0.43	0.00 0.43 0.43	0.00 0.43 0.43	0.00 0.43 0.43
Volume/Cap:	0.00 0.44 0.44	0.00 0.63 0.63	0.00 0.40 0.40	0.00 0.57 0.57
Delay/Veh:	0.0 13.0 13.0	0.0 14.8 14.8	0.0 12.7 12.7	0.0 14.7 14.7
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	0.0 13.0 13.0	0.0 14.8 14.8	0.0 12.7 12.7	0.0 14.7 14.7
DesignQueue:	0 10 1	0 21 2	0 6 3	0 11 3

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Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #23 Frontage Rd./ W. Grand Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 1.531
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 223.7
Optimal Cycle: 120 Level Of Service: F

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control (Split Phase, Protected, Protected), Rights, Min. Green, and Lanes.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across four approaches.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. for each approach.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue for each approach.

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #24 Mandela Pkwy/ W. Grand Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 1.171
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 54.8
Optimal Cycle: 120 Level Of Service: D

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control (Permitted, Permitted, Permitted, Permitted), Rights, Min. Green, and Lanes.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol. across four approaches.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. for each approach.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue for each approach.

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #25 Northgate Ave./ W. Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.924
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 77.0
Optimal Cycle: 106 Level Of Service: E

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #26 Webster St./Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.776
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 25.3
Optimal Cycle: 75 Level Of Service: C

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #27 Harrison St./ Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 1.101
Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 55.8
Optimal Cycle: 120 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Lanes.

Volume Module table with 10 columns (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol) and 10 rows.

Saturation Flow Module table with 10 columns (Sat/Lane, Adjustment, Lanes, Final Sat) and 4 rows.

Capacity Analysis Module table with 10 columns (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue) and 8 rows.

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #28 El Embarcadero / Grand Ave.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.956
Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 31.7
Optimal Cycle: 120 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Lanes.

Volume Module table with 10 columns (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol) and 10 rows.

Saturation Flow Module table with 10 columns (Sat/Lane, Adjustment, Lanes, Final Sat) and 4 rows.

Capacity Analysis Module table with 10 columns (Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue) and 8 rows.

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #29 MacArthur Blvd./ Grand Ave.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.904
Loss Time (sec): 12 (Y+R = 8 sec) Average Delay (sec/veh): 31.7
Optimal Cycle: 98 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 25 0 0 20 0 15 20 0
Lanes: 0 0 0 0 0 1 1 1 0 0 0 2 0 1 1 0 3 0 0
Volume Module: >> Count Date: 9 Nov 2000 <<
Base Vol: 0 0 0 278 650 225 0 657 497 239 710 0
Growth Adj: 1.00 1.00 1.00 1.09 1.09 1.09 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 0 0 0 303 709 245 0 703 532 256 760 0
Added Vol: 0 0 0 0 0 0 0 0 0 3 0 2 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 303 709 245 0 703 535 256 762 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 0 0 319 746 258 0 740 563 269 802 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 319 746 258 0 740 563 269 802 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 319 746 258 0 740 563 269 802 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.86 0.86 0.86 1.00 0.95 0.85 0.95 0.91 1.00
Lanes: 0.00 0.00 0.00 0.72 1.69 0.59 0.00 2.00 1.00 1.00 3.00 0.00
Final Sat.: 0 0 0 1179 2757 954 0 3610 1615 1805 5187 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.27 0.27 0.27 0.00 0.20 0.35 0.15 0.15 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.00 0.00 0.31 0.31 0.31 0.00 0.35 0.35 0.19 0.54 0.00
Volume/Cap: 0.00 0.00 0.00 0.87 0.87 0.87 0.00 0.59 1.00 0.80 0.29 0.00
Delay/Veh: 0.0 0.0 0.0 32.7 32.7 32.7 0.0 23.2 62.8 48.4 10.4 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 32.7 32.7 32.7 0.0 23.2 62.8 48.4 10.4 0.0
DesignQueue: 0 0 0 10 24 8 0 23 18 10 17 0

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
(With TLBS)

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #30 MacArthur Blvd./ Lake Shore Ave.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.754
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 27.1
Optimal Cycle: 76 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Prot+Permit
Rights: Include Ignore Include Include
Min. Green: 0 0 0 0 0 22 0 0 30 0 12 30 0
Lanes: 0 0 0 0 0 1 1 2 0 1 0 0 2 0 1 1 0 2 0 0
Volume Module: >> Count Date: 9 Jul 2003 <<
Base Vol: 0 0 0 220 1021 104 0 485 385 320 512 0
Growth Adj: 1.00 1.00 1.00 1.04 1.04 1.04 1.23 1.23 1.23 1.08 1.08 1.08
Initial Bse: 0 0 0 229 1062 108 0 597 474 346 553 0
Added Vol: 0 0 0 0 3 0 0 0 0 0 3 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 229 1065 108 0 597 474 346 556 0
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.00 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 0 0 0 248 1155 0 0 647 514 375 603 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 248 1155 0 0 647 514 375 603 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 248 1155 0 0 647 514 375 603 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.77 0.77 1.00 1.00 0.95 0.85 0.49 0.95 1.00
Lanes: 0.00 0.00 0.00 1.00 3.00 1.00 0.00 2.00 1.00 1.00 2.00 0.00
Final Sat.: 0 0 0 1470 4409 1900 0 3610 1615 930 3610 0
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.17 0.26 0.00 0.00 0.18 0.32 0.40 0.17 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.00 0.00 0.28 0.28 0.00 0.00 0.38 0.38 0.58 0.58 0.00
Volume/Cap: 0.00 0.00 0.00 0.61 0.95 0.00 0.00 0.48 0.85 0.70 0.29 0.00
Delay/Veh: 0.0 0.0 0.0 25.8 42.2 0.0 0.0 19.3 33.7 14.9 8.8 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 25.8 42.2 0.0 0.0 19.3 33.7 14.9 8.8 0.0
DesignQueue: 0 0 0 8 39 0 0 19 15 14 12 0

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
(With TLBS)

Level Of Service Computation Report

1997 HCM Operations Method (Future Volume Alternative)

Intersection #31 Lake Park Ave./ Lake Shore Ave.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.811
Loss Time (sec): 16 (Y+R = 12 sec) Average Delay (sec/veh): 41.4
Optimal Cycle: 85 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 17 Jul 2003 <<. Table with 10 columns for volume counts and 10 columns for adjustment factors.

Saturation Flow Module: Table with 10 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 10 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
(With TLBS)

Level Of Service Computation Report

1997 HCM Operations Method (Future Volume Alternative)

Intersection #32 Brush St./ 18th St.

Cycle (sec): 70 Critical Vol./Cap. (X): 0.339
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 9.6
Optimal Cycle: 61 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: Table with 10 columns for volume counts and 10 columns for adjustment factors.

Saturation Flow Module: Table with 10 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 10 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
(with TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #33 18th St./ Castro St.

Cycle (sec): 40 Critical Vol./Cap. (X): 0.986  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 51.7  
Optimal Cycle: 83 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Rights:	0 20 0			0 0 0			0 0 0			0 13 0		
Min. Green:	1 1 3			0 0 0			0 0 0			0 0 1		
Lanes:	0 0 0			0 0 0			0 0 0			0 0 1		

Volume Module:

Base Vol:	212	1698	0	0	0	0	0	0	0	115	737
Growth Adj:	1.24	1.24	1.24	1.00	1.00	1.00	1.00	1.00	1.00	1.38	1.38
Initial Bse:	263	2106	0	0	0	0	0	0	0	159	1017
Added Vol:	0	0	0	0	0	0	0	0	0	3	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	263	2106	0	0	0	0	0	0	0	162	1017
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	292	2339	0	0	0	0	0	0	0	180	1130
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	292	2339	0	0	0	0	0	0	0	180	1130
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	292	2339	0	0	0	0	0	0	0	180	1130

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.77	0.77	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.87	0.87
Lanes:	1.00	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	1.73
Final Sat.:	1470	5879	0	0	0	0	0	0	0	454	2856

Capacity Analysis Module:

Vol/Sat:	0.20	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.40
Crit Moves:	****										
Green/Cycle:	0.49	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.32
Volume/Cap:	0.41	0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.25	1.25
Delay/Veh:	6.9	11.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	134	133.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	6.9	11.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	134	133.7
DesignQueue:	4	30	0	0	0	0	0	0	0	3	19

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
(with TLBS)

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #34 MLK Jr. Way/ 18th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.472  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 13.8  
Optimal Cycle: 62 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Rights:	0 27 0			0 27 0			0 0 0			0 27 0		
Min. Green:	0 1 1			0 0 1			0 0 0			1 0 2		
Lanes:	0 0 0			0 0 1			0 0 0			0 1 0		

Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol:	63	134	0	0	182	133	0	0	0	18	725	0
Growth Adj:	1.16	1.16	1.16	1.24	1.24	1.24	1.00	1.00	1.00	1.66	1.66	1.66
Initial Bse:	73	155	0	0	226	165	0	0	0	30	1204	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	3	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	73	155	0	0	226	165	0	0	0	30	1206	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	81	173	0	0	251	183	0	0	0	33	1341	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	81	173	0	0	251	183	0	0	0	33	1341	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	81	173	0	0	251	183	0	0	0	33	1341	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	0.66	0.66	1.00	1.00	0.82	0.82	1.00	1.00	1.00	1.00	0.86	0.91
Lanes:	0.64	1.36	0.00	0.00	1.16	0.84	0.00	0.00	0.00	1.00	3.00	0.00
Final Sat.:	800	1701	0	0	1808	1321	0	0	0	1900	4928	0

Capacity Analysis Module:

Vol/Sat:	0.10	0.10	0.00	0.00	0.14	0.14	0.00	0.00	0.00	0.02	0.27	0.00
Crit Moves:	****											
Green/Cycle:	0.44	0.44	0.00	0.00	0.44	0.44	0.00	0.00	0.00	0.44	0.44	0.00
Volume/Cap:	0.23	0.23	0.00	0.00	0.32	0.32	0.00	0.00	0.00	0.04	0.62	0.00
Delay/Veh:	11.5	11.5	0.0	0.0	12.1	12.1	0.0	0.0	0.0	10.1	15.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.5	11.5	0.0	0.0	12.1	12.1	0.0	0.0	0.0	10.1	15.0	0.0
DesignQueue:	2	3	0	0	5	4	0	0	0	1	28	0

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #35 Brush St. / 17th St.  
\*\*\*\*\*

Cycle (sec): 60 Critical Vol./Cap. (X): 0.399  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 11.6  
Optimal Cycle: 48 Level Of Service: B

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Rights:												
Min. Green:	0	0	0	0	35	0	0	5	0	0	0	0
Lanes:	0	0	0	1	2	0	0	1	1	0	0	0

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	759	394	0	0	245	179	0	0	0
Growth Adj:	1.00	1.00	1.00	1.04	1.04	1.04	1.36	1.36	1.36	1.00	1.00	1.00
Initial Bse:	0	0	0	789	410	0	0	333	243	0	0	0
Added Vol:	0	0	0	0	3	0	0	1	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	789	413	0	0	334	243	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	0	877	459	0	0	371	270	0	0	0
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	877	459	0	0	371	270	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	877	459	0	0	371	270	0	0	0

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	1.00	1.00	1.00	0.77	0.77	1.00	1.00	0.89	0.89	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	2.00	0.00	0.00	1.16	0.84	0.00	0.00	0.00
Final Sat.:	0	0	0	2939	2939	0	0	1957	1426	0	0	0

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.00	0.00	0.58	0.58	0.00	0.00	0.28	0.28	0.00	0.00	0.00
Volume/Cap:	0.00	0.00	0.00	0.51	0.27	0.00	0.00	0.67	0.67	0.00	0.00	0.00
Delay/Veh:	0.0	0.0	0.0	7.6	6.2	0.0	0.0	20.9	20.9	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	7.6	6.2	0.0	0.0	20.9	20.9	0.0	0.0	0.0
DesignQueue:	0	0	0	13	7	0	0	9	7	0	0	0

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #36 17th St / Castro St/I-980 Off-Ramp  
\*\*\*\*\*

Cycle (sec): 85 Critical Vol./Cap. (X): 0.925  
Loss Time (sec): 12 (Y+R = 6 sec) Average Delay (sec/veh): 60.0  
Optimal Cycle: 111 Level Of Service: E

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Split Phase Include			Split Phase Include		
Rights:												
Min. Green:	0	10	0	0	0	0	0	20	0	0	20	0
Lanes:	0	0	1	1	0	0	0	0	0	1	0	3

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	645	31	0	0	0	0	216	707	0	0	1371
Growth Adj:	1.81	1.81	1.81	1.00	1.00	1.00	1.00	1.00	1.00	1.13	1.13	1.13
Initial Bse:	0	1167	56	0	0	0	0	216	707	0	0	1549
Added Vol:	0	0	4	0	0	0	0	0	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1167	60	0	0	0	0	216	708	0	0	1549
User Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	1167	60	0	0	0	0	216	708	0	0	1549
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1167	60	0	0	0	0	216	708	0	0	1549
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	1167	60	0	0	0	0	216	708	0	0	1549

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	1.00	0.94	0.94	1.00	1.00	1.00	0.95	0.91	1.00	1.00	0.90	0.90
Lanes:	0.00	1.90	0.10	0.00	0.00	0.00	1.00	3.00	0.00	0.00	2.86	0.14
Final Sat.:	0	3409	176	0	0	0	1805	5187	0	0	4907	243

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.32	0.32	0.00	0.00	0.00	0.00	0.24	0.24	0.00	0.00	0.30
Volume/Cap:	0.00	1.06	1.06	0.00	0.00	0.00	0.00	0.51	0.58	0.00	0.00	1.06
Delay/Veh:	0.0	71.1	71.1	0.0	0.0	0.0	0.0	29.3	29.5	0.0	0.0	68.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	71.1	71.1	0.0	0.0	0.0	0.0	29.3	29.5	0.0	0.0	68.9
DesignQueue:	0	41	2	0	0	0	0	8	26	0	0	55

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #37 MLK Jr. Way/ 17th St  
\*\*\*\*\*

Cycle (sec): 60 Critical Vol./Cap. (X): 0.255  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 11.2  
Optimal Cycle: 58 Level Of Service: B

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Min. Green:	0	25	0	0	25	0	0	25	0	0	0	0
Lanes:	0	0	1	1	1	0	0	1	2	1	0	0

Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol:	0	170	29	21	191	0	10	478	45	0	0	0
Growth Adj:	1.72	1.72	1.72	1.37	1.37	1.37	1.22	1.22	1.22	1.00	1.00	1.00
Initial Bse:	0	292	50	29	262	0	12	583	55	0	0	0
Added Vol:	0	0	0	0	0	0	0	5	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	292	50	29	262	0	12	588	55	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	325	55	32	291	0	14	654	61	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	325	55	32	291	0	14	654	61	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	325	55	32	291	0	14	654	61	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.93	0.93	0.78	0.78	1.00	0.85	0.85	0.85	1.00	1.00	1.00
Lanes:	0.00	1.71	0.29	0.20	1.80	0.00	0.07	3.59	0.34	0.00	0.00	0.00
Final Sat.:	0	3016	515	293	2669	0	121	5821	543	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.11	0.11	0.11	0.11	0.00	0.11	0.11	0.11	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.43	0.43	0.43	0.43	0.00	0.44	0.44	0.44	0.00	0.00	0.00
Volume/Cap:	0.00	0.25	0.25	0.26	0.26	0.00	0.26	0.26	0.26	0.00	0.00	0.00
Delay/Veh:	0.0	11.4	11.4	11.5	11.5	0.0	10.8	10.8	10.8	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	11.4	11.4	11.5	11.5	0.0	10.8	10.8	10.8	0.0	0.0	0.0
DesignQueue:	0	6	1	1	6	0	0	13	1	0	0	0

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #38 Jefferson St./ 17th St.  
\*\*\*\*\*

Cycle (sec): 60 Critical Vol./Cap. (X): 0.265  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 10.8  
Optimal Cycle: 59 Level Of Service: B

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Min. Green:	0	25	0	0	25	0	0	26	0	0	0	0
Lanes:	0	0	1	1	1	0	0	1	2	1	0	0

Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol:	0	157	52	7	57	0	24	429	44	0	0	0
Growth Adj:	1.72	1.72	1.72	2.30	2.30	2.30	1.23	1.23	1.23	1.00	1.00	1.00
Initial Bse:	0	270	89	16	131	0	30	528	54	0	0	0
Added Vol:	0	0	0	0	0	0	0	5	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	270	89	16	131	0	30	533	54	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	300	99	18	146	0	33	592	60	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	300	99	18	146	0	33	592	60	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	300	99	18	146	0	33	592	60	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.85	0.85	0.78	0.78	1.00	0.85	0.85	0.85	1.00	1.00	1.00
Lanes:	0.00	1.50	0.50	0.22	1.78	0.00	0.19	3.46	0.35	0.00	0.00	0.00
Final Sat.:	0	2416	800	325	2650	0	311	5605	569	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.12	0.12	0.05	0.05	0.00	0.11	0.11	0.11	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.43	0.43	0.43	0.43	0.00	0.43	0.43	0.43	0.00	0.00	0.00
Volume/Cap:	0.00	0.29	0.29	0.13	0.13	0.00	0.24	0.24	0.24	0.00	0.00	0.00
Delay/Veh:	0.0	11.1	11.1	10.2	10.2	0.0	10.8	10.8	10.8	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	11.1	11.1	10.2	10.2	0.0	10.8	10.8	10.8	0.0	0.0	0.0
DesignQueue:	0	6	1	2	0	3	0	1	1	1	0	0



Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #39 Franklin St./ 17th St.  
\*\*\*\*\*

Cycle (sec): 45 Critical Vol./Cap. (X): 0.588  
Loss Time (sec): 8 (Y+R = 7 sec) Average Delay (sec/veh): 44.1  
Optimal Cycle: 45 Level of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	23	0	0	0	0	0	14	0	0	0	0
Lanes:	0	0	3	1	0	0	0	1	1	0	0	0

Volume Module: >> Count Date: 8 Jul 2003 <<

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	440	109	0	0	0	120	455	0	0	0	0
Growth Adj:	1.49	1.49	1.49	1.00	1.00	1.00	1.54	1.54	1.54	1.00	1.00	1.00
Initial Bse:	0	656	162	0	0	0	185	701	0	0	0	0
Added Vol:	0	1	0	0	0	0	0	2	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	657	162	0	0	0	185	703	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	0	722	179	0	0	0	203	773	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	722	179	0	0	0	203	773	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	722	179	0	0	0	203	773	0	0	0	0

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	1.00	0.85	0.85	1.00	1.00	1.00	0.75	0.75	1.00	1.00	1.00	1.00
Lanes:	0.00	3.21	0.79	0.00	0.00	0.00	0.42	1.58	0.00	0.00	0.00	0.00
Final Sat.:	0	5177	1280	0	0	0	591	2247	0	0	0	0

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.51	0.51	0.00	0.00	0.00	0.31	0.31	0.00	0.00	0.00	0.00
Volume/Cap:	0.00	0.27	0.27	0.00	0.00	0.00	1.11	1.11	0.00	0.00	0.00	0.00
Delay/Veh:	0.0	6.5	6.5	0.0	0.0	0.0	78.8	78.8	0.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	6.5	6.5	0.0	0.0	0.0	78.8	78.8	0.0	0.0	0.0	0.0
DesignQueue:	0	9	2	0	0	0	4	14	0	0	0	0

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
(With TLBS)

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #40 Webster St./ 17th St.  
\*\*\*\*\*

Cycle (sec): 45 Critical Vol./Cap. (X): 0.529  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 12.5  
Optimal Cycle: 47 Level of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	22	0	0	17	0	0	0	0
Lanes:	0	0	0	0	1	3	0	0	1	1	0	0

Volume Module: >> Count Date: 8 Jul 2003 <<

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	94	700	0	0	354	219	0	0	0
Growth Adj:	1.00	1.00	1.00	1.11	1.11	1.11	1.31	1.31	1.31	1.00	1.00	1.00
Initial Bse:	0	0	0	104	777	0	0	464	287	0	0	0
Added Vol:	0	0	0	0	0	0	0	1	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	104	777	0	0	465	288	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	0	116	863	0	0	516	320	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	116	863	0	0	516	320	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	116	863	0	0	516	320	0	0	0

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	1.00	1.00	1.00	0.74	0.74	1.00	1.00	0.83	0.83	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.47	3.53	0.00	0.00	1.23	0.77	0.00	0.00	0.00
Final Sat.:	0	0	0	670	4988	0	0	1944	1204	0	0	0

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.00	0.00	0.47	0.47	0.00	0.00	0.36	0.36	0.00	0.00	0.00
Volume/Cap:	0.00	0.00	0.00	0.37	0.37	0.00	0.00	0.73	0.73	0.00	0.00	0.00
Delay/Veh:	0.0	0.0	0.0	8.4	8.4	0.0	0.0	17.3	17.3	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	8.4	8.4	0.0	0.0	17.3	17.3	0.0	0.0	0.0
DesignQueue:	0	0	0	2	12	0	0	9	6	0	0	0

LEVEL OF SERVICE CALCULATION WORKSHEETS  
YEAR 2025 PLUS PROJECT CONDITIONS

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #1 San Pablo Ave. / 31st St.

Cycle (sec): 75 Critical Vol./Cap. (X): 0.436  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 10.4  
Optimal Cycle: 75 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 9 Jul 2003 <<. Table with 10 columns for various traffic metrics like Base Vol, Growth Adj, etc.

Saturation Flow Module: Table with 10 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 10 columns for Vol/Sat, Crit Moves, Green/Cycle, etc.

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #2 San Pablo Ave. / Market St.

Cycle (sec): 75 Critical Vol./Cap. (X): 0.320  
Loss Time (sec): 8 (Y+R = 10 sec) Average Delay (sec/veh): 10.2  
Optimal Cycle: 73 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 9 Jul 2003 <<. Table with 10 columns for various traffic metrics like Base Vol, Growth Adj, etc.

Saturation Flow Module: Table with 10 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 10 columns for Vol/Sat, Crit Moves, Green/Cycle, etc.

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #3 San Pablo Ave. / 27th

Cycle (sec): 75 Critical Vol./Cap. (X): 0.378  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 11.2  
Optimal Cycle: 75 Level Of Service: B

Table with columns: Approach (North, South, East, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 1 Jan 2003 <<  
Base Vol: 19 413 7 119 611 3 1 21 24 32 12 110  
Growth Adj: 1.43 1.43 1.43 1.53 1.53 1.53 1.31 1.31 1.31 1.38 1.38 1.38  
Initial Bse: 27 591 10 182 935 5 1 28 31 44 17 152  
Added Vol: 7 53 0 0 13 0 0 0 2 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 34 644 10 182 948 5 1 28 33 44 17 152  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90  
PHF Volume: 38 715 11 202 1053 5 1 31 37 49 18 169  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 38 715 11 202 1053 5 1 31 37 49 18 169  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 38 715 11 202 1053 5 1 31 37 49 18 169

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.81 0.81 0.81 0.32 0.95 0.95 0.82 0.82 0.82 0.76 1.00 0.85  
Lanes: 0.10 1.87 0.03 1.00 1.99 0.01 0.02 0.44 0.54 1.00 1.00 1.00  
Final Sat.: 154 2896 45 606 3589 17 33 692 842 1436 1900 1615

Capacity Analysis Module:  
Vol/Sat: 0.25 0.25 0.25 0.33 0.29 0.29 0.04 0.04 0.04 0.03 0.01 0.10  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.60 0.60 0.60 0.60 0.60 0.60 0.29 0.29 0.29 0.29 0.29 0.29  
Volume/Cap: 0.41 0.41 0.41 0.56 0.49 0.49 0.15 0.15 0.15 0.12 0.03 0.36  
Delay/Veh: 8.6 8.6 8.6 15.0 9.3 9.3 20.3 20.3 20.3 20.0 19.0 23.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 8.6 8.6 8.6 15.0 9.3 9.3 20.3 20.3 20.3 20.0 19.0 23.0  
DesignQueue: 1 13 0 3 19 0 0 1 1 1 1 5

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #4 San Pablo Ave./ West St./25th St

Cycle (sec): 80 Critical Vol./Cap. (X): 0.371  
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 21.4  
Optimal Cycle: 83 Level Of Service: C

Table with columns: Approach (North, South, East, West Bound), Movement (L, T, R), Control (Permitted, Include, Split Phase), Rights, Min. Green, Lanes.

Volume Module: >> Count Date: 9 Jul 2003 <<  
Base Vol: 0 358 66 12 426 0 30 0 7 48 0 73  
Growth Adj: 1.03 1.03 1.03 1.32 1.32 1.32 1.80 1.80 1.80 1.42 1.42 1.42  
Initial Bse: 0 369 68 16 562 0 54 0 13 68 0 104  
Added Vol: 0 60 18 0 15 0 0 0 0 4 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 0 429 86 16 577 0 54 0 13 72 0 104  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91  
PHF Volume: 0 472 95 17 636 0 59 0 14 79 0 114  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 472 95 17 636 0 59 0 14 79 0 114  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 0 472 95 17 636 0 59 0 14 79 0 114

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.95 0.83 0.83 0.80 0.80 0.95 0.67 1.00 0.67 0.95 1.00 0.68  
Lanes: 0.00 1.67 0.33 0.05 1.95 0.00 0.81 0.00 0.19 1.00 0.00 1.00  
Final Sat.: 0 2639 529 81 2944 0 1035 0 242 1805 0 1292

Capacity Analysis Module:  
Vol/Sat: 0.00 0.18 0.18 0.22 0.22 0.00 0.06 0.00 0.06 0.04 0.00 0.09  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.00 0.39 0.39 0.39 0.39 0.00 0.27 0.00 0.27 0.20 0.00 0.20  
Volume/Cap: 0.00 0.46 0.46 0.56 0.56 0.00 0.22 0.00 0.22 0.22 0.00 0.43  
Delay/Veh: 0.0 19.4 19.4 20.6 20.6 0.0 24.1 0.0 24.1 27.7 0.0 29.9  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 19.4 19.4 20.6 20.6 0.0 24.1 0.0 24.1 27.7 0.0 29.9  
DesignQueue: 0 14 3 1 19 0 2 0 0 3 0 4

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #5 San Pablo Ave./ Grand Ave

Cycle (sec): 80 Critical Vol./Cap. (X): 0.655  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 20.4  
Optimal Cycle: 80 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound), Movement (L, T, R), Control (Permitted, Include), and Lanes. Includes data for Min. Green and Lanes.

Volume Module table with 10 columns for different traffic volumes and 10 rows for various metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 10 columns for saturation flow and 10 rows for Sat/Lane, Adjustment, Lanes, etc.

Capacity Analysis Module table with 10 columns for capacity and 10 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

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Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #6 San Pablo Ave./ 20th St.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.461  
Loss Time (sec): 12 (Y+R = 25 sec) Average Delay (sec/veh): 22.0  
Optimal Cycle: 87 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound), Movement (L, T, R), Control (Permitted, Include, Ignore), and Lanes. Includes data for Min. Green and Lanes.

Volume Module table with 10 columns for different traffic volumes and 10 rows for various metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 10 columns for saturation flow and 10 rows for Sat/Lane, Adjustment, Lanes, etc.

Capacity Analysis Module table with 10 columns for capacity and 10 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

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Uptown Project Traffic Impact Analysis
Year 2025 plus Project - AM Peak Hour

Level Of Service Computation Report

1997 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 San Pablo / Williams

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 0 1 0 0 0 2 0 0 0 0 0 0 0 0 0 0 0 1

Volume Module: >> Count Date: 30 Jul 2003 <<
Base Vol: 0 220 0 0 365 0 0 0 0 0 0 0 0 0 0 8
Growth Adj: 1.29 1.29 1.29 1.18 1.18 1.18 1.00 1.00 1.00 1.00 1.00 1.00

Critical Gap Module:
Critical Gp:xxxxx xxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx 6.2
FollowUpTim:xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx 3.3

Capacity Module:
Chnflct Vol: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx 385
Potent Cap.: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx 667
Move Cap.: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx 667

Level Of Service Module:
Stopped Del:xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx 11.6
LOS by Move: \* \* \* \* \*
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
Shrd StpDel:xxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx xxxxxx
Shared LOS: \* \* \* \* \*
ApproachDel: xxxxxx xxxxxx xxxxxx xxxxxx 11.6
ApproachLOS: \* \* \* \* \* B

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - AM Peak Hour

Level Of Service Computation Report

1997 HCM Operations Method (Future Volume Alternative)

Intersection #8 San Pablo Ave./ 19th St.

Cycle (sec): 75 Critical Vol./Cap. (X): 0.361

Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 20.5

Optimal Cycle: 74 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 25 0 0 25 0 12 0 12 0 25 0
Lanes: 1 0 1 0 0 0 0 2 0 1 0 0 1 0 0 0 1 0 1 0

Volume Module:
Base Vol: 17 123 0 0 227 75 82 0 3 40 106 60
Growth Adj: 1.29 1.29 1.29 1.18 1.18 1.18 1.00 1.00 1.00 1.14 1.14 1.14
Initial Bse: 22 159 0 0 268 89 82 0 3 46 121 68
Added Vol: 2 29 0 0 16 42 0 0 0 48 76 37
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 24 188 0 0 284 131 82 0 3 94 197 105
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 24 188 0 0 284 131 82 0 3 94 197 105
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 24 188 0 0 284 131 82 0 3 94 197 105
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 24 188 0 0 284 131 82 0 3 94 197 105

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.57 0.85 1.00 1.00 0.95 0.72 0.73 1.00 0.73 0.83 0.83 0.83
Lanes: 1.00 1.00 0.00 0.00 2.00 1.00 0.96 0.00 0.04 0.47 1.00 0.53
Final Sat.: 1089 1615 0 0 3610 1373 1330 0 49 749 1575 843

Capacity Analysis Module:
Vol/Sat: 0.02 0.12 0.00 0.00 0.08 0.10 0.06 0.00 0.06 0.12 0.12 0.12
Crit Moves:
Green/Cycle: 0.33 0.33 0.00 0.00 0.33 0.33 0.17 0.00 0.17 0.34 0.34 0.34
Volume/Cap: 0.07 0.35 0.00 0.00 0.24 0.29 0.37 0.00 0.37 0.37 0.37 0.37
Delay/Veh: 17.4 20.6 0.0 0.0 18.6 20.0 32.2 0.0 32.2 19.7 19.7 19.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 17.4 20.6 0.0 0.0 18.6 20.0 32.2 0.0 32.2 19.7 19.7 19.7
DesignQueue: 1 5 0 0 8 4 3 0 0 3 6 3

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - AM Peak Hour

Level of Service Computation Report
1997 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 San Pablo / 18th

Average Delay (sec/veh): 3.0 Worst Case Level Of Service: B

Table with 4 columns: Approach (North, South, East, West Bound), Movement (L-T-R), Control (Uncontrolled, Stop Sign), Rights (Include), Lanes (0 0 0 1 0).

Volume Module: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Vol.

Critical Gap Module: Critical Gp, FollowUpTim.

Capacity Module: Cnflct Vol, Potent Cap., Move Cap.

Level Of Service Module: Stopped Del, LOS by Move, Movement, Shared Cap., Shrd StpDel, Shared LOS, ApproachDel, ApproachLOS.

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - AM Peak Hour

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #10 San Pablo /17th/Clay

Cycle (sec): 80 Critical Vol./Cap. (X): 0.372
Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 20.7
Optimal Cycle: 62 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound), Movement (L-T-R), Control (Permitted, Split Phase), Rights (Include), Lanes (0 0 0 1 0).

Volume Module: Base Vol, Growth Adj, Initial Bse, Added Vol, Uptown+TLBS, Initial Fut, User Adj, PHF Adj, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - AM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #11 Telegraph Ave./ W Grand Ave.

Cycle (sec): 60 Critical Vol./Cap. (X): 1.089  
Loss Time (sec): 12 (Y+R = 6 sec) Average Delay (sec/veh): 66.3  
Optimal Cycle: 140 Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	6	20	0	0	20	0	0	15	0	0	15	0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:

Base Vol:	77	225	21	64	339	70	107	779	300	99	515	41
Growth Adj:	1.84	1.84	1.84	1.21	1.21	1.21	1.26	1.26	1.26	1.75	1.75	1.75
Initial Bse:	142	414	39	77	410	85	135	982	378	173	901	72
Added Vol:	49	20	124	0	5	0	1	9	26	31	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	191	434	163	77	415	85	136	991	404	204	901	72
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	201	457	171	82	437	89	143	1043	425	215	949	76
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	201	457	171	82	437	89	143	1043	425	215	949	76
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	201	457	171	82	437	89	143	1043	425	215	949	76

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.44	0.91	0.91	0.33	0.93	0.93	0.18	0.91	0.91	0.18	0.94	0.94
Lanes:	1.00	1.45	0.55	1.00	1.66	0.34	1.00	1.42	0.58	1.00	1.85	0.15
Final Sat.:	838	2518	944	633	2923	596	346	2454	1001	346	3307	263

Capacity Analysis Module:

Vol/Sat:	0.24	0.18	0.18	0.13	0.15	0.15	0.41	0.42	0.42	0.62	0.29	0.29
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.43	0.43	0.43	0.33	0.33	0.33	0.37	0.37	0.37	0.37	0.37	0.37
Volume/Cap:	0.55	0.42	0.42	0.39	0.45	0.45	1.13	1.16	1.16	1.70	0.78	0.78
Delay/Veh:	13.3	12.0	12.0	16.5	16.0	16.0	137.3	99.6	99.6	363.4	20.0	20.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	13.3	12.0	12.0	16.5	16.0	16.0	137.3	99.6	99.6	363.4	20.0	20.0
DesignQueue:	6	9	3	2	10	2	3	25	10	5	22	2

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - AM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #12 Telegraph Ave./ 20th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.911  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 86.7  
Optimal Cycle: 71 Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	17	0	0	17	0	0	22	0	0	22	0
Lanes:	1	0	0	1	0	1	0	1	0	0	1	0

Volume Module:

Base Vol:	25	313	26	197	419	73	15	66	34	60	148	77
Growth Adj:	1.63	1.63	1.63	1.36	1.36	1.36	1.11	1.11	1.11	1.00	1.00	1.00
Initial Bse:	41	510	42	268	570	99	17	73	38	60	148	77
Added Vol:	10	69	16	0	35	20	44	28	43	3	7	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	51	579	58	268	605	119	61	101	81	63	155	78
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.94	0.94	0.94	0.90	0.90	0.90	0.93	0.93	0.93
PHF Volume:	55	623	63	285	643	127	67	113	90	68	167	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	623	63	285	643	127	67	113	90	68	167	84
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	55	623	63	285	643	127	67	113	90	68	167	84

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.28	0.84	0.84	0.24	0.86	0.86	0.68	0.68	0.68	0.71	0.71	0.71
Lanes:	1.00	0.91	0.09	1.00	1.67	0.33	0.50	0.83	0.67	0.42	1.05	0.53
Final Sat.:	526	1447	146	447	2719	536	649	1084	864	575	1415	712

Capacity Analysis Module:

Vol/Sat:	0.10	0.43	0.43	0.64	0.24	0.24	0.10	0.10	0.10	0.12	0.12	0.12
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.36	0.36	0.36	0.36	0.36	0.36	0.47	0.47	0.47	0.47	0.47	0.47
Volume/Cap:	0.29	1.19	1.19	1.76	0.65	0.65	0.22	0.22	0.22	0.25	0.25	0.25
Delay/Veh:	14.4	117	117.0	383.2	15.4	15.4	7.8	7.8	7.8	8.0	8.0	8.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	14.4	117	117.0	383.2	15.4	15.4	7.8	7.8	7.8	8.0	8.0	8.0
DesignQueue:	1	11	1	5	11	2	1	2	1	1	2	1



Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #13 Telegraph / Williams

Cycle (sec): 45 Critical Vol./Cap. (X): 1.001  
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 63.0  
Optimal Cycle: 97 Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	10	0	10	0	0	0
Lanes:	1	0	1	0	0	1	0	0	1	0	0	0

Volume Module: >> Count Date: 30 Jul 2003 <<

Base Vol:	34	370	0	0	350	172	1	0	1	0	0	0
Growth Adj:	1.63	1.63	1.63	1.57	1.57	1.57	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	55	603	0	0	550	270	1	0	1	0	0	0
Added Vol:	10	56	0	0	54	26	38	0	85	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	65	659	0	0	604	296	39	0	86	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	73	732	0	0	671	329	43	0	96	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	73	732	0	0	671	329	43	0	96	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	73	732	0	0	671	329	43	0	96	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.53	0.85	1.00	1.00	0.73	0.73	0.73	1.00	0.73	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.67	0.33	0.31	0.00	0.69	0.00	0.00	0.00
Final Sat.:	1007	1615	0	0	927	455	433	0	956	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.07	0.45	0.00	0.00	0.72	0.72	0.10	0.00	0.10	0.00	0.00	0.00
Crit Moves:	****											
Green/Cycle:	0.60	0.60	0.00	0.00	0.60	0.60	0.22	0.00	0.22	0.00	0.00	0.00
Volume/Cap:	0.12	0.76	0.00	0.00	1.20	1.20	0.45	0.00	0.45	0.00	0.00	0.00
Delay/Veh:	4.0	10.0	0.0	0.0	113	112.6	16.2	0.0	16.2	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	4.0	10.0	0.0	0.0	113	112.6	16.2	0.0	16.2	0.0	0.0	0.0
DesignQueue:	1	8	0	0	8	4	1	0	2	0	0	0

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #14 Telegraph Ave. / 19th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 1.049  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 126.3  
Optimal Cycle: 125 Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	17	0	0	17	0	0	0	0	0	20	0
Lanes:	1	0	1	0	0	1	0	0	0	0	1	0

Volume Module:

Base Vol:	146	275	0	0	321	41	0	0	0	31	174	133
Growth Adj:	1.04	1.04	1.04	1.57	1.57	1.57	1.00	1.00	1.00	1.75	1.75	1.75
Initial Bse:	152	286	0	0	504	64	0	0	0	54	305	233
Added Vol:	5	54	0	0	59	80	0	0	0	0	6	12
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	157	340	0	0	563	144	0	0	0	54	311	245
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.81	0.81	0.81	0.82	0.82	0.82	0.90	0.90	0.90	0.83	0.83	0.83
PHF Volume:	194	420	0	0	687	176	0	0	0	66	375	296
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	194	420	0	0	687	176	0	0	0	66	375	296
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	194	420	0	0	687	176	0	0	0	66	375	296

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.85	1.00	1.00	0.74	0.74	1.00	1.00	1.00	0.78	0.78	0.78
Lanes:	1.00	1.00	0.00	0.00	0.80	0.20	0.00	0.00	0.00	0.18	1.02	0.80
Final Sat.:	1702	1615	0	0	1121	287	0	0	0	263	1503	1185

Capacity Analysis Module:

Vol/Sat:	0.11	0.26	0.00	0.00	0.61	0.61	0.00	0.00	0.00	0.25	0.25	0.25
Crit Moves:	****											
Green/Cycle:	0.38	0.38	0.00	0.00	0.38	0.38	0.00	0.00	0.00	0.44	0.44	0.44
Volume/Cap:	0.30	0.69	0.00	0.00	1.62	1.62	0.00	0.00	0.00	0.56	0.56	0.56
Delay/Veh:	11.0	18.0	0.0	0.0	303	303.1	0.0	0.0	0.0	11.0	11.0	11.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.0	18.0	0.0	0.0	303	303.1	0.0	0.0	0.0	11.0	11.0	11.0
DesignQueue:	3	7	0	0	12	3	0	0	0	1	5	4

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #15 Telegraph / 18th

Cycle (sec): 45 Critical Vol./Cap. (X): 0.623  
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 21.5  
Optimal Cycle: 76 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 30 Jul 2003 <<. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, MLF Adj, Final Vol.

Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

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Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #16 Telegraph Ave. / 17th St.

Cycle (sec): 40 Critical Vol./Cap. (X): 0.660  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 11.8  
Optimal Cycle: 38 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, MLF Adj, Final Vol.

Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

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Uptown Project Traffic Impact Analysis
Year 2025 plus Project - AM Peak Hour

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #17 Broadway/ W. Grand Ave.

Cycle (sec): 85 Critical Vol./Cap. (X): 1.365
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 41.8
Optimal Cycle: 140 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 10 columns and 15 rows including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 10 columns and 5 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 10 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - AM Peak Hour

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #18 Broadway/ 20th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.549
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 13.8
Optimal Cycle: 43 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 10 columns and 15 rows including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 10 columns and 5 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 10 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #19 Broadway/ 19th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.458  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 13.4  
Optimal Cycle: 60 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	21	0	0	21	0	0	0	0	0	1	0
Lanes:	0	1	1	0	2	1	0	0	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	22	346	0	0	518	64	0	0	0	27	278	78
Growth Adj:	1.16	1.16	1.16	1.23	1.23	1.23	1.00	1.00	1.00	1.56	1.56	1.56
Initial Bse:	26	401	0	0	637	79	0	0	0	42	434	122
Added Vol:	0	0	0	0	0	1	0	0	0	0	16	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	26	401	0	0	637	80	0	0	0	42	450	122
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	28	446	0	0	708	89	0	0	0	47	500	135
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	28	446	0	0	708	89	0	0	0	47	500	135
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	28	446	0	0	708	89	0	0	0	47	500	135

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.74	0.74	1.00	1.00	0.81	0.81	1.00	1.00	1.00	0.80	0.80	0.80
Lanes:	0.12	1.88	0.00	0.00	2.67	0.33	0.00	0.00	0.00	0.14	1.46	0.40
Final Sat.:	169	2661	0	0	4079	510	0	0	0	210	2241	606

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.17	0.17	0.00	0.00	0.17	0.17	0.00	0.00	0.00	0.22	0.22	0.22
Crit Moves:	****											
Green/Cycle:	0.35	0.35	0.00	0.00	0.35	0.35	0.00	0.00	0.00	0.52	0.52	0.52
Volume/Cap:	0.48	0.48	0.00	0.00	0.50	0.50	0.00	0.00	0.00	0.43	0.43	0.43
Delay/Veh:	15.6	15.6	0.0	0.0	15.6	15.6	0.0	0.0	0.0	9.2	9.2	9.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	15.6	15.6	0.0	0.0	15.6	15.6	0.0	0.0	0.0	9.2	9.2	9.2
DesignQueue:	1	10	0	0	16	2	0	0	0	1	8	2

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #20 Broadway/ 17th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.685  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 22.3  
Optimal Cycle: 60 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	27	0	0	27	0	0	25	0	0	0	0
Lanes:	0	1	1	0	1	2	0	1	2	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	247	79	100	483	0	76	703	30	0	0	0
Growth Adj:	1.01	1.01	1.01	1.07	1.07	1.07	1.32	1.32	1.32	1.00	1.00	1.00
Initial Bse:	0	249	80	107	517	0	100	928	40	0	0	0
Added Vol:	0	0	0	0	0	0	0	67	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	249	80	107	517	0	100	995	40	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	277	89	119	574	0	111	1106	44	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	277	89	119	574	0	111	1106	44	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	277	89	119	574	0	111	1106	44	0	0	0

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.74	0.74	0.61	0.61	1.00	0.89	0.76	0.76	1.00	1.00	1.00
Lanes:	0.00	1.52	0.48	0.51	2.49	0.00	1.00	1.92	0.08	0.00	0.00	0.00
Final Sat.:	0	2136	683	601	2902	0	1700	2795	111	0	0	0

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.00	0.13	0.13	0.20	0.20	0.00	0.07	0.40	0.40	0.00	0.00	0.00
Crit Moves:	****											
Green/Cycle:	0.00	0.45	0.45	0.45	0.45	0.00	0.42	0.42	0.42	0.00	0.00	0.00
Volume/Cap:	0.00	0.29	0.29	0.44	0.44	0.00	0.16	0.95	0.95	0.00	0.00	0.00
Delay/Veh:	0.0	11.0	11.0	12.2	12.2	0.0	11.4	33.1	33.1	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	11.0	11.0	12.2	12.2	0.0	11.4	33.1	33.1	0.0	0.0	0.0
DesignQueue:	0	5	2	2	11	0	2	23	1	0	0	0

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - AM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #21 Telegraph Ave. / Broadway/ 15th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.375
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 7.8
Optimal Cycle: 33 Level Of Service: A

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Control, Rights, Min. Green, Lanes.

Table with 12 columns representing traffic movements. Rows include Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with 12 columns and 5 rows: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 12 columns and 10 rows: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - AM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #22 Broadway/ 14th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.528
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 13.2
Optimal Cycle: 60 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Control, Rights, Min. Green, Lanes.

Table with 12 columns representing traffic movements. Rows include Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with 12 columns and 5 rows: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 12 columns and 10 rows: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #23 Frontage Rd./ W. Grand Ave.

Cycle (sec): 90 Critical Vol./Cap. (X): 1.329  
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 179.4  
Optimal Cycle: 140 Level Of Service: F

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 10 columns and 15 rows including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 10 columns and 5 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 10 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #24 Mandela Pkwy/ W. Grand Ave.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.525  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 20.8  
Optimal Cycle: 118 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Approach, Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 10 columns and 15 rows including Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 10 columns and 5 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 10 columns and 10 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - AM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #25 Northgate Ave./ W. Grand Ave.

Cycle (sec): 90 Critical Vol./Cap. (X): 1.032
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 55.7
Optimal Cycle: 140 Level Of Service: E

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Table with 12 columns for traffic volume and delay metrics. Rows include Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns for saturation flow metrics. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for capacity metrics. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - AM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #26 Webster St./Grand Ave.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.800
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 37.5
Optimal Cycle: 56 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Table with 12 columns for traffic volume and delay metrics. Rows include Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns for saturation flow metrics. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for capacity metrics. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #27 Harrison St./ Grand Ave.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.991  
Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 36.7  
Optimal Cycle: 140 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	2	0	1	1	2	0	1	2	0	1

Volume Module: >> Count Date: 14 Nov 2000 <<

Base Vol:	63	717	244	8	1131	78	57	239	128	484	704	124
Growth Adj:	1.41	1.41	1.41	1.29	1.29	1.29	1.25	1.25	1.25	1.19	1.19	1.19
Initial Bse:	89	1011	344	10	1459	101	71	299	160	576	838	148
Added Vol:	0	5	0	0	1	6	23	92	0	0	22	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	89	1016	344	10	1460	107	94	391	160	576	860	148
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	94	1069	362	11	1537	112	99	411	168	606	905	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	94	1069	362	11	1537	112	99	411	168	606	905	155
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	94	1069	362	11	1537	112	99	411	168	606	905	155

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.10	0.95	0.85	0.83	0.83	0.83	0.92	0.91	0.91	0.92	0.93	0.93
Lanes:	1.00	2.00	1.00	0.02	2.78	0.20	2.00	1.42	0.58	2.00	1.71	0.29
Final Sat.:	181	3610	1615	31	4398	321	3502	2449	1003	3502	3013	517

Capacity Analysis Module:

Vol/Sat:	0.52	0.30	0.22	0.35	0.35	0.35	0.03	0.17	0.17	0.17	0.30	0.30
Crit Moves:	****											
Green/Cycle:	0.52	0.52	0.70	0.52	0.52	0.52	0.03	0.17	0.17	0.17	0.31	0.31
Volume/Cap:	0.99	0.57	0.32	0.67	0.67	0.67	0.96	0.99	0.99	0.99	0.96	0.96
Delay/Veh:	111.0	15.0	5.5	16.5	16.5	16.5	117.3	72.2	72.2	71.2	47.5	47.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	111.0	15.0	5.5	16.5	16.5	16.5	117.3	72.2	72.2	71.2	47.5	47.5
DesignQueue:	2	28	6	0	40	3	5	18	7	26	33	6

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #28 El Embarcadero/ Grand Ave.

Cycle (sec): 90 Critical Vol./Cap. (X): 0.513  
Loss Time (sec): 12 (Y+R = 8 sec) Average Delay (sec/veh): 20.3  
Optimal Cycle: 67 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Protected		
Rights:	Include			Include			Ovl			Include		
Min. Green:	15	0	0	0	0	0	0	30	0	10	30	0
Lanes:	1	0	0	0	0	0	0	2	0	1	0	2

Volume Module: >> Count Date: 9 Jul 2003 <<

Base Vol:	346	0	245	0	0	0	0	357	254	91	802	0
Growth Adj:	1.10	1.10	1.10	1.00	1.00	1.00	1.07	1.07	1.07	1.10	1.10	1.10
Initial Bse:	381	0	270	0	0	0	0	382	272	100	882	0
Added Vol:	14	0	0	0	0	0	0	92	0	0	8	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	395	0	270	0	0	0	0	474	272	100	890	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	1.00	1.00	1.00	0.91	0.91	0.91	0.90	0.90	0.90
PHF Volume:	433	0	296	0	0	0	0	518	297	111	989	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	433	0	296	0	0	0	0	518	297	111	989	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	433	0	296	0	0	0	0	518	297	111	989	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	1.00	1.00	1.00	1.00	0.95	0.68	0.95	0.85	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	1805	0	1615	0	0	0	0	3610	1292	1805	3249	0

Capacity Analysis Module:

Vol/Sat:	0.24	0.00	0.18	0.00	0.00	0.00	0.00	0.14	0.23	0.06	0.30	0.00
Crit Moves:	****											
Green/Cycle:	0.42	0.00	0.42	0.00	0.00	0.00	0.00	0.33	0.76	0.11	0.44	0.00
Volume/Cap:	0.57	0.00	0.43	0.00	0.00	0.00	0.00	0.43	0.30	0.55	0.69	0.00
Delay/Veh:	20.8	0.0	18.8	0.0	0.0	0.0	0.0	23.6	3.7	41.3	21.4	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	20.8	0.0	18.8	0.0	0.0	0.0	0.0	23.6	3.7	41.3	21.4	0.0
DesignQueue:	13	0	9	0	0	0	0	18	4	5	30	0



Uptown Project Traffic Impact Analysis
Year 2025 plus Project - AM Peak Hour

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #29 MacArthur Blvd./ Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.682
Loss Time (sec): 12 (Y+R = 8 sec) Average Delay (sec/veh): 23.2
Optimal Cycle: 74 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 9 Nov 2000 <<. Table with 10 columns for volume counts and various adjustment factors.

Saturation Flow Module: Table with 10 columns for saturation flow rates and adjustment factors.

Capacity Analysis Module: Table with 10 columns for capacity analysis metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - AM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #30 MacArthur Blvd./ Lake Shore Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.550
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 17.2
Optimal Cycle: 76 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 9 Jul 2000 <<. Table with 10 columns for volume counts and various adjustment factors.

Saturation Flow Module: Table with 10 columns for saturation flow rates and adjustment factors.

Capacity Analysis Module: Table with 10 columns for capacity analysis metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - AM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #31 Lake Park Ave./ Lake Shore Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.992  
Loss Time (sec): 16 (Y+R = 12 sec) Average Delay (sec/veh): 79.0  
Optimal Cycle: 138 Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	15	0	7	0	0	15	20	0	0	20	0
Lanes:	1	0	1	0	0	1	1	0	2	0	0	1

Volume Module: >> Count Date: 17 Jul 2003 <<

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	483	585	212	30	0	20	302	343	0	0	431	291
Growth Adj:	1.03	1.03	1.03	1.18	1.18	1.18	1.02	1.02	1.02	1.14	1.14	1.14
Initial Bse:	497	603	218	35	0	24	308	350	0	0	491	332
Added Vol:	14	8	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	511	611	218	35	0	24	308	350	0	0	491	332
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	538	643	230	37	0	25	324	368	0	0	517	349
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	538	643	230	37	0	25	324	368	0	0	517	349
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	538	643	230	37	0	25	324	368	0	0	517	349

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.95	1.00	1.00	0.89	0.89
Lanes:	1.00	1.00	1.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.19	0.81
Final Sat.:	1805	1900	1615	1805	0	1615	1805	3610	0	0	2026	1368

Capacity Analysis Module:

Vol/Sat:	0.30	0.34	0.14	0.02	0.00	0.02	0.18	0.10	0.00	0.00	0.26	0.26
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.27	0.27	0.27	0.09	0.00	0.09	0.19	0.44	0.00	0.00	0.25	0.25
Volume/Cap:	1.08	1.23	0.52	0.24	0.00	0.18	0.96	0.23	0.00	0.00	1.02	1.02
Delay/Veh:	94.2	148	25.6	34.8	0.0	34.4	70.0	14.2	0.0	0.0	66.4	66.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	94.2	148	25.6	34.8	0.0	34.4	70.0	14.2	0.0	0.0	66.4	66.4
DesignQueue:	19	23	8	2	0	1	12	9	0	0	18	12

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - AM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #32 Brush St./ 18th St.

Cycle (sec): 75 Critical Vol./Cap. (X): 0.614  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 11.6  
Optimal Cycle: 63 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	45	0	0	0	0	0	10	0
Lanes:	0	0	0	0	3	1	0	0	0	1	0	0

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	0	0	0	1890	154	0	0	0	0	62	143
Growth Adj:	1.00	1.00	1.00	1.16	1.16	1.16	1.00	1.00	1.00	2.01	2.01	2.01
Initial Bse:	0	0	0	0	2192	179	0	0	0	0	125	287
Added Vol:	0	0	0	0	0	0	0	0	0	0	113	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	2192	179	0	0	0	0	238	287
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	0	0	2436	198	0	0	0	0	264	319
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	2436	198	0	0	0	0	264	319
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	0	2436	198	0	0	0	0	264	319

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	0.90	0.90	1.00	1.00	1.00	0.85	0.95	1.00
Lanes:	0.00	0.00	0.00	0.00	3.70	0.30	0.00	0.00	0.00	1.00	2.00	0.00
Final Sat.:	0	0	0	0	6325	515	0	0	0	1615	3610	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.00	0.39	0.39	0.00	0.00	0.00	0.16	0.09	0.00
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.00	0.00	0.00	0.00	0.63	0.63	0.00	0.00	0.00	0.27	0.27	0.00
Volume/Cap:	0.00	0.00	0.00	0.00	0.61	0.61	0.00	0.00	0.00	0.61	0.33	0.00
Delay/Veh:	0.0	0.0	0.0	0.0	8.7	8.7	0.0	0.0	0.0	26.8	22.4	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	0.0	8.7	8.7	0.0	0.0	0.0	26.8	22.4	0.0
DesignQueue:	0	0	0	0	42	3	0	0	0	8	10	0

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #33 18th St./ Castro St.

Cycle (sec): 40 Critical Vol./Cap. (X): 0.403  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 9.0  
Optimal Cycle: 41 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	20	0	0	0	0	0	0	0	0	13	0
Lanes:	1	1	3	0	0	0	0	0	0	0	0	1

Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol:	189	726	0	0	0	0	0	0	0	24	205
Growth Adj:	1.10	1.10	1.10	1.00	1.00	1.00	1.00	1.00	1.00	1.81	1.81
Initial Bse:	208	799	0	0	0	0	0	0	0	43	371
Added Vol:	0	0	0	0	0	0	0	0	0	113	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	208	799	0	0	0	0	0	0	0	156	371
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	231	887	0	0	0	0	0	0	0	174	412
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	231	887	0	0	0	0	0	0	0	174	412
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	231	887	0	0	0	0	0	0	0	174	412

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.77	0.77	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90
Lanes:	1.03	3.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.59	1.41
Final Sat.:	1518	5830	0	0	0	0	0	0	0	1009	2392

Capacity Analysis Module:

Vol/Sat:	0.15	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.17
Crit Moves:	****										
Green/Cycle:	0.49	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.32
Volume/Cap:	0.31	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.54	0.54
Delay/Veh:	6.6	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.5	13.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	6.6	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.5	13.5
DesignQueue:	3	11	0	0	0	0	0	0	0	3	7

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - AM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #34 MLK Jr. Way/ 18th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.264  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 11.9  
Optimal Cycle: 62 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	27	0	0	0	0	0	0	0	0	27	0
Lanes:	0	1	1	0	0	1	0	0	0	1	0	2

Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol:	11	137	0	0	142	60	0	0	0	20	60	21
Growth Adj:	1.43	1.43	1.43	2.57	2.57	2.57	1.00	1.00	1.00	1.23	1.23	1.23
Initial Bse:	16	196	0	0	365	154	0	0	0	25	74	26
Added Vol:	0	0	0	0	0	0	0	0	0	7	113	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	16	196	0	0	365	154	0	0	0	32	187	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90
PHF Volume:	17	217	0	0	405	171	0	0	0	35	208	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	17	217	0	0	405	171	0	0	0	35	208	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	17	217	0	0	405	171	0	0	0	35	208	29

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.80	0.80	1.00	1.00	0.84	0.84	1.00	1.00	1.00	0.98	0.85	0.85
Lanes:	0.15	1.85	0.00	0.00	1.41	0.59	0.00	0.00	0.00	1.00	2.64	0.36
Final Sat.:	225	2797	0	0	2242	947	0	0	0	1866	4251	588

Capacity Analysis Module:

Vol/Sat:	0.08	0.08	0.00	0.00	0.18	0.18	0.00	0.00	0.00	0.02	0.05	0.05
Crit Moves:	****											
Green/Cycle:	0.44	0.44	0.00	0.00	0.44	0.44	0.00	0.00	0.00	0.44	0.44	0.44
Volume/Cap:	0.18	0.18	0.00	0.00	0.42	0.42	0.00	0.00	0.00	0.04	0.11	0.11
Delay/Veh:	11.0	11.0	0.0	0.0	13.0	13.0	0.0	0.0	0.0	10.2	10.5	10.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.0	11.0	0.0	0.0	13.0	13.0	0.0	0.0	0.0	10.2	10.5	10.5
DesignQueue:	0	4	0	0	8	3	0	0	0	1	4	1

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - AM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #35 Brush St./ 17th St.

Cycle (sec): 40 Critical Vol./Cap. (X): 0.707
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 8.9
Optimal Cycle: 40 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L-T-R), Control (Permitted, Include), and Rights (Min. Green, Lanes).

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

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Uptown Project Traffic Impact Analysis
Year 2025 plus Project - AM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #36 17th St / Castro St/I-980 Off-Ramp

Cycle (sec): 70 Critical Vol./Cap. (X): 0.511
Loss Time (sec): 12 (Y+R = 6 sec) Average Delay (sec/veh): 32.8
Optimal Cycle: 62 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L-T-R), Control (Permitted, Include, Split Phase), and Rights (Min. Green, Lanes).

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

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Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - AM Peak Hour

Level Of Service Computation Report

1997 HCM Operations Method (Future Volume Alternative)

Intersection #37 MLK Jr. Way/ 17th St

Cycle (sec): 60 Critical Vol./Cap. (X): 0.401  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 12.2  
Optimal Cycle: 58 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 25 0 0 25 0 0 25 0 0 0 0 0  
Lanes: 0 0 1 1 0 0 0 1 1 0 0 0 1 2 1 0 0 0 0 0 0 0

Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol:	0	58	17	10	137	0	3	1223	100	0	0	0
Growth Adj:	2.25	2.25	2.25	2.17	2.17	2.17	1.11	1.11	1.11	1.00	1.00	1.00
Initial Bse:	0	131	38	22	297	0	3	1358	111	0	0	0
Added Vol:	0	0	2	0	7	0	0	28	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	131	40	22	304	0	3	1386	111	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	1.00	1.00	1.00	0.95	0.95	0.95
PHF Volume:	0	145	45	24	338	0	3	1386	111	0	0	0
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	145	45	24	338	0	3	1386	111	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	145	45	24	338	0	3	1386	111	0	0	0

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 0.92 0.92 0.81 0.81 1.00 0.86 0.86 0.86 1.00 1.00 1.00 1.00  
Lanes: 0.00 1.53 0.47 0.13 1.87 0.00 0.01 3.69 0.30 0.00 0.00 0.00 0.00  
Final Sat.: 0 2662 821 206 2886 0 14 6015 482 0 0 0 0

Capacity Analysis Module:  
Vol/Sat: 0.00 0.05 0.05 0.12 0.12 0.00 0.23 0.23 0.23 0.00 0.00 0.00 0.00  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.00 0.42 0.42 0.42 0.42 0.00 0.45 0.45 0.45 0.00 0.00 0.00 0.00  
Volume/Cap: 0.00 0.13 0.13 0.28 0.28 0.00 0.51 0.51 0.51 0.00 0.00 0.00 0.00  
Delay/Veh: 0.0 11.0 11.0 12.1 12.1 0.0 12.4 12.4 12.4 0.0 0.0 0.0 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 11.0 11.0 12.1 12.1 0.0 12.4 12.4 12.4 0.0 0.0 0.0 0.0  
DesignQueue: 0 3 1 0 7 0 0 27 2 0 0 0 0

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - AM Peak Hour

Level Of Service Computation Report

1997 HCM Operations Method (Future Volume Alternative)

Intersection #38 Jefferson St./ 17th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.327  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 11.6  
Optimal Cycle: 59 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 25 0 0 25 0 0 26 0 0 0 0 0  
Lanes: 0 0 1 1 0 0 0 1 1 0 0 0 1 2 1 0 0 0 0 0 0 0

Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol:	0	55	39	10	47	0	23	1119	102	0	0	0
Growth Adj:	1.68	1.68	1.68	3.00	3.00	3.00	1.12	1.12	1.12	1.00	1.00	1.00
Initial Bse:	0	92	66	30	141	0	26	1253	114	0	0	0
Added Vol:	0	0	0	0	0	0	0	29	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	92	66	30	141	0	26	1282	114	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90
PHF Volume:	0	103	73	33	157	0	26	1282	114	0	0	0
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	103	73	33	157	0	26	1282	114	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	103	73	33	157	0	26	1282	114	0	0	0

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 0.82 0.82 0.78 0.78 1.00 0.85 0.85 0.85 1.00 1.00 1.00 1.00  
Lanes: 0.00 1.17 0.83 0.35 1.65 0.00 0.07 3.61 0.32 0.00 0.00 0.00 0.00  
Final Sat.: 0 1833 1300 518 2434 0 118 5858 522 0 0 0 0

Capacity Analysis Module:  
Vol/Sat: 0.00 0.06 0.06 0.06 0.06 0.00 0.22 0.22 0.22 0.00 0.00 0.00 0.00  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.00 0.42 0.42 0.42 0.42 0.00 0.45 0.45 0.45 0.00 0.00 0.00 0.00  
Volume/Cap: 0.00 0.13 0.13 0.15 0.15 0.00 0.49 0.49 0.49 0.00 0.00 0.00 0.00  
Delay/Veh: 0.0 10.9 10.9 11.0 11.0 0.0 11.7 11.7 11.7 0.0 0.0 0.0 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 10.9 10.9 11.0 11.0 0.0 11.7 11.7 11.7 0.0 0.0 0.0 0.0  
DesignQueue: 0 2 1 1 3 0 0 25 2 0 0 0 0

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - AM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #39 Franklin St./ 17th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.526  
Loss Time (sec): 8 (Y+R = 7 sec) Average Delay (sec/veh): 52.2  
Optimal Cycle: 45 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 8 Jul 2003 << Table with 12 columns for volume counts and 12 columns for adjustment factors.

Saturation Flow Module: Table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - AM Peak Hour

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #40 Webster St./ 17th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.466  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 12.7  
Optimal Cycle: 47 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 8 Jul 2003 << Table with 12 columns for volume counts and 12 columns for adjustment factors.

Saturation Flow Module: Table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Impact Analysis Report  
Level of Service

Intersection	Base		Future		Change in
	Del/ LOS Veh	V/ C	Del/ LOS Veh	V/ C	
# 1 San Pablo Ave./ 31st St.	B 11.7	0.541	B 11.9	0.548	+ 0.141 D/V
# 2 San Pablo Ave./ Market St.	B 12.0	0.477	B 12.1	0.496	+ 0.044 D/V
# 3 San Pablo Ave. / 27th	E 69.3	1.879	E 74.0	2.007	+ 4.695 D/V
# 4 San Pablo Ave./ West St/25th S	B 17.1	0.506	B 17.6	0.535	+ 0.533 D/V
# 5 San Pablo Ave./ Grand Ave	F 83.7	0.925	F 111.1	1.053	+27.382 D/V
# 6 San Pablo Ave./ 20th St.	C 25.2	0.577	F 87.9	1.216	+62.650 D/V
# 7 San Pablo / Williams	B 1.4	0.000	C 1.5	0.000	+ 0.000 V/C
# 8 San Pablo Ave./ 19th St.	C 26.5	0.592	C 28.7	0.701	+ 2.218 D/V
# 9 San Pablo / 18th	C 2.1	0.000	C 2.3	0.000	+ 0.000 V/C
# 10 San Pablo / 17th / Clay	D 38.1	0.563	D 43.1	0.586	+ 5.084 D/V
# 11 Telegraph Ave./ W. Grand Ave.	D 50.1	1.433	E 78.6	1.887	+28.594 D/V
# 12 Telegraph Ave./ 20th St.	F 274.7	1.168	F 260.6	1.254	-14.081 D/V
# 13 Telegraph / Williams St	F 89.0	0.913	F 98.7	1.022	+ 9.740 D/V
# 14 Telegraph Ave./ 19th St.	F 93.9	1.182	F 134.9	1.333	+41.018 D/V
# 15 Telegraph / 18th St	A 7.9	0.696	A 9.9	0.767	+ 1.997 D/V
# 16 Telegraph Ave./ 17th St.	B 12.4	0.654	B 13.0	0.685	+ 0.565 D/V
# 17 Broadway/ W. Grand Ave.	D 50.4	1.216	E 67.9	1.421	+17.507 D/V
# 18 Broadway/ 20th St.	B 12.6	0.492	B 13.1	0.520	+ 0.484 D/V
# 19 Broadway/ 19th St.	C 24.7	0.903	C 30.4	0.931	+ 5.654 D/V
# 20 Broadway/ 17th St.	B 15.7	0.674	B 16.2	0.690	+ 0.566 D/V
# 21 Broadway/ 15th St.	B 10.1	0.501	B 10.0	0.514	-0.073 D/V
# 22 Broadway/ 14th St.	B 14.1	0.597	B 14.4	0.622	+ 0.279 D/V
# 23 Frontage Rd./ W. Grand Ave.	F 223.5	1.530	F 225.7	1.550	+ 2.200 D/V
# 24 Mandela Pkwy/ W. Grand Ave.	D 54.3	1.167	E 63.1	1.308	+ 8.801 D/V

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Intersection	Base		Future		Change in
	Del/ LOS Veh	V/ C	Del/ LOS Veh	V/ C	
# 25 Northgate Ave./ W. Grand Ave.	E 76.7	0.922	F 84.8	0.968	+ 8.081 D/V
# 26 Webster St./Grand Ave.	C 25.3	0.775	C 26.2	0.801	+ 0.976 D/V
# 27 Harrison St./ Grand Ave.	E 55.5	1.100	E 60.5	1.118	+ 4.976 D/V
# 28 El Embarcadero / Grand Ave.	C 31.6	0.956	C 33.8	0.956	+ 2.247 D/V
# 29 MacArther Blvd./ Grand Ave.	C 31.5	0.901	D 36.2	0.941	+ 4.717 D/V
# 30 MacArther Blvd./ Lake Shore Av	C 26.9	0.753	C 30.0	0.768	+ 3.089 D/V
# 31 Lake Park Ave./ Lake Shore Ave	D 41.1	0.810	D 46.3	0.834	+ 5.117 D/V
# 32 Brush St./ 18th St.	A 9.6	0.336	B 10.6	0.385	+ 1.046 D/V
# 33 18th St./ Castro St.	D 51.3	0.985	E 61.1	1.008	+ 9.740 D/V
# 34 MLK Jr. Way/ 18th St.	B 13.8	0.471	B 14.2	0.487	+ 0.343 D/V
# 35 Brush St./ 17th St.	B 11.6	0.397	B 11.8	0.435	+ 0.232 D/V
# 36 17th St / Castro St/I-980 Off-	E 59.5	0.924	E 71.7	0.962	+12.205 D/V
# 37 MLK Jr. Way/ 17th St	B 11.1	0.254	B 11.3	0.278	+ 0.121 D/V
# 38 Jefferson St./ 17th St.	B 10.8	0.264	B 11.0	0.288	+ 0.140 D/V
# 39 Franklin St./ 17th St.	D 43.6	0.587	D 52.9	0.611	+ 9.273 D/V
# 40 Webster St./ 17th St.	B 12.5	0.528	B 13.1	0.544	+ 0.638 D/V

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #1 San Pablo Ave./ 31st St.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.548
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 11.9
Optimal Cycle: 82 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Protected
Rights: Include Include Include Include
Min. Green: 0 52 0 0 52 0 0 0 0 22 0 22
Lanes: 0 1 1 0 0 1 0 2 0 0 2 0 0 0 1

Volume Module: >> Count Date: 9 Jul 2003 <<
Base Vol: 0 800 0 43 622 0 0 0 0 184 0 21
Growth Adj: 1.63 1.63 1.63 1.65 1.65 1.65 1.00 1.00 1.00 1.42 1.42 1.42
Initial Bse: 0 1304 0 71 1026 0 0 0 0 261 0 30
Added Vol: 0 20 0 0 36 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 1324 0 71 1062 0 0 0 0 261 0 30
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume: 0 1357 0 73 1089 0 0 0 0 268 0 31
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1357 0 73 1089 0 0 0 0 268 0 31
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 1357 0 73 1089 0 0 0 0 268 0 31

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.85 1.00 0.14 0.85 1.00 1.00 1.00 1.00 0.92 1.00 0.68
Lanes: 0.00 2.00 0.00 1.00 2.00 0.00 0.00 0.00 0.00 2.00 0.00 1.00
Final Sat.: 0 3249 0 266 3249 0 0 0 0 3502 0 1292

Capacity Analysis Module:
Vol/Sat: 0.00 0.42 0.00 0.27 0.34 0.00 0.00 0.00 0.00 0.08 0.00 0.02
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.63 0.00 0.63 0.63 0.00 0.00 0.00 0.00 0.27 0.00 0.27
Volume/Cap: 0.00 0.66 0.00 0.43 0.53 0.00 0.00 0.00 0.00 0.29 0.00 0.09
Delay/Veh: 0.0 11.1 0.0 15.4 9.2 0.0 0.0 0.0 0.0 24.5 0.0 23.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 11.1 0.0 15.4 9.2 0.0 0.0 0.0 0.0 24.5 0.0 23.0
DesignQueue: 0 25 0 1 20 0 0 0 0 9 0 1

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #2 San Pablo Ave./ Market St.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.496
Loss Time (sec): 8 (Y+R = 10 sec) Average Delay (sec/veh): 12.1
Optimal Cycle: 78 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 50 0 0 50 0 0 20 0 0 0 0 20
Lanes: 0 0 1 1 0 0 0 1 1 0 0 1 0 1 0 0 0 0 0 1

Volume Module: >> Count Date: 9 Jul 2003 <<
Base Vol: 0 749 0 0 729 167 111 144 15 0 0 0
Growth Adj: 1.12 1.12 1.12 1.00 1.00 1.00 1.58 1.58 1.58 1.99 1.99 1.99
Initial Bse: 0 839 0 0 729 167 175 228 24 0 0 0
Added Vol: 0 29 0 0 54 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 868 0 0 783 167 175 228 24 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 917 0 0 828 177 185 241 25 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 917 0 0 828 177 185 241 25 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 917 0 0 828 177 185 241 25 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.88 0.95 1.00 0.86 0.86 0.86 0.86 0.86 1.00 1.00 1.00
Lanes: 0.00 2.00 0.00 0.00 1.65 0.35 0.82 1.07 0.11 0.00 0.00 1.00
Final Sat.: 0 3339 0 0 2681 572 1351 1753 183 0 0 1900

Capacity Analysis Module:
Vol/Sat: 0.00 0.27 0.00 0.00 0.31 0.31 0.14 0.14 0.14 0.00 0.00 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.63 0.00 0.00 0.63 0.63 0.28 0.28 0.28 0.00 0.00 0.00
Volume/Cap: 0.00 0.44 0.00 0.00 0.49 0.49 0.50 0.50 0.50 0.00 0.00 0.00
Delay/Veh: 0.0 8.4 0.0 0.0 9.0 9.0 26.3 26.3 26.3 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 8.4 0.0 0.0 9.0 9.0 26.3 26.3 26.3 0.0 0.0 0.0
DesignQueue: 0 16 0 0 15 3 6 8 1 0 0 0



Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #3 San Pablo Ave. / 27th  
\*\*\*\*\*

Cycle (sec): 90 Critical Vol./Cap. (X): 2.007  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 74.0  
Optimal Cycle: 120 Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	60	0	0	60	0	0	22	0	0	22	0
Lanes:	0	1	0	1	0	1	0	0	1	0	0	1

Volume Module:

Base Vol:	8	960	60	174	638	7	21	40	19	53	87	90
Growth Adj:	1.42	1.42	1.42	1.50	1.50	1.50	1.46	1.46	1.46	1.41	1.41	1.41
Initial Bse:	11	1363	85	261	957	11	31	58	28	75	123	127
Added Vol:	4	29	0	0	54	0	0	0	7	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	15	1392	85	261	1011	11	31	58	35	75	123	127
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	17	1547	95	290	1123	12	34	65	39	83	136	141
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	17	1547	95	290	1123	12	34	65	39	83	136	141
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	17	1547	95	290	1123	12	34	65	39	83	136	141

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.88	0.88	0.88	0.09	0.95	0.95	0.77	0.77	0.77	0.75	1.00	0.85
Lanes:	0.02	1.87	0.11	1.00	1.98	0.02	0.25	0.47	0.28	1.00	1.00	1.00
Final Sat.:	35	3133	192	167	3569	37	363	691	411	1419	1900	1615

Capacity Analysis Module:

Vol/Sat:	0.49	0.49	0.49	1.73	0.31	0.31	0.09	0.09	0.09	0.06	0.07	0.09
Crit Moves:	****											
Green/Cycle:	0.67	0.67	0.67	0.67	0.67	0.67	0.24	0.24	0.24	0.24	0.24	0.24
Volume/Cap:	0.74	0.74	0.74	2.60	0.47	0.47	0.38	0.38	0.38	0.24	0.29	0.36
Delay/Veh:	12.1	12.1	12.1	761.1	8.0	8.0	31.5	31.5	31.5	28.9	29.3	30.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.1	12.1	12.1	761.1	8.0	8.0	31.5	31.5	31.5	28.9	29.3	30.7
DesignQueue:	0	29	2	5	20	0	1	2	1	3	5	5

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #4 San Pablo Ave./ West St/25th St  
\*\*\*\*\*

Cycle (sec): 90 Critical Vol./Cap. (X): 0.535  
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 17.6  
Optimal Cycle: 73 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	32	0	0	32	0	12	0	12	17	0	17
Lanes:	0	1	0	1	0	1	0	0	1	0	0	1

Volume Module: >> Count Date: 9 Jul 2003 <<

Base Vol:	0	901	63	12	554	0	5	0	8	25	0	65
Growth Adj:	1.25	1.25	1.25	1.09	1.09	1.09	1.38	1.38	1.38	1.85	1.85	1.85
Initial Bse:	0	1126	79	13	604	0	7	0	11	46	0	120
Added Vol:	0	33	10	0	61	0	0	0	0	18	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1159	89	13	665	0	7	0	11	64	0	120
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	1225	94	14	703	0	7	0	12	68	0	127
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1225	94	14	703	0	7	0	12	68	0	127
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	1225	94	14	703	0	7	0	12	68	0	127

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.85	0.85	0.78	0.78	0.95	0.64	1.00	0.64	0.95	1.00	0.68
Lanes:	0.00	1.86	0.14	0.04	1.96	0.00	0.38	0.00	0.62	1.00	0.00	1.00
Final Sat.:	0	2985	229	57	2903	0	469	0	750	1805	0	1292

Capacity Analysis Module:

Vol/Sat:	0.00	0.41	0.41	0.24	0.24	0.00	0.02	0.00	0.02	0.04	0.00	0.10
Crit Moves:	****											
Green/Cycle:	0.00	0.54	0.54	0.54	0.54	0.00	0.13	0.00	0.13	0.19	0.00	0.19
Volume/Cap:	0.00	0.75	0.75	0.44	0.44	0.00	0.12	0.00	0.12	0.20	0.00	0.52
Delay/Veh:	0.0	17.8	17.8	12.5	12.5	0.0	34.7	0.0	34.7	31.1	0.0	34.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	17.8	17.8	12.5	12.5	0.0	34.7	0.0	34.7	31.1	0.0	34.8
DesignQueue:	0	31	2	0	17	0	0	0	1	3	0	5

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #5 San Pablo Ave./ Grand Ave

Cycle (sec): 80 Critical Vol./Cap. (X): 1.053  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 111.1  
Optimal Cycle: 120 Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	40	0	0	40	0	0	33	0	0	33	0
Lanes:	1	0	1	1	0	1	0	2	0	0	1	0

Volume Module:

Base Vol:	112	489	14	122	373	7	31	663	33	31	677	101
Growth Adj:	1.53	1.53	1.53	1.24	1.24	1.24	1.76	1.76	1.76	1.82	1.82	1.82
Initial Bse:	171	748	21	151	463	9	55	1167	58	56	1232	184
Added Vol:	44	38	29	21	58	0	0	33	68	24	11	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	215	786	50	172	521	9	55	1200	126	80	1243	189
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	227	828	53	181	548	9	57	1263	133	85	1309	199
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	227	828	53	181	548	9	57	1263	133	85	1309	199
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	227	828	53	181	548	9	57	1263	133	85	1309	199

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.40	0.87	0.87	0.24	0.88	0.88	0.12	0.95	0.72	0.54	0.54	0.72
Lanes:	1.00	1.88	0.12	1.00	1.97	0.03	1.00	2.00	1.00	0.12	1.88	1.00
Final Sat.:	752	3110	199	454	3278	55	230	3610	1373	124	1916	1373

Capacity Analysis Module:

Vol/Sat:	0.30	0.27	0.27	0.40	0.17	0.17	0.25	0.35	0.10	0.68	0.68	0.14
Crit Moves:	****											
Green/Cycle:	0.49	0.49	0.49	0.49	0.49	0.49	0.41	0.41	0.41	0.41	0.41	0.41
Volume/Cap:	0.61	0.54	0.54	0.81	0.34	0.34	0.61	0.86	0.24	1.68	1.68	0.36
Delay/Veh:	22.1	15.4	15.4	43.3	13.0	13.0	45.4	28.6	16.7	333.8	334	18.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	22.1	15.4	15.4	43.3	13.0	13.0	45.4	28.6	16.7	333.8	334	18.4
DesignQueue:	5	20	1	4	13	0	2	37	4	3	39	5

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #6 San Pablo Ave./ 20th St.

Cycle (sec): 80 Critical Vol./Cap. (X): 1.216  
Loss Time (sec): 12 (Y+R = 25 sec) Average Delay (sec/veh): 87.9  
Optimal Cycle: 120 Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	20	0	0	20	0	0	30	0	0	30	0
Lanes:	1	0	0	1	0	0	0	1	0	0	1	0

Volume Module:

Base Vol:	40	376	87	95	328	195	194	46	20	15	32	77
Growth Adj:	1.30	1.30	1.30	1.12	1.12	1.12	1.00	1.00	1.00	1.31	1.31	1.31
Initial Bse:	52	489	113	106	367	218	194	46	20	20	42	101
Added Vol:	0	65	58	72	40	0	0	0	0	30	0	46
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	52	554	171	178	407	218	194	46	20	50	42	147
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.94	0.94	0.00	0.91	0.91	0.91	0.92	0.92	0.92
PHF Volume:	58	615	190	190	433	0	213	51	22	54	46	160
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	58	615	190	190	433	0	213	51	22	54	46	160
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	58	615	190	190	433	0	213	51	22	54	46	160

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.51	0.82	0.82	0.11	0.95	1.00	0.57	0.57	0.57	0.63	0.63	0.63
Lanes:	1.00	0.76	0.24	1.00	2.00	1.00	1.00	0.70	0.30	0.54	0.46	1.00
Final Sat.:	967	1191	368	200	3610	1900	1074	748	325	653	552	1205

Capacity Analysis Module:

Vol/Sat:	0.06	0.52	0.52	0.95	0.12	0.00	0.20	0.07	0.07	0.08	0.08	0.13
Crit Moves:	****											
Green/Cycle:	0.48	0.48	0.48	0.48	0.48	0.00	0.38	0.38	0.38	0.38	0.38	0.38
Volume/Cap:	0.13	1.09	1.09	2.00	0.25	0.00	0.53	0.18	0.18	0.22	0.22	0.35
Delay/Veh:	12.3	80.6	80.6	507.4	12.9	0.0	23.2	17.0	17.0	17.5	17.5	19.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.3	80.6	80.6	507.4	12.9	0.0	23.2	17.0	17.0	17.5	17.5	19.3
DesignQueue:	1	16	5	5	10	0	6	1	1	2	1	5

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Level of Service Computation Report  
1997 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #7 San Pablo / Williams  
\*\*\*\*\*

Average Delay (sec/veh): 1.5 Worst Case Level of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	2	0	0	0	0	0	1

Volume Module:

Base Vol:	0	300	0	0	360	0	0	0	0	0	0	106
Growth Adj:	1.73	1.73	1.73	1.11	1.11	1.11	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	519	0	0	400	0	0	0	0	0	0	106
Added Vol:	0	74	44	0	70	0	0	0	0	0	0	50
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	593	44	0	470	0	0	0	0	0	0	156
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	659	49	0	522	0	0	0	0	0	0	173
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	659	49	0	522	0	0	0	0	0	0	173

Critical Gap Module:

Critical Gp: 6.2  
FollowUpTim: 3.3

Capacity Module:

Cnflct Vol: 683  
Potent Cap.: 453  
Move Cap.: 453

Level of Service Module:

Stopped Del: 17.8  
LOS by Move: C  
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT  
Shared Cap.: XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX  
Shrd StpDel: XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX  
Shared LOS: \* \* \* \* \*  
ApproachDel: XXXXXX XXXXXX XXXXXX 17.8  
ApproachLOS: \* \* \* C

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #8 San Pablo Ave./ 19th St.  
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Cycle (sec): 80 Critical Vol./Cap. (X): 0.701  
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 28.7  
Optimal Cycle: 79 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R				
Control:	Permitted			Permitted			Split Phase			Split Phase						
Rights:	Include			Include			Include			Include						
Min. Green:	0	30	0	0	30	0	12	0	12	0	25	0				
Lanes:	1	0	1	0	0	2	0	1	0	0	1	0	0	1	1	0

Volume Module:

Base Vol:	19	129	0	0	264	94	109	0	9	37	539	71
Growth Adj:	1.73	1.73	1.73	1.11	1.11	1.11	1.00	1.00	1.00	1.16	1.16	1.16
Initial Bse:	33	223	0	0	293	104	109	0	9	43	625	82
Added Vol:	1	98	0	0	46	24	0	0	0	9	42	20
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	34	321	0	0	339	128	109	0	9	52	667	102
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	38	357	0	0	377	143	121	0	10	58	741	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	38	357	0	0	377	143	121	0	10	58	741	114
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	38	357	0	0	377	143	121	0	10	58	741	114

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.50	0.85	1.00	1.00	0.95	0.72	0.72	1.00	0.72	0.86	0.86	0.86
Lanes:	1.00	1.00	0.00	0.00	2.00	1.00	0.92	0.00	0.08	0.13	1.62	0.25
Final Sat.:	956	1615	0	0	3610	1373	1269	0	105	206	2653	407

Capacity Analysis Module:

Vol/Sat:	0.04	0.22	0.00	0.00	0.10	0.10	0.10	0.00	0.10	0.28	0.28	0.28
Crit Moves:	0.38	0.38	0.00	0.00	0.38	0.38	0.15	0.00	0.15	0.32	0.32	0.32
Volume/Cap:	0.11	0.59	0.00	0.00	0.28	0.28	0.64	0.00	0.64	0.86	0.86	0.86
Delay/Veh:	16.9	24.2	0.0	0.0	18.0	18.8	46.0	0.0	46.0	34.4	34.4	34.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	16.9	24.2	0.0	0.0	18.0	18.8	46.0	0.0	46.0	34.4	34.4	34.4
DesignQueue:	1	10	0	0	11	4	5	0	0	2	24	4

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Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Level Of Service Computation Report

1997 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 San Pablo / 18th

Average Delay (sec/veh): 2.3 Worst Case Level Of Service: C

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Vol.

Critical Gap Module table with columns for Critical Gap, FollowUpTim.

Capacity Module table with columns for Conflict Vol, Potent Cap., Move Cap.

Level Of Service Module table with columns for Stopped Del, LOS by Move, Movement, Shared Cap., Shrd StpDel, Shared LOS, ApproachDel, ApproachLOS.

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Level Of Service Computation Report

1997 HCM Operations Method (Future Volume Alternative)

Intersection #10 San Pablo / 17th / Clay

Cycle (sec): 70 Critical Vol./Cap. (X): 0.586

Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 43.1

Optimal Cycle: 62 Level Of Service: D

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, Uptown+TLB, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #11 Telegraph Ave./ W. Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 1.887  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 78.6  
Optimal Cycle: 120 Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	20	0	0	20	0	0	30	0	0	30	0
Lanes:	1	0	1	1	0	0	1	0	1	1	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	299	474	110	99	320	107	139	563	110	76	673	90
Growth Adj:	1.96	1.96	1.96	1.06	1.06	1.06	1.35	1.35	1.35	1.19	1.19	1.19
Initial Bse:	586	929	216	105	339	113	188	760	149	90	801	107
Added Vol:	32	11	68	0	22	0	1	5	102	126	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	618	940	284	105	361	113	189	765	251	216	801	107
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	651	990	299	110	380	119	199	805	264	228	843	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	651	990	299	110	380	119	199	805	264	228	843	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	651	990	299	110	380	119	199	805	264	228	843	113

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.55	0.85	0.85	0.18	0.85	0.85	0.18	0.85	0.85	0.13	0.86	0.86
Lanes:	1.00	1.54	0.46	1.00	1.52	0.48	1.00	1.51	0.49	1.00	1.76	0.24
Final Sat.:	1041	2476	747	342	2450	769	334	2422	793	251	2892	387

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.63	0.40	0.40	0.32	0.16	0.16	0.59	0.33	0.33	0.91	0.29	0.29
Crit Moves:	****			****			****			****		
Green/Cycle:	0.48	0.48	0.48	0.28	0.28	0.28	0.42	0.42	0.42	0.42	0.42	0.42
Volume/Cap:	1.31	0.84	0.84	1.16	0.56	0.56	1.41	0.79	0.79	2.16	0.69	0.69
Delay/Veh:	168.6	22.3	22.3	170.7	25.4	25.4	243.8	23.2	23.2	573.0	20.4	20.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	168.6	22.3	22.3	170.7	25.4	25.4	243.8	23.2	23.2	573.0	20.4	20.4
DesignQueue:	25	25	8	4	13	4	5	22	7	6	23	3

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #12 Telegraph Ave./ 20th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 1.254  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 260.6  
Optimal Cycle: 120 Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound				
Movement:	L	T	R	L	T	R	L	T	R	L	T	R		
Control:	Permitted			Permitted			Permitted			Permitted				
Rights:	Include			Include			Include			Include				
Min. Green:	0	17	0	0	17	0	0	22	0	0	22	0		
Lanes:	1	0	0	1	0	1	0	0	1	0	1	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	18	354	43	90	393	25	90	203	37	31	107	115
Growth Adj:	2.91	2.91	2.91	1.31	1.31	1.31	1.16	1.16	1.16	1.01	1.01	1.01
Initial Bse:	52	1030	125	118	515	33	104	235	43	31	108	116
Added Vol:	42	35	8	1	160	86	27	16	29	17	30	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	94	1065	133	119	675	119	131	251	72	48	138	117
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.93	0.93	0.93	0.91	0.91	0.91	0.90	0.90	0.90
PHF Volume:	105	1183	148	128	726	128	144	276	79	54	153	130
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	105	1183	148	128	726	128	144	276	79	54	153	130
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	105	1183	148	128	726	128	144	276	79	54	153	130

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.24	0.84	0.84	0.24	0.86	0.86	0.65	0.65	0.65	0.69	0.69	0.69
Lanes:	1.00	0.89	0.11	1.00	1.70	0.30	0.58	1.10	0.32	0.32	0.91	0.77
Final Sat.:	447	1411	176	447	2777	489	715	1368	391	419	1198	1016

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.23	0.84	0.84	0.29	0.26	0.26	0.20	0.20	0.20	0.13	0.13	0.13
Crit Moves:	****			****			****			****		
Green/Cycle:	0.36	0.36	0.36	0.36	0.36	0.36	0.47	0.47	0.47	0.47	0.47	0.47
Volume/Cap:	0.65	2.32	2.32	0.79	0.72	0.72	0.43	0.43	0.43	0.27	0.27	0.27
Delay/Veh:	31.0	614	613.9	45.1	16.8	16.8	9.5	9.5	9.5	8.2	8.2	8.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	31.0	614	613.9	45.1	16.8	16.8	9.5	9.5	9.5	8.2	8.2	8.2
DesignQueue:	2	24	3	2	13	2	2	4	1	1	2	2

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #13 Telegraph / Williams St

Cycle (sec): 45 Critical Vol./Cap. (X): 1.022  
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 98.7  
Optimal Cycle: 108 Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Rights:	0 0 0			0 0 0			10 0 10			0 0 0		
Min. Green:	0 0 0			0 0 0			1 0 0			0 0 0		
Lanes:	1 0 1 0 0			0 0 0 1 0			0 0 1 0 0			0 0 0 0 0		

Volume Module:

Base Vol:	14	440	0	0	400	28	1	0	1	0	0	0
Growth Adj:	2.91	2.91	2.91	1.32	1.32	1.32	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	41	1280	0	0	528	37	1	0	1	0	0	0
Added Vol:	41	67	0	0	73	134	18	0	47	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	82	1347	0	0	601	171	19	0	48	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	91	1497	0	0	668	190	21	0	53	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	1497	0	0	668	190	21	0	53	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	91	1497	0	0	668	190	21	0	53	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.52	1.00	1.00	1.00	0.87	0.87	0.74	1.00	0.74	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.78	0.22	0.28	0.00	0.72	0.00	0.00	0.00
Final Sat.:	990	1900	0	0	1287	366	401	0	1013	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.09	0.79	0.00	0.00	0.52	0.52	0.05	0.00	0.05	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.60	0.60	0.00	0.00	0.60	0.60	0.22	0.00	0.22	0.00	0.00	0.00
Volume/Cap:	0.15	1.31	0.00	0.00	0.86	0.86	0.24	0.00	0.24	0.00	0.00	0.00
Delay/Veh:	4.1	156	0.0	0.0	15.5	15.5	14.8	0.0	14.8	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	4.1	156	0.0	0.0	15.5	15.5	14.8	0.0	14.8	0.0	0.0	0.0
DesignQueue:	1	19	0	0	8	2	0	0	1	0	0	0

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #14 Telegraph Ave./ 19th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 1.333  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 134.9  
Optimal Cycle: 120 Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Rights:	0 17 0			0 17 0			0 0 0			0 22 0		
Min. Green:	0 17 0			0 17 0			0 0 0			0 1 0 1 0		
Lanes:	1 0 1 0 0			0 0 0 1 0			0 0 0 0 0			0 1 0 1 0		

Volume Module:

Base Vol:	57	355	0	0	377	46	0	0	0	28	552	122
Growth Adj:	1.06	1.06	1.06	1.32	1.32	1.32	1.00	1.00	1.00	2.38	2.38	2.38
Initial Bse:	60	376	0	0	498	61	0	0	0	67	1314	290
Added Vol:	23	62	0	0	50	69	0	0	0	0	28	47
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	83	438	0	0	548	130	0	0	0	67	1342	337
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.93	0.93	0.93	1.00	1.00	1.00	0.94	0.94	0.94
PHF Volume:	86	452	0	0	589	139	0	0	0	71	1427	359
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	86	452	0	0	589	139	0	0	0	71	1427	359
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	86	452	0	0	589	139	0	0	0	71	1427	359

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.86	0.85	1.00	1.00	0.74	0.74	1.00	1.00	1.00	0.83	0.83	0.83
Lanes:	1.00	1.00	0.00	0.00	0.81	0.19	0.00	0.00	0.00	0.07	1.54	0.39
Final Sat.:	1628	1615	0	0	1141	270	0	0	0	120	2420	608

Capacity Analysis Module:

Vol/Sat:	0.05	0.28	0.00	0.00	0.52	0.52	0.00	0.00	0.00	0.59	0.59	0.59
Crit Moves:	****			****			****			****		
Green/Cycle:	0.36	0.36	0.00	0.00	0.36	0.36	0.00	0.00	0.00	0.47	0.47	0.47
Volume/Cap:	0.15	0.77	0.00	0.00	1.43	1.43	0.00	0.00	0.00	1.26	1.26	1.26
Delay/Veh:	10.6	22.9	0.0	0.0	218	218.1	0.0	0.0	0.0	135.2	135	135.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.6	22.9	0.0	0.0	218	218.1	0.0	0.0	0.0	135.2	135	135.2
DesignQueue:	1	8	0	0	11	3	0	0	0	1	23	6

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #15 Telegraph / 18th St  
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Cycle (sec): 45 Critical Vol./Cap. (X): 0.767  
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 9.9  
Optimal Cycle: 47 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	7	0	7	0	0	0
Lanes:	1	0	1	0	0	1	0	0	1	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	42	350	0	0	380	34	44	0	36	0	0	0
Growth Adj:	1.18	1.18	1.18	1.67	1.67	1.67	1.73	1.73	1.73	1.73	1.73	1.73
Initial Bse:	50	413	0	0	635	57	76	0	62	0	0	0
Added Vol:	15	66	0	0	50	0	19	0	11	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	65	479	0	0	685	57	95	0	73	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	72	532	0	0	761	63	106	0	81	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	72	532	0	0	761	63	106	0	81	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	72	532	0	0	761	63	106	0	81	0	0	0

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.55	1.00	1.00	1.00	0.89	0.89	0.69	1.00	0.69	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.92	0.08	0.56	0.00	0.44	0.00	0.00	0.00
Final Sat.:	1037	1900	0	0	1561	130	736	0	567	0	0	0

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.07	0.28	0.00	0.00	0.49	0.49	0.14	0.00	0.14	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.64	0.64	0.00	0.00	0.64	0.64	0.19	0.00	0.19	0.00	0.00	0.00
Volume/Cap:	0.11	0.44	0.00	0.00	0.77	0.77	0.77	0.00	0.77	0.00	0.00	0.00
Delay/Veh:	3.3	4.4	0.0	0.0	9.2	9.2	31.0	0.0	31.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	3.3	4.4	0.0	0.0	9.2	9.2	31.0	0.0	31.0	0.0	0.0	0.0
DesignQueue:	1	5	0	0	8	1	2	0	2	0	0	0

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #16 Telegraph Ave. / 17th St.  
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Cycle (sec): 45 Critical Vol./Cap. (X): 0.685  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 13.0  
Optimal Cycle: 39 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	1	1	0	0	0	1	1	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	363	4	92	265	0	60	451	66	0	0	0
Growth Adj:	1.18	1.18	1.18	1.67	1.67	1.67	1.73	1.73	1.73	1.00	1.00	1.00
Initial Bse:	0	428	5	154	443	0	104	780	114	0	0	0
Added Vol:	0	54	0	35	26	0	28	2	3	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	482	5	189	469	0	132	782	117	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	536	5	210	521	0	146	869	130	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	536	5	210	521	0	146	869	130	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	536	5	210	521	0	146	869	130	0	0	0

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.88	0.88	0.45	0.85	1.00	0.84	0.84	0.84	1.00	1.00	1.00
Lanes:	0.00	1.98	0.02	1.00	1.00	0.00	0.38	2.28	0.34	0.00	0.00	0.00
Final Sat.:	0	3304	32	863	1615	0	609	3612	541	0	0	0

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.00	0.16	0.16	0.24	0.32	0.00	0.24	0.24	0.24	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.47	0.47	0.47	0.47	0.00	0.35	0.35	0.35	0.00	0.00	0.00
Volume/Cap:	0.00	0.34	0.34	0.52	0.68	0.00	0.68	0.68	0.68	0.00	0.00	0.00
Delay/Veh:	0.0	8.1	8.1	13.0	14.3	0.0	14.8	14.8	14.8	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	8.1	8.1	13.0	14.3	0.0	14.8	14.8	14.8	0.0	0.0	0.0
DesignQueue:	0	7	0	3	7	0	3	15	2	0	0	0

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #17 Broadway/ W. Grand Ave.

Cycle (sec): 85 Critical Vol./Cap. (X): 1.421  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 67.9  
Optimal Cycle: 120 Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	37	0	0	37	0	0	42	0	0	42	0
Lanes:	1	0	2	0	1	1	1	0	1	1	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	301	734	200	59	494	125	136	585	86	84	356	33
Growth Adj:	1.12	1.12	1.12	1.04	1.04	1.04	1.62	1.62	1.62	1.34	1.34	1.34
Initial Bse:	337	822	224	61	514	130	220	948	139	113	477	44
Added Vol:	0	4	3	0	9	20	12	61	0	10	106	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	337	826	227	61	523	150	232	1009	139	123	583	44
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	375	918	252	68	581	167	258	1121	155	136	648	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	375	918	252	68	581	167	258	1121	155	136	648	49
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	375	918	252	68	581	167	258	1121	155	136	648	49

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.29	0.95	0.72	0.22	0.85	0.85	0.23	0.86	0.86	0.44	0.44	0.44
Lanes:	1.00	2.00	1.00	1.00	1.55	0.45	1.00	1.76	0.24	0.33	1.55	0.12
Final Sat.:	545	3610	1373	414	2509	720	428	2881	398	276	1312	100

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.69	0.25	0.18	0.16	0.23	0.23	0.60	0.39	0.39	0.49	0.49	0.49
Crit Moves:	****											
Green/Cycle:	0.48	0.48	0.48	0.48	0.48	0.48	0.42	0.42	0.42	0.42	0.42	0.42
Volume/Cap:	1.42	0.53	0.38	0.34	0.48	0.48	1.42	0.92	0.92	1.16	1.16	1.16
Delay/Veh:	232.9	16.7	15.9	18.5	16.2	16.2	243.7	34.5	34.5	112.9	113	112.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	232.9	16.7	15.9	18.5	16.2	16.2	243.7	34.5	34.5	112.9	113	112.9
DesignQueue:	10	24	7	2	15	4	7	34	5	4	19	1

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #18 Broadway/ 20th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.520  
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 13.1  
Optimal Cycle: 56 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	30	0	0	30	0	0	18	0	0	18	0
Lanes:	0	1	0	1	0	1	0	1	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	27	360	91	36	573	40	38	249	43	70	196	84
Growth Adj:	1.22	1.22	1.22	1.17	1.17	1.17	1.01	1.01	1.01	1.02	1.02	1.02
Initial Bse:	33	439	111	42	670	47	38	251	43	71	200	86
Added Vol:	0	0	0	0	3	16	7	18	0	3	32	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	33	439	111	42	673	63	45	269	43	74	232	86
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.96	0.96	0.96	0.94	0.94	0.94	0.92	0.92	0.92
PHF Volume:	35	472	119	44	701	65	48	287	46	81	252	93
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	472	119	44	701	65	48	287	46	81	252	93
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	35	472	119	44	701	65	48	287	46	81	252	93

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.67	0.67	0.67	0.34	0.76	0.76	0.65	0.65	0.65	0.61	0.61	0.61
Lanes:	0.11	1.51	0.38	1.00	1.83	0.17	0.25	1.51	0.24	0.38	1.18	0.44
Final Sat.:	143	1909	483	640	2640	246	315	1868	301	438	1365	504

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.25	0.25	0.25	0.07	0.27	0.27	0.15	0.15	0.15	0.18	0.18	0.18
Crit Moves:	****											
Green/Cycle:	0.51	0.51	0.51	0.51	0.51	0.51	0.36	0.36	0.36	0.36	0.36	0.36
Volume/Cap:	0.48	0.48	0.48	0.13	0.52	0.52	0.43	0.43	0.43	0.52	0.52	0.52
Delay/Veh:	10.8	10.8	10.8	8.5	11.1	11.1	16.3	16.3	16.3	17.6	17.6	17.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.8	10.8	10.8	8.5	11.1	11.1	16.3	16.3	16.3	17.6	17.6	17.6
DesignQueue:	1	8	2	1	12	1	1	6	1	2	6	2



Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #19 Broadway/ 19th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.931  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 30.4  
Optimal Cycle: 89 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns representing different traffic flow metrics and 12 rows of data.

Saturation Flow Module table with 12 columns and 5 rows of data.

Capacity Analysis Module table with 12 columns and 12 rows of data.

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #20 Broadway/ 17th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.690  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 16.2  
Optimal Cycle: 60 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns representing different traffic flow metrics and 12 rows of data.

Saturation Flow Module table with 12 columns and 5 rows of data.

Capacity Analysis Module table with 12 columns and 12 rows of data.

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #21 Broadway/ 15th St.  
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Cycle (sec):	60	Critical Vol./Cap. (X):	0.514
Loss Time (sec):	8 (Y+R = 9 sec)	Average Delay (sec/veh):	10.0
Optimal Cycle:	33	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	25	0	0	25	0	0	0	0	0	0	0
Lanes:	0	0	2	0	0	2	0	0	0	0	0	2

Volume Module:

Base Vol:	0	556	0	0	720	0	0	0	0	0	0	250
Growth Adj:	1.07	1.07	1.07	1.01	1.01	1.01	1.00	1.00	1.00	1.31	1.31	1.31
Initial Bse:	0	595	0	0	727	0	0	0	0	0	0	328
Added Vol:	0	54	0	0	29	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	649	0	0	756	0	0	0	0	0	0	328
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	721	0	0	840	0	0	0	0	0	0	364
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	721	0	0	840	0	0	0	0	0	0	364
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	721	0	0	840	0	0	0	0	0	0	364

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.77	1.00	1.00	0.77	1.00	1.00	1.00	1.00	1.00	1.00	0.61
Lanes:	0.00	2.00	0.00	0.00	2.00	0.00	0.00	0.00	1.00	0.00	0.00	2.00
Final Sat.:	0	2924	0	0	2924	0	0	0	1900	0	0	2302

Capacity Analysis Module:

Vol/Sat:	0.00	0.25	0.00	0.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.16
Crit Moves:	****											
Green/Cycle:	0.00	0.56	0.00	0.00	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.31
Volume/Cap:	0.00	0.44	0.00	0.00	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.51
Delay/Veh:	0.0	7.9	0.0	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	17.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	7.9	0.0	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	17.7
DesignQueue:	0	11	0	0	13	0	0	0	0	0	0	9

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #22 Broadway/ 14th St.  
\*\*\*\*\*

Cycle (sec):	60	Critical Vol./Cap. (X):	0.622
Loss Time (sec):	8 (Y+R = 8 sec)	Average Delay (sec/veh):	14.4
Optimal Cycle:	60	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	26	0	0	26	0	0	26	0	0	26	0
Lanes:	0	0	1	0	0	1	0	0	1	0	0	1

Volume Module:

Base Vol:	0	433	29	0	921	87	0	273	152	0	397	106
Growth Adj:	1.07	1.07	1.07	1.04	1.04	1.04	1.02	1.02	1.02	1.25	1.25	1.25
Initial Bse:	0	463	31	0	958	90	0	278	155	0	496	133
Added Vol:	0	22	0	0	29	0	0	0	0	0	0	32
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	485	31	0	987	90	0	278	155	0	496	165
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	539	34	0	1096	101	0	309	172	0	551	183
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	539	34	0	1096	101	0	309	172	0	551	183
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	539	34	0	1096	101	0	309	172	0	551	183

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.76	0.76	1.00	0.75	0.75	1.00	0.73	0.73	1.00	0.74	0.74
Lanes:	0.00	1.88	0.12	0.00	2.75	0.25	0.00	1.28	0.72	0.00	1.50	0.50
Final Sat.:	0	2724	174	0	3939	361	0	1777	989	0	2115	701

Capacity Analysis Module:

Vol/Sat:	0.00	0.20	0.20	0.00	0.28	0.28	0.00	0.17	0.17	0.00	0.26	0.26
Crit Moves:	****											
Green/Cycle:	0.00	0.43	0.43	0.00	0.43	0.43	0.00	0.43	0.43	0.00	0.43	0.43
Volume/Cap:	0.00	0.46	0.46	0.00	0.64	0.64	0.00	0.40	0.40	0.00	0.60	0.60
Delay/Veh:	0.0	13.2	13.2	0.0	15.1	15.1	0.0	12.7	12.7	0.0	15.2	15.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	13.2	13.2	0.0	15.1	15.1	0.0	12.7	12.7	0.0	15.2	15.2
DesignQueue:	0	11	1	0	22	2	0	6	3	0	11	4

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #23 Frontage Rd./ W. Grand Ave.
Cycle (sec): 120 Critical Vol./Cap. (X): 1.550
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 225.7
Optimal Cycle: 120 Level Of Service: F
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 7 0 0 7 0 0 0
Lanes: 1 0 1 1 0 0 1 0 0 1 1 0 1 0 1 1 0
Volume Module:
Base Vol: 28 157 172 84 62 5 381 309 61 95 914 298
Growth Adj: 1.00 1.00 1.00 1.87 1.87 1.87 2.23 2.23 2.23 1.37 1.37 1.37
Initial Bse: 28 157 172 157 116 9 850 689 136 130 1252 408
Added Vol: 0 0 0 0 0 0 0 101 0 0 55 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 28 157 172 157 116 9 850 790 136 130 1307 408
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 29 165 181 165 122 10 894 832 143 137 1376 430
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 29 165 181 165 122 10 894 832 143 137 1376 430
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 29 165 181 165 122 10 894 832 143 137 1376 430
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.83 0.83 0.93 0.93 0.81 0.90 0.88 0.88 0.90 0.87 0.87
Lanes: 1.00 1.00 1.00 0.58 0.42 1.00 1.00 1.71 0.29 1.00 1.52 0.48
Final Sat.: 1718 1584 1584 1012 747 1537 1718 2867 494 1718 2525 788
Capacity Analysis Module:
Vol/Sat: 0.02 0.10 0.11 0.16 0.16 0.01 0.52 0.29 0.29 0.08 0.55 0.55
Crit Moves: \*\*\*\*
Green/Cycle: 0.07 0.07 0.07 0.11 0.11 0.11 0.34 0.54 0.54 0.15 0.35 0.35
Volume/Cap: 0.23 1.41 1.55 1.55 1.55 0.06 1.55 0.54 0.54 0.54 1.55 1.55
Delay/Veh: 53.3 265 324.0 326.0 326 48.5 295.8 18.3 18.3 49.6 291 290.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 53.3 265 324.0 326.0 326 48.5 295.8 18.3 18.3 49.6 291 290.6
DesignQueue: 2 10 11 10 8 1 45 27 5 8 68 21

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #24 Mandela Pkwy/ W. Grand Ave.
Cycle (sec): 120 Critical Vol./Cap. (X): 1.308
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 63.1
Optimal Cycle: 120 Level Of Service: E
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 30 0 0 30 0 0 80 0 0 80 0
Lanes: 0 1 0 1 0 0 1 0 1 0 1 0 1 0 1 1 0
Volume Module:
Base Vol: 107 144 127 35 132 105 127 332 57 220 604 25
Growth Adj: 1.18 1.18 1.18 1.83 1.83 1.83 2.36 2.36 2.36 1.45 1.45 1.45
Initial Bse: 126 170 150 64 242 192 300 784 135 319 876 36
Added Vol: 0 0 0 0 0 0 0 101 0 0 55 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 126 170 150 64 242 192 300 885 135 319 931 36
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 140 189 167 71 268 214 333 983 149 354 1034 40
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 140 189 167 71 268 214 333 983 149 354 1034 40
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 140 189 167 71 268 213 333 983 149 354 1034 40
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.48 0.48 0.48 0.57 0.57 0.57 0.21 0.89 0.89 0.20 0.90 0.90
Lanes: 0.57 0.76 0.67 0.26 0.97 0.77 1.00 1.74 0.26 1.00 1.93 0.7
Final Sat.: 521 701 619 280 1056 840 402 2923 445 373 3288 128
Capacity Analysis Module:
Vol/Sat: 0.27 0.27 0.27 0.25 0.25 0.25 0.83 0.34 0.34 0.95 0.31 0.31
Crit Moves: \*\*\*\*
Green/Cycle: 0.25 0.25 0.25 0.25 0.25 0.25 0.68 0.68 0.68 0.68 0.68 0.68
Volume/Cap: 1.08 1.08 1.08 1.02 1.02 1.02 1.21 0.49 0.49 1.39 0.46 0.46
Delay/Veh: 109.0 109 109.0 87.9 87.9 87.9 143.8 9.8 9.8 217.7 9.4 9.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 109.0 109 109.0 87.9 87.9 87.9 143.8 9.8 9.8 217.7 9.4 9.4
DesignQueue: 7 10 9 4 14 11 7 23 3 8 24 1

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #25 Northgate Ave./ W. Grand Ave.  
\*\*\*\*\*

Cycle (sec): 80 Critical Vol./Cap. (X): 0.968  
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 84.8  
Optimal Cycle: 120 Level Of Service: F

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	18	0	18	13	30	0	0	30	0
Lanes:	0	0	0	2	0	0	1	0	2	0	0	1

\*\*\*\*\*

Volume Module:

Base Vol:	0	0	0	140	0	70	338	737	0	0	647	406
Growth Adj:	1.00	1.00	1.00	1.05	1.05	1.05	1.41	1.41	1.41	1.31	1.31	1.31
Initial Bse:	0	0	0	147	0	74	477	1039	0	0	848	532
Added Vol:	0	0	0	48	0	24	24	59	0	0	16	15
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	195	0	98	501	1098	0	0	864	547
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	205	0	103	527	1156	0	0	909	576
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	205	0	103	527	1156	0	0	909	576
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	205	0	103	527	1156	0	0	909	576

\*\*\*\*\*

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.92	1.00	0.72	0.95	0.88	1.00	1.00	0.83	0.83
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	1.22	0.78
Final Sat.:	0	0	0	3502	0	1373	1805	3339	0	0	1926	1220

\*\*\*\*\*

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.06	0.00	0.07	0.29	0.35	0.00	0.00	0.47	0.47
Crit Moves:	****											
Green/Cycle:	0.00	0.00	0.00	0.23	0.00	0.23	0.24	0.63	0.00	0.00	0.39	0.39
Volume/Cap:	0.00	0.00	0.00	0.26	0.00	0.33	1.22	0.55	0.00	0.00	1.22	1.22
Delay/Veh:	0.0	0.0	0.0	26.3	0.0	28.8	149.7	9.7	0.0	0.0	132	132.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	26.3	0.0	28.8	149.7	9.7	0.0	0.0	132	132.1
DesignQueue:	0	0	0	7	0	4	19	21	0	0	28	17

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Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #26 Webster St./Grand Ave.  
\*\*\*\*\*

Cycle (sec): 80 Critical Vol./Cap. (X): 0.801  
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 26.2  
Optimal Cycle: 75 Level Of Service: C

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	23	0	0	31	0	13	31	0
Lanes:	0	0	0	0	1	0	0	1	0	1	0	1

\*\*\*\*\*

Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol:	0	0	0	80	284	76	14	577	169	95	312	22
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.42	1.42	1.42	1.40	1.40	1.40
Initial Bse:	0	0	0	80	284	76	20	819	240	133	437	31
Added Vol:	0	0	0	0	0	0	0	64	0	0	117	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	80	284	76	20	883	240	133	554	31
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	0	0	85	303	81	21	941	256	142	590	33
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	85	303	81	21	941	256	142	590	33
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	85	303	81	21	941	256	142	590	33

\*\*\*\*\*

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.85	0.85	0.72	0.80	0.80	0.80	0.80	0.95	0.87
Lanes:	0.00	0.00	0.00	0.22	0.78	1.00	0.03	1.55	0.42	1.00	1.89	0.11
Final Sat.:	0	0	0	355	1260	1373	53	2343	636	1805	3138	175

\*\*\*\*\*

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.24	0.24	0.06	0.40	0.40	0.40	0.08	0.19	0.19
Crit Moves:	****											
Green/Cycle:	0.00	0.00	0.00	0.29	0.29	0.29	0.45	0.45	0.45	0.16	0.61	0.61
Volume/Cap:	0.00	0.00	0.00	0.84	0.84	0.21	0.89	0.89	0.89	0.48	0.31	0.31
Delay/Veh:	0.0	0.0	0.0	42.9	42.9	22.8	29.5	29.5	29.5	36.0	7.8	7.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	42.9	42.9	22.8	29.5	29.5	29.5	36.0	7.8	7.8
DesignQueue:	0	0	0	3	10	3	1	25	7	5	11	1

\*\*\*\*\*

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #27 Harrison St./ Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 1.118
Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 60.5
Optimal Cycle: 120 Level Of Service: E

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 10 columns and 15 rows of traffic volume and adjustment factors.

Saturation Flow Module table with 10 columns and 5 rows of saturation flow and adjustment factors.

Capacity Analysis Module table with 10 columns and 10 rows of capacity and delay metrics.

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #28 El Embarcadero / Grand Ave.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.956
Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 33.8
Optimal Cycle: 120 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 10 columns and 15 rows of traffic volume and adjustment factors.

Saturation Flow Module table with 10 columns and 5 rows of saturation flow and adjustment factors.

Capacity Analysis Module table with 10 columns and 10 rows of capacity and delay metrics.

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #29 MacArthur Blvd./ Grand Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.941
Loss Time (sec): 12 (Y+R = 8 sec) Average Delay (sec/veh): 36.2
Optimal Cycle: 114 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 25 0 0 20 0 15 20 0
Lanes: 0 0 0 0 0 1 1 1 0 0 0 2 0 1 1 0 3 0 0

Volume Module: >> Count Date: 9 Nov 2000 <<

Base Vol: 0 0 0 278 650 225 0 657 497 239 710 0
Growth Adj: 1.00 1.00 1.00 1.09 1.09 1.09 1.07 1.07 1.07 1.07 1.07 1.07
Initial Bse: 0 0 0 303 709 245 0 703 532 256 760 0
Added Vol: 0 0 0 0 0 0 0 0 0 51 0 36 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 303 709 245 0 703 533 256 796 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 0 0 319 746 258 0 740 613 269 838 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 319 746 258 0 740 613 269 838 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 319 746 258 0 740 613 269 838 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.86 0.86 0.86 1.00 0.95 0.85 0.95 0.91 1.00
Lanes: 0.00 0.00 0.00 0.72 1.69 0.59 0.00 2.00 1.00 1.00 3.00 0.00
Final Sat.: 0 0 0 1179 2757 954 0 3610 1615 1805 5187 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.27 0.27 0.27 0.00 0.20 0.38 0.15 0.16 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.00 0.00 0.31 0.31 0.31 0.00 0.35 0.35 0.19 0.54 0.00
Volume/Cap: 0.00 0.00 0.00 0.87 0.87 0.87 0.00 0.59 1.09 0.80 0.30 0.00
Delay/Veh: 0.0 0.0 0.0 32.7 32.7 32.7 0.0 23.2 89.0 48.4 10.5 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 32.7 32.7 32.7 0.0 23.2 89.0 48.4 10.5 0.0
DesignQueue: 0 0 0 10 24 8 0 23 19 10 18 0

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #30 MacArthur Blvd./ Lake Shore Ave.

Cycle (sec): 80 Critical Vol./Cap. (X): 0.768
Loss Time (sec): 12 (Y+R = 9 sec) Average Delay (sec/veh): 30.0
Optimal Cycle: 76 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Prot+Permit
Rights: Include Ignore Include Include
Min. Green: 0 0 0 0 0 22 0 0 30 0 12 30 0
Lanes: 0 0 0 0 0 1 1 2 0 1 0 0 2 0 1 1 0 2 0 0

Volume Module: >> Count Date: 9 Jul 2003 <<

Base Vol: 0 0 0 220 1021 104 0 485 385 320 512 0
Growth Adj: 1.00 1.00 1.00 1.04 1.04 1.04 1.23 1.23 1.23 1.08 1.08 1.08
Initial Bse: 0 0 0 229 1062 108 0 597 474 346 553 0
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 229 1113 108 0 597 474 346 611 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.00 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 0 0 0 248 1207 0 0 647 514 375 663 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 248 1207 0 0 647 514 375 663 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 248 1207 0 0 647 514 375 663 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.77 0.77 1.00 1.00 0.95 0.85 0.49 0.95 1.00
Lanes: 0.00 0.00 0.00 1.00 3.00 1.00 0.00 2.00 1.00 1.00 2.00 0.00
Final Sat.: 0 0 0 1470 4409 1900 0 3610 1615 930 3610 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.17 0.27 0.00 0.00 0.18 0.32 0.40 0.18 0.00
Crit Moves: \*\*\*\*
Green/Cycle: 0.00 0.00 0.00 0.28 0.28 0.00 0.00 0.38 0.38 0.58 0.58 0.00
Volume/Cap: 0.00 0.00 0.00 0.61 1.00 0.00 0.00 0.48 0.85 0.70 0.32 0.00
Delay/Veh: 0.0 0.0 0.0 25.8 51.3 0.0 0.0 19.3 33.7 14.9 8.9 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 25.8 51.3 0.0 0.0 19.3 33.7 14.9 8.9 0.0
DesignQueue: 0 0 0 8 41 0 0 19 15 14 13 0

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #31 Lake Park Ave. / Lake Shore Ave.  
\*\*\*\*\*

Cycle (sec): 90 Critical Vol./Cap. (X): 0.834  
Loss Time (sec): 16 (Y+R = 12 sec) Average Delay (sec/veh): 46.3  
Optimal Cycle: 90 Level Of Service: D

\*\*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Split Phase	Split Phase	Protected	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	20 20 20	8 0 8	13 25 0	0 25 0
Lanes:	1 0 1 0 1	1 0 0 0 1	1 0 2 0 0	0 0 1 1 0

Volume Module: >> Count Date: 17 Jul 2003 <<

	North Bound	South Bound	East Bound	West Bound
Base Vol:	360 456 227	75 0 81	269 459 0	0 336 212
Growth Adj:	1.04 1.04 1.04	1.35 1.35 1.35	1.16 1.16 1.16	1.03 1.03 1.03
Initial Bse:	374 474 236	101 0 109	312 532 0	0 346 218
Added Vol:	58 36 0	0 0 0	0 0 0	0 0 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	432 510 236	101 0 109	312 532 0	0 346 218
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.97 0.97 0.97	0.97 0.97 0.97	0.97 0.97 0.97	0.97 0.97 0.97
PHF Volume:	447 527 244	105 0 113	322 550 0	0 358 226
Reduced Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	447 527 244	105 0 113	322 550 0	0 358 226
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	447 527 244	105 0 113	322 550 0	0 358 226

Saturation Flow Module:

Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjustment:	0.95 1.00 0.85	0.95 1.00 0.85	0.95 0.95 1.00	1.00 0.89 0.89
Lanes:	1.00 1.00 1.00	1.00 0.00 1.00	1.00 2.00 0.00	0.00 1.23 0.77
Final Sat.:	1805 1900 1615	1805 0 1615	1805 3610 0	0 2085 1316

Capacity Analysis Module:

Vol/Sat:	0.25 0.28 0.15	0.06 0.00 0.07	0.18 0.15 0.00	0.00 0.17 0.17
Crit Moves:	****	****	****	****
Green/Cycle:	0.28 0.28 0.28	0.09 0.00 0.09	0.18 0.46 0.00	0.00 0.28 0.28
Volume/Cap:	0.89 1.00 0.55	0.65 0.00 0.79	1.00 0.33 0.00	0.00 0.62 0.62
Delay/Veh:	49.4 72.1 29.1	48.8 0.0 64.6	87.4 15.8 0.0	0.0 29.6 29.6
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	49.4 72.1 29.1	48.8 0.0 64.6	87.4 15.8 0.0	0.0 29.6 29.6
DesignQueue:	17 21 9	5 0 5	14 16 0	0 13 8

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #32 Brush St. / 18th St.  
\*\*\*\*\*

Cycle (sec): 70 Critical Vol./Cap. (X): 0.385  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 10.6  
Optimal Cycle: 61 Level Of Service: B

\*\*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	0 45 0	0 0 0 0	0 0 8 0
Lanes:	0 0 0 0 0	0 0 3 1 0	0 0 0 0 0	1 0 2 0 0

Volume Module:

	North Bound	South Bound	East Bound	West Bound
Base Vol:	0 0 0 0	0 1000 84	0 0 0 0	150 196 0
Growth Adj:	1.00 1.00 1.00	1.07 1.07 1.07	1.00 1.00 1.00	1.06 1.06 1.06
Initial Bse:	0 0 0 0	0 1070 90	0 0 0 0	159 208 0
Added Vol:	0 0 0 0	0 0 0	0 0 0 0	63 0 0
PasserByVol:	0 0 0 0	0 0 0	0 0 0 0	0 0 0
Initial Fut:	0 0 0 0	0 1070 90	0 0 0 0	222 208 0
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.90 0.90 0.90	0.90 0.90 0.90	0.90 0.90 0.90	0.90 0.90 0.90
PHF Volume:	0 0 0 0	0 1189 100	0 0 0 0	247 231 0
Reduced Vol:	0 0 0 0	0 0 0	0 0 0 0	0 0 0
Reduced Vol:	0 0 0 0	0 1189 100	0 0 0 0	247 231 0
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	0 0 0 0	0 1189 100	0 0 0 0	247 231 0

Saturation Flow Module:

Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjustment:	1.00 1.00 1.00	1.00 0.90 0.90	1.00 1.00 1.00	0.85 0.95 1.00
Lanes:	0.00 0.00 0.00	0.00 3.69 0.31	0.00 0.00 0.00	1.00 2.00 0.00
Final Sat.:	0 0 0	0 6304 529	0 0 0	1615 3610 0

Capacity Analysis Module:

Vol/Sat:	0.00 0.00 0.00	0.00 0.19 0.19	0.00 0.00 0.00	0.15 0.06 0.00
Crit Moves:	****	****	****	****
Green/Cycle:	0.00 0.00 0.00	0.00 0.64 0.64	0.00 0.00 0.00	0.24 0.24 0.00
Volume/Cap:	0.00 0.00 0.00	0.00 0.29 0.29	0.00 0.00 0.00	0.63 0.26 0.00
Delay/Veh:	0.0 0.0 0.0	0.0 5.5 5.5	0.0 0.0 0.0	26.9 21.6 0.0
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	0.0 0.0 0.0	0.0 5.5 5.5	0.0 0.0 0.0	26.9 21.6 0.0
DesignQueue:	0 0 0	0 17 1	0 0 0	8 7 0

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #33 18th St./ Castro St.

Cycle (sec): 40 Critical Vol./Cap. (X): 1.008  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 61.1  
Optimal Cycle: 91 Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	20	0	0	0	0	0	0	0	0	13	0
Lanes:	1	1	3	0	0	0	0	0	0	0	0	1

Volume Module:

Base Vol:	212	1698	0	0	0	0	0	0	0	115	737
Growth Adj:	1.24	1.24	1.24	1.00	1.00	1.00	1.00	1.00	1.38	1.38	1.38
Initial Bse:	263	2106	0	0	0	0	0	0	0	159	1017
Added Vol:	0	0	0	0	0	0	0	0	0	63	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	263	2106	0	0	0	0	0	0	0	222	1017
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	292	2339	0	0	0	0	0	0	0	246	1130
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	292	2339	0	0	0	0	0	0	0	246	1130
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	292	2339	0	0	0	0	0	0	0	246	1130

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.77	0.77	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88
Lanes:	1.00	4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36	1.64
Final Sat.:	1470	5879	0	0	0	0	0	0	0	596	2736

Capacity Analysis Module:

Vol/Sat:	0.20	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.41
Crit Moves:	****										
Green/Cycle:	0.49	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.32
Volume/Cap:	0.41	0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.30	1.30
Delay/Veh:	6.9	11.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	157	157.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	6.9	11.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	157	157.1
DesignQueue:	4	30	0	0	0	0	0	0	0	4	19

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #34 MLK Jr. Way/ 18th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.487  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 14.2  
Optimal Cycle: 62 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	27	0	0	27	0	0	0	0	0	27	0
Lanes:	0	1	1	0	0	1	0	0	0	1	0	1

Volume Module: >> Count Date: 8 Jul 2003 <<

Base Vol:	63	134	0	0	182	133	0	0	0	18	725
Growth Adj:	1.16	1.16	1.16	1.24	1.24	1.24	1.00	1.00	1.00	1.66	1.66
Initial Bse:	73	155	0	0	226	165	0	0	0	30	1204
Added Vol:	0	0	0	0	0	0	0	0	0	4	63
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	73	155	0	0	226	165	0	0	0	34	1267
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	81	173	0	0	251	183	0	0	0	38	1407
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	81	173	0	0	251	183	0	0	0	38	1407
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	81	173	0	0	251	183	0	0	0	38	1407

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.66	0.66	1.00	1.00	0.82	0.82	1.00	1.00	1.00	1.00	0.86
Lanes:	0.64	1.36	0.00	0.00	1.16	0.84	0.00	0.00	0.00	1.00	3.00
Final Sat.:	800	1701	0	0	1808	1321	0	0	0	1900	4928

Capacity Analysis Module:

Vol/Sat:	0.10	0.10	0.00	0.00	0.14	0.14	0.00	0.00	0.00	0.02	0.29
Crit Moves:	****										
Green/Cycle:	0.44	0.44	0.00	0.00	0.44	0.44	0.00	0.00	0.00	0.44	0.44
Volume/Cap:	0.23	0.23	0.00	0.00	0.32	0.32	0.00	0.00	0.00	0.05	0.66
Delay/Veh:	11.5	11.5	0.0	0.0	12.1	12.1	0.0	0.0	0.0	10.2	15.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.5	11.5	0.0	0.0	12.1	12.1	0.0	0.0	0.0	10.2	15.4
DesignQueue:	2	3	0	0	5	4	0	0	0	1	29



Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #35 Brush St./ 17th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.435
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 11.8
Optimal Cycle: 48 Level Of Service: B

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North, South, East, West bounds.

Volume Module table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with columns: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #36 17th St / Castro St/I-980 Off-Ramp

Cycle (sec): 85 Critical Vol./Cap. (X): 0.962
Loss Time (sec): 12 (Y+R = 6 sec) Average Delay (sec/veh): 71.7
Optimal Cycle: 120 Level Of Service: E

Table with columns: Approach, Movement, Control, Rights, Min. Green, Lanes. Rows for North, South, East, West bounds.

Volume Module table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with columns: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns: Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #37 MLK Jr. Way/ 17th St

Cycle (sec): 60 Critical Vol./Cap. (X): 0.278
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 11.3
Optimal Cycle: 58 Level Of Service: B

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 8 Jul 2003 <<. Table with 12 columns for volume and adjustment factors.

Saturation Flow Module: Table with 12 columns for saturation flow and adjustment factors.

Capacity Analysis Module: Table with 12 columns for capacity and delay metrics.

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #38 Jefferson St./ 17th St.

Cycle (sec): 60 Critical Vol./Cap. (X): 0.288
Loss Time (sec): 8 (Y+R = 9 sec) Average Delay (sec/veh): 11.0
Optimal Cycle: 59 Level Of Service: B

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 8 Jul 2003 <<. Table with 12 columns for volume and adjustment factors.

Saturation Flow Module: Table with 12 columns for saturation flow and adjustment factors.

Capacity Analysis Module: Table with 12 columns for capacity and delay metrics.

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #39 Franklin St./ 17th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.611  
Loss Time (sec): 8 (Y+R = 7 sec) Average Delay (sec/veh): 52.9  
Optimal Cycle: 45 Level Of Service: D

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 8 Jul 2003 <<  
Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module:  
Table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:  
Table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #40 Webster St./ 17th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.544  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 13.1  
Optimal Cycle: 47 Level Of Service: B

Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 8 Jul 2003 <<  
Table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module:  
Table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:  
Table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

LEVEL OF SERVICE CALCULATION WORKSHEETS

YEAR 2010 NO PROJECT CONDITIONS  
WITH OPTIMIZED SIGNAL TIMING

Uptown Project Traffic Impact Analysis
Year 2010 No Project - AM Peak Hour
OPTIMIZED SIGNAL TIMING

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #14 Telegraph Ave./ 19th St.
Cycle (sec): 45 Critical Vol./Cap. (X): 0.761
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 14.1
Optimal Cycle: 46 Level Of Service: B
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 1 0 1 0 0 0 0 1 0 0 0 0 0 1 0 1 0
Volume Module:
Base Vol: 146 275 0 0 321 41 0 0 0 31 174 133
Growth Adj: 1.04 1.04 1.04 1.45 1.45 1.45 1.00 1.00 1.00 1.25 1.25 1.25
Initial Bse: 152 286 0 0 465 59 0 0 0 39 217 166
Added Vol: 0 1 0 0 5 0 0 0 0 0 0 1
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 152 287 0 0 470 59 0 0 0 39 217 167
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.81 0.81 0.81 0.82 0.82 0.82 0.90 0.90 0.90 0.83 0.83 0.83
PHF Volume: 187 354 0 0 574 73 0 0 0 47 263 202
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 187 354 0 0 574 73 0 0 0 47 263 202
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 187 354 0 0 574 73 0 0 0 47 263 202
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.53 0.85 1.00 1.00 0.75 0.75 1.00 1.00 1.00 0.78 0.78 0.78
Lanes: 1.00 1.00 0.00 0.00 0.89 0.11 0.00 0.00 0.00 0.18 1.03 0.79
Final Sat.: 1007 1615 0 0 1269 160 0 0 0 271 1519 1168
Capacity Analysis Module:
Vol/Sat: 0.19 0.22 0.00 0.00 0.45 0.45 0.00 0.00 0.00 0.17 0.17 0.17
Crit Moves:
Green/Cycle: 0.59 0.59 0.00 0.00 0.59 0.59 0.00 0.00 0.00 0.23 0.23 0.23
Volume/Cap: 0.31 0.37 0.00 0.00 0.76 0.76 0.00 0.00 0.00 0.76 0.76 0.76
Delay/Veh: 5.9 5.8 0.0 0.0 13.1 13.1 0.0 0.0 0.0 24.2 24.2 24.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 5.9 5.8 0.0 0.0 13.1 13.1 0.0 0.0 0.0 24.2 24.2 24.2
DesignQueue: 2 4 0 0 6 1 0 0 0 1 5 4

Uptown Project Traffic Impact Analysis
2010 No Project - PM Peak Hour
OPTIMIZED SIGNAL TIMING

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #6 San Pablo Ave./ 20th St.
Cycle (sec): 120 Critical Vol./Cap. (X): 0.549
Loss Time (sec): 12 (Y+R = 25 sec) Average Delay (sec/veh): 21.5
Optimal Cycle: 45 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 30 0 0 30 0
Lanes: 1 0 0 1 0 1 0 2 0 1 0 1 0 1 0 1 0
Volume Module:
Base Vol: 40 376 87 95 328 195 194 46 20 15 32 77
Growth Adj: 1.30 1.30 1.30 1.05 1.05 1.05 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 52 489 113 100 344 205 194 46 20 15 32 77
Added Vol: 0 0 6 10 0 0 0 0 0 0 4 0 6
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 52 489 119 110 344 205 194 46 20 19 32 83
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.94 0.94 0.00 0.91 0.91 0.91 0.92 0.92 0.92
PHF Volume: 58 543 132 117 366 0 213 51 22 21 35 90
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 58 543 132 117 366 0 213 51 22 21 35 90
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 58 543 132 117 366 0 213 51 22 21 35 90
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.54 0.83 0.83 0.28 0.95 1.00 0.60 0.60 0.60 0.64 0.64 0.64
Lanes: 1.00 0.80 0.20 1.00 2.00 1.00 1.00 0.70 0.30 0.37 0.63 1.00
Final Sat.: 1028 1261 307 536 3610 1900 1145 798 347 452 762 1215
Capacity Analysis Module:
Vol/Sat: 0.06 0.43 0.43 0.22 0.10 0.00 0.19 0.06 0.06 0.05 0.05 0.07
Crit Moves:
Green/Cycle: 0.65 0.65 0.65 0.65 0.65 0.00 0.25 0.25 0.25 0.25 0.25 0.25
Volume/Cap: 0.09 0.66 0.66 0.34 0.16 0.00 0.74 0.25 0.25 0.18 0.18 0.30
Delay/Veh: 8.0 16.3 16.3 12.0 8.3 0.0 53.8 36.6 36.6 35.9 35.9 38.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 8.0 16.3 16.3 12.0 8.3 0.0 53.8 36.6 36.6 35.9 35.9 38.0
DesignQueue: 1 14 3 3 9 0 11 3 1 1 2 5

Uptown Project Traffic Impact Analysis  
2010 No Project - PM Peak Hour  
OPTIMIZED SIGNAL TIMING

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #14 Telegraph Ave./ 19th St.  
\*\*\*\*\*

Cycle (sec): 45 Critical Vol./Cap. (X): 0.855  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 19.7  
Optimal Cycle: 58 Level Of Service: B

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	0	0	1	0	0	0	0	1	0

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	57	355	0	0	377	46	0	0	0	28	552	122
Growth Adj:	1.06	1.06	1.06	1.32	1.32	1.32	1.00	1.00	1.00	1.18	1.18	1.18
Initial Bse:	60	376	0	0	498	61	0	0	0	33	651	144
Added Vol:	0	2	0	0	4	0	0	0	0	0	0	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	60	378	0	0	502	61	0	0	0	33	651	147
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.93	0.93	0.93	1.00	1.00	1.00	0.94	0.94	0.94
PHF Volume:	62	390	0	0	539	65	0	0	0	35	693	156
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	390	0	0	539	65	0	0	0	35	693	156
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	62	390	0	0	539	65	0	0	0	35	693	156

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	0.62	0.85	1.00	1.00	0.75	0.75	1.00	1.00	1.00	0.83	0.83	0.83
Lanes:	1.00	1.00	0.00	0.00	0.89	0.11	0.00	0.00	0.00	0.08	1.57	0.35
Final Sat.:	1170	1615	0	0	1275	154	0	0	0	126	2477	559

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	****			****			****			****		
Green/Cycle:	0.49	0.49	0.00	0.00	0.49	0.49	0.00	0.00	0.00	0.33	0.33	0.33
Volume/Cap:	0.11	0.49	0.00	0.00	0.85	0.85	0.00	0.00	0.00	0.85	0.85	0.85
Delay/Veh:	6.4	9.7	0.0	0.0	22.5	22.5	0.0	0.0	0.0	23.1	23.1	23.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	6.4	9.7	0.0	0.0	22.5	22.5	0.0	0.0	0.0	23.1	23.1	23.1
DesignQueue:	1	5	0	0	7	1	0	0	0	1	12	3

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Uptown Project Traffic Impact Analysis  
2010 No Project - PM Peak Hour  
OPTIMIZED SIGNAL TIMING

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #23 Prontage Rd./ W. Grand Ave.  
\*\*\*\*\*

Cycle (sec): 150 Critical Vol./Cap. (X): 1.117  
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 101.4  
Optimal Cycle: 180 Level Of Service: F

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	7	0	0	7	0	0
Lanes:	1	0	1	0	1	0	1	0	1	1	0	1

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	28	157	172	84	62	5	381	309	61	95	914	298
Growth Adj:	1.00	1.00	1.00	1.13	1.13	1.13	1.41	1.41	1.41	1.18	1.18	1.18
Initial Bse:	28	157	172	95	70	6	537	436	86	112	1079	352
Added Vol:	0	0	0	0	0	0	0	4	0	0	3	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	28	157	172	95	70	6	537	440	86	112	1082	352
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	29	165	181	100	74	6	565	463	91	118	1138	370
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	165	181	100	74	6	565	463	91	118	1138	370
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	29	165	181	100	74	6	565	463	91	118	1138	370

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	0.90	0.83	0.83	0.93	0.93	0.81	0.90	0.88	0.88	0.90	0.87	0.87
Lanes:	1.00	1.00	1.00	0.58	0.42	1.00	1.00	1.67	0.33	1.00	1.51	0.49
Final Sat.:	1718	1584	1584	1012	747	1537	1718	2803	548	1718	2498	812

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	****			****			****			****		
Green/Cycle:	0.10	0.10	0.10	0.09	0.09	0.09	0.29	0.50	0.50	0.21	0.41	0.41
Volume/Cap:	0.17	1.02	1.12	1.12	1.12	0.04	1.12	0.33	0.33	0.33	1.12	1.12
Delay/Veh:	61.9	121	153.8	175.4	175	62.7	129.1	22.9	22.9	51.3	108	107.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	61.9	121	153.8	175.4	175	62.7	129.1	22.9	22.9	51.3	108	107.7
DesignQueue:	2	13	14	8	6	0	36	20	4	8	63	20

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LEVEL OF SERVICE CALCULATION WORKSHEETS

YEAR 2010 PLUS PROJECT CONDITIONS  
WITH OPTIMIZED SIGNAL TIMING

Uptown Project Traffic Impact Analysis
Year 2010 plus Project - AM Peak Hour
OPTIMIZED SIGNAL TIMING

Level Of Service Computation Report

1997 HCM Operations Method (Future Volume Alternative)

Intersection #14 Telegraph Ave./ 19th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 0.920
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 22.3
Optimal Cycle: 71 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 1 0 1 0 0 0 0 0 1 0 0 0 0 0 0 1 0 1 0

Volume Module:

Base Vol: 146 275 0 0 321 41 0 0 0 31 174 133
Growth Adj: 1.04 1.04 1.04 1.45 1.45 1.45 1.00 1.00 1.00 1.25 1.25 1.25
Initial Bse: 152 286 0 0 465 59 0 0 0 39 217 166
Added Vol: 5 54 0 0 59 80 0 0 0 0 6 12
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 157 340 0 0 524 139 0 0 0 39 224 178
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.81 0.81 0.81 0.82 0.82 0.82 0.90 0.90 0.90 0.83 0.83 0.83
PHF Volume: 194 420 0 0 640 170 0 0 0 47 270 215
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 194 420 0 0 640 170 0 0 0 47 270 215
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 194 420 0 0 640 170 0 0 0 47 270 215

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.50 0.85 1.00 1.00 0.74 0.74 1.00 1.00 1.00 0.77 0.77 0.77
Lanes: 1.00 1.00 0.00 0.00 0.79 0.21 0.00 0.00 0.00 0.18 1.01 0.81
Final Sat.: 942 1615 0 0 1112 296 0 0 0 259 1494 1191

Capacity Analysis Module:

Vol/Sat: 0.21 0.26 0.00 0.00 0.58 0.58 0.00 0.00 0.00 0.18 0.18 0.18
Crit Moves: \*\*\*\*
Green/Cycle: 0.63 0.63 0.00 0.00 0.63 0.63 0.00 0.00 0.00 0.20 0.20 0.20
Volume/Cap: 0.33 0.42 0.00 0.00 0.92 0.92 0.00 0.00 0.00 0.92 0.92 0.92
Delay/Veh: 5.5 5.5 0.0 0.0 23.6 23.6 0.0 0.0 0.0 39.9 39.9 39.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 5.5 5.5 0.0 0.0 23.6 23.6 0.0 0.0 0.0 39.9 39.9 39.9
DesignQueue: 2 4 0 0 7 2 0 0 0 1 6 4

Uptown Project Traffic Impact Analysis
Year 2010 Plus Project - PM Peak Hour

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #6 San Pablo Ave./ 20th St.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.837
Loss Time (sec): 12 (Y+R = 25 sec) Average Delay (sec/veh): 42.8
Optimal Cycle: OPTIMIZED Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Ignore Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 1 0 0 1 0 1 0 2 0 1 0 1 0 1 0 1 0 1 0

Volume Module:

Base Vol: 40 376 87 95 328 195 194 46 20 15 32 77
Growth Adj: 1.30 1.30 1.30 1.05 1.05 1.05 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 52 489 113 100 344 205 194 46 20 15 32 77
Added Vol: 0 65 57 72 40 0 0 0 0 30 0 46
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 52 554 170 172 384 205 194 46 20 45 32 123
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.94 0.94 0.00 0.91 0.91 0.91 0.92 0.92 0.92
PHF Volume: 58 615 189 183 409 0 213 51 22 49 35 134
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 58 615 189 183 409 0 213 51 22 49 35 134
PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 58 615 189 183 409 0 213 51 22 49 35 134

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.52 0.82 0.82 0.14 0.95 1.00 0.58 0.58 0.58 0.62 0.62 0.62
Lanes: 1.00 0.77 0.23 1.00 2.00 1.00 1.00 0.70 0.30 0.58 0.42 1.00
Final Sat.: 980 1192 366 268 3610 1900 1094 762 331 683 486 1169

Capacity Analysis Module:

Vol/Sat: 0.06 0.52 0.52 0.68 0.11 0.00 0.19 0.07 0.07 0.07 0.07 0.11
Crit Moves: \*\*\*\*
Green/Cycle: 0.57 0.57 0.57 0.57 0.57 0.00 0.33 0.33 0.33 0.33 0.33 0.33
Volume/Cap: 0.10 0.91 0.91 1.20 0.20 0.00 0.58 0.20 0.20 0.21 0.21 0.34
Delay/Veh: 12.3 38.4 38.4 164.1 12.9 0.0 38.2 28.9 28.9 29.2 29.2 31.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 12.3 38.4 38.4 164.1 12.9 0.0 38.2 28.9 28.9 29.2 29.2 31.6
DesignQueue: 2 20 6 5 12 0 10 2 1 2 2 6



Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #14 Telegraph Ave./ 19th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 1.001  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 36.2  
Optimal Cycle: 97 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	0	0	1	0	0	0	0	1	0

Volume Module:

Base Vol:	57	355	0	0	377	46	0	0	0	28	552	122
Growth Adj:	1.06	1.06	1.06	1.32	1.32	1.32	1.00	1.00	1.00	1.18	1.18	1.18
Initial Bse:	60	376	0	0	498	61	0	0	0	33	651	144
Added Vol:	23	62	0	0	50	69	0	0	0	0	27	48
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	83	438	0	0	548	130	0	0	0	33	678	192
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.93	0.93	0.93	1.00	1.00	1.00	0.94	0.94	0.94
PHF Volume:	86	452	0	0	589	139	0	0	0	35	722	204
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	86	452	0	0	589	139	0	0	0	35	722	204
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	86	452	0	0	589	139	0	0	0	35	722	204

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.60	0.85	1.00	1.00	0.74	0.74	1.00	1.00	1.00	0.82	0.82	0.82
Lanes:	1.00	1.00	0.00	0.00	0.81	0.19	0.00	0.00	0.00	0.07	1.51	0.42
Final Sat.:	1148	1615	0	0	1141	270	0	0	0	114	2350	665

Capacity Analysis Module:

Vol/Sat:	0.07	0.28	0.00	0.00	0.52	0.52	0.00	0.00	0.00	0.31	0.31	0.31
Crit Moves:	****											
Green/Cycle:	0.52	0.52	0.00	0.00	0.52	0.52	0.00	0.00	0.00	0.31	0.31	0.31
Volume/Cap:	0.15	0.54	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	6.2	9.9	0.0	0.0	44.5	44.5	0.0	0.0	0.0	44.9	44.9	44.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	6.2	9.9	0.0	0.0	44.5	44.5	0.0	0.0	0.0	44.9	44.9	44.9
DesignQueue:	1	6	0	0	8	2	0	0	0	1	13	4

Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #23 Frontage Rd./ W. Grand Ave.

Cycle (sec): 150 Critical Vol./Cap. (X): 1.135  
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 104.0  
Optimal Cycle: OPTIMIZED Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	7	0	0	7	0	0
Lanes:	1	0	1	0	1	0	1	0	1	1	0	1

Volume Module:

Base Vol:	28	157	172	84	62	5	381	309	61	95	914	298
Growth Adj:	1.00	1.00	1.00	1.13	1.13	1.13	1.41	1.41	1.41	1.18	1.18	1.18
Initial Bse:	28	157	172	95	70	6	537	436	86	112	1079	352
Added Vol:	0	0	0	0	0	0	0	101	0	0	55	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	28	157	172	95	70	6	537	537	86	112	1134	352
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	29	165	181	100	74	6	565	565	91	118	1193	370
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	165	181	100	74	6	565	565	91	118	1193	370
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	29	165	181	100	74	6	565	565	91	118	1193	370

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.83	0.83	0.93	0.93	0.81	0.90	0.89	0.89	0.90	0.87	0.87
Lanes:	1.00	1.00	1.00	0.58	0.42	1.00	1.00	1.72	0.28	1.00	1.53	0.47
Final Sat.:	1718	1584	1584	1012	747	1537	1718	2900	465	1718	2529	784

Capacity Analysis Module:

Vol/Sat:	0.02	0.10	0.11	0.10	0.10	0.00	0.33	0.19	0.19	0.07	0.47	0.47
Crit Moves:	****											
Green/Cycle:	0.10	0.10	0.10	0.09	0.09	0.09	0.29	0.52	0.52	0.18	0.42	0.42
Volume/Cap:	0.17	1.04	1.14	1.14	1.14	0.04	1.14	0.37	0.37	0.37	1.14	1.14
Delay/Veh:	62.2	126	160.6	182.1	182	62.9	136.3	21.4	21.4	54.4	114	114.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	62.2	126	160.6	182.1	182	62.9	136.3	21.4	21.4	54.4	114	114.1
DesignQueue:	2	13	14	8	6	0	36	24	4	8	65	20

LEVEL OF SERVICE CALCULATION WORKSHEETS

YEAR 2025 NO PROJECT CONDITIONS  
WITH OPTIMIZED SIGNAL TIMING

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - AM Peak Hour  
OPTIMIZED SIGNAL TIMING

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #11 Telegraph Ave./ W Grand Ave.  
\*\*\*\*\*

Cycle (sec):	80	Critical Vol./Cap. (X):	1.103
Loss Time (sec):	12 (Y+R = 6 sec)	Average Delay (sec/veh):	41.1
Optimal Cycle:	180	Level Of Service:	D

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R

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Control:	Prot+Permit	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Lanes:	1 0 1 1 0	1 0 1 1 0	1 0 1 1 0	1 0 1 1 0

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Volume Module:

Base Vol:	77 225	21 64 339	70 107 779	300 99 515 41
Growth Adj:	1.84 1.84	1.84 1.21 1.21	1.21 1.26 1.26	1.26 1.75 1.75 1.75
Initial Bse:	142 414	39 77 410	85 135 982 378	173 901 72
Added Vol:	2 1 6	0 0 0	0 0 0 1	2 0 0 0
PasserByVol:	0 0 0	0 0 0	0 0 0 0	0 0 0 0
Initial Fut:	144 415	45 77 410	85 135 982 379	175 901 72
User Adj:	1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.95 0.95	0.95 0.95 0.95	0.95 0.95 0.95	0.95 0.95 0.95
PHF Volume:	151 437	47 82 432	89 142 1033 399	184 949 76
Reduct Vol:	0 0 0	0 0 0	0 0 0 0	0 0 0 0
Reduced Vol:	151 437	47 82 432	89 142 1033 399	184 949 76
PCE Adj:	1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	151 437	47 82 432	89 142 1033 399	184 949 76

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Saturation Flow Module:

Sat/Lane:	1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjustment:	0.62 0.94	0.94 0.44 0.93	0.93 0.24 0.91	0.91 0.13 0.94 0.94
Lanes:	1.00 1.81	0.19 1.00 1.66	0.34 1.00 1.44	0.56 1.00 1.85 0.15
Final Sat.:	1181 3211	345 828 2914	602 460 2495	963 255 3307 263

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Capacity Analysis Module:

Vol/Sat:	0.13 0.14	0.14 0.10 0.15	0.15 0.31 0.41	0.41 0.72 0.29	0.29
Crit Moves:	****	****	****	****	****
Green/Cycle:	0.18 0.18	0.18 0.11 0.11	0.11 0.67 0.67	0.67 0.67 0.67	0.67
Volume/Cap:	0.71 0.76	0.76 0.86 1.29	1.29 0.46 0.62	0.62 1.08 0.43	0.43
Delay/Veh:	41.8 36.4	36.4 84.7 185	184.6 7.4 7.9	7.9 105.1 6.2	6.2
User DelAdj:	1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00
AdjDel/Veh:	41.8 36.4	36.4 84.7 185	184.6 7.4 7.9	7.9 105.1 6.2	6.2
DesignQueue:	6 16	2 3 18	4 2 17	6 3 15	1

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Uptown Project Traffic Impact Analysis  
Year 2025 No Project - AM Peak Hour  
OPTIMIZED SIGNAL TIMING

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #12 Telegraph Ave./ 20th St.  
\*\*\*\*\*

Cycle (sec):	45	Critical Vol./Cap. (X):	0.645
Loss Time (sec):	8 (Y+R = 6 sec)	Average Delay (sec/veh):	9.7
Optimal Cycle:	37	Level Of Service:	A

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R

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Control:	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Lanes:	1 0 0 1 0	1 0 1 1 0	0 1 0 1 0	0 1 0 1 0

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Volume Module:

Base Vol:	25 313	26 197 419	73 15 66 34	60 148 77
Growth Adj:	1.63 1.63	1.63 1.36 1.36	1.36 1.11 1.11	1.11 1.00 1.00 1.00
Initial Bse:	41 510	42 268 570	99 17 73 38	60 148 77
Added Vol:	2 0 0	0 0 0 3	0 2 5	0 1 0 0
PasserByVol:	0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Initial Fut:	43 510	42 268 570	102 17 75 43	60 149 77
User Adj:	1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.93 0.93	0.93 0.94 0.94	0.94 0.90 0.90	0.90 0.93 0.93 0.93
PHF Volume:	46 549	46 285 606	109 19 84 47	65 160 83
Reduct Vol:	0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Reduced Vol:	46 549	46 285 606	109 19 84 47	65 160 83
PCE Adj:	1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	46 549	46 285 606	109 19 84 47	65 160 83

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Saturation Flow Module:

Sat/Lane:	1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjustment:	0.39 0.84	0.84 0.36 0.86	0.86 0.72 0.72	0.72 0.72 0.72
Lanes:	1.00 0.92	0.08 1.00 1.70	0.30 0.25 1.12	0.63 0.42 1.04 0.54
Final Sat.:	733 1473	122 682 2766	496 340 1539	874 576 1430 739

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Capacity Analysis Module:

Vol/Sat:	0.06 0.37	0.37 0.42 0.22	0.22 0.05 0.05	0.05 0.11 0.11	0.11
Crit Moves:	****	****	****	****	****
Green/Cycle:	0.65 0.65	0.65 0.65 0.65	0.65 0.17 0.17	0.17 0.17 0.17	0.17
Volume/Cap:	0.10 0.57	0.57 0.64 0.34	0.34 0.31 0.31	0.31 0.64 0.64	0.64
Delay/Veh:	3.4 6.8	6.8 11.8 4.0	4.0 17.9 17.9	17.9 23.9 23.9	23.9
User DelAdj:	1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00
AdjDel/Veh:	3.4 6.8	6.8 11.8 4.0	4.0 17.9 17.9	17.9 23.9 23.9	23.9
DesignQueue:	0 5	0 3 6	1 0 2	1 1 3	2

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Uptown Project Traffic Impact Analysis  
Year 2025 No Project - AM Peak Hour  
OPTIMIZED SIGNAL TIMING

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #14 Telegraph Ave./ 19th St.  
\*\*\*\*\*

Cycle (sec):	45	Critical Vol./Cap. (X):	0.890
Loss Time (sec):	8 (Y+R = 6 sec)	Average Delay (sec/veh):	21.2
Optimal Cycle:	64	Level Of Service:	C

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R

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Control:	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
Lanes:	1 0 1 0 0	0 0 0 1 0	0 0 0 0 0	0 1 0 1 0

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Volume Module:

Base Vol:	146	275	0	0	321	41	0	0	0	31	174	133
Growth Adj:	1.04	1.04	1.04	1.57	1.57	1.57	1.00	1.00	1.00	1.75	1.75	1.75
Initial Bse:	152	286	0	0	504	64	0	0	0	54	305	233
Added Vol:	0	1	0	0	5	0	0	0	0	0	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	152	287	0	0	509	64	0	0	0	54	305	234
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.81	0.81	0.81	0.82	0.82	0.82	0.90	0.90	0.90	0.83	0.83	0.83
PHF Volume:	187	354	0	0	621	79	0	0	0	66	368	282
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	187	354	0	0	621	79	0	0	0	66	368	282
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	187	354	0	0	621	79	0	0	0	66	368	282

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Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.57	0.85	1.00	1.00	0.75	0.75	1.00	1.00	1.00	0.78	0.78	0.78
Lanes:	1.00	1.00	0.00	0.00	0.89	0.11	0.00	0.00	0.00	0.18	1.03	0.79
Final Sat.:	1073	1615	0	0	1269	160	0	0	0	271	1520	1167

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Capacity Analysis Module:

Vol/Sat:	0.17	0.22	0.00	0.00	0.49	0.49	0.00	0.00	0.00	0.24	0.24	0.24
Crit Moves:	****											
Green/Cycle:	0.55	0.55	0.00	0.00	0.55	0.55	0.00	0.00	0.00	0.27	0.27	0.27
Volume/Cap:	0.32	0.40	0.00	0.00	0.89	0.89	0.00	0.00	0.00	0.89	0.89	0.89
Delay/Veh:	6.9	7.2	0.0	0.0	23.3	23.3	0.0	0.0	0.0	29.8	29.8	29.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	6.9	7.2	0.0	0.0	23.3	23.3	0.0	0.0	0.0	29.8	29.8	29.8
DesignQueue:	2	4	0	0	8	1	0	0	0	1	7	5

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Uptown Project Traffic Impact Analysis  
Year 2025 No Project - AM Peak Hour  
OPTIMIZED SIGNAL TIMING

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #23 Frontage Rd./ W. Grand Ave.  
\*\*\*\*\*

Cycle (sec):	180	Critical Vol./Cap. (X):	1.168
Loss Time (sec):	16 (Y+R = 4 sec)	Average Delay (sec/veh):	128.3
Optimal Cycle:	180	Level Of Service:	F

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R

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Control:	Split Phase	Split Phase	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
Lanes:	1 0 1 1 0	0 1 0 0 1	1 0 1 1 0	1 0 1 1 0

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Volume Module:

Base Vol:	51	127	138	156	122	49	56	308	48	104	532	244
Growth Adj:	1.02	1.02	1.02	3.34	3.34	3.34	1.02	1.02	1.02	1.52	1.52	1.52
Initial Bse:	52	130	141	521	407	164	57	314	49	158	809	371
Added Vol:	0	0	0	0	0	0	0	2	0	0	4	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	52	130	141	521	407	164	57	316	49	158	813	371
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	55	136	148	548	429	172	60	333	52	166	855	390
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	136	148	548	429	172	60	333	52	166	855	390
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	55	136	148	548	429	172	60	333	52	166	855	390

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Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.83	0.83	0.93	0.93	0.81	0.90	0.89	0.89	0.90	0.86	0.86
Lanes:	1.00	1.00	1.00	0.56	0.44	1.00	1.00	1.73	0.27	1.00	1.37	0.63
Final Sat.:	1718	1584	1584	988	772	1537	1718	2916	452	1718	2249	1026

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Capacity Analysis Module:

Vol/Sat:	0.03	0.09	0.09	0.56	0.56	0.11	0.03	0.11	0.11	0.10	0.38	0.38
Crit Moves:	****											
Green/Cycle:	0.08	0.08	0.08	0.48	0.48	0.48	0.03	0.19	0.19	0.16	0.33	0.33
Volume/Cap:	0.40	1.07	1.17	1.17	1.17	0.24	1.17	0.59	0.59	0.59	1.17	1.17
Delay/Veh:	80.6	159	193.5	135.6	136	28.1	265.9	67.8	67.8	73.2	147	146.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	80.6	159	193.5	135.6	136	28.1	265.9	67.8	67.8	73.2	147	146.6
DesignQueue:	5	13	14	33	26	9	6	28	4	14	63	29

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Uptown Project Traffic Impact Analysis  
 Year 2025 No Project - PM Peak Hour  
 OPTIMIZED SIGNAL TIMING

Level of Service Computation Report  
 1997 HCM Operations Method (Future Volume Alternative)

Intersection #3 San Pablo Ave. / 27th

Cycle (sec): 90 Critical Vol./Cap. (X): 1.435  
 Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 40.3  
 Optimal Cycle: 180 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	1	0	1	0	0	1	0	1	0

Volume Module:

Base Vol:	8	960	60	174	638	7	21	40	19	53	87	90
Growth Adj:	1.42	1.42	1.42	1.50	1.50	1.50	1.46	1.46	1.46	1.41	1.41	1.41
Initial Bse:	11	1363	85	261	957	11	31	58	28	75	123	127
Added Vol:	0	2	0	0	2	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	1365	85	261	959	11	31	58	28	75	123	127
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	13	1517	95	290	1066	12	34	65	31	83	136	141
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	1517	95	290	1066	12	34	65	31	83	136	141
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	13	1517	95	290	1066	12	34	65	31	83	136	141

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	0.89	0.89	0.13	0.95	0.95	0.51	0.51	0.51	0.94	1.00	0.85
Lanes:	0.01	1.87	0.12	1.00	1.98	0.02	0.26	0.50	0.24	1.00	1.00	1.00
Final Sat.:	26	3147	196	247	3564	39	255	486	231	1792	1900	1615

Capacity Analysis Module:

Vol/Sat:	0.48	0.48	0.48	1.17	0.30	0.30	0.13	0.13	0.13	0.05	0.07	0.09
Crit Moves:	****			****								
Green/Cycle:	0.82	0.82	0.82	0.82	0.82	0.82	0.09	0.09	0.09	0.09	0.09	0.09
Volume/Cap:	0.59	0.59	0.59	1.44	0.37	0.37	1.44	1.44	1.44	0.50	0.77	0.94
Delay/Veh:	3.8	3.8	3.8	230.0	2.5	2.5	288.6	289	288.6	49.0	67.0	99.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	3.8	3.8	3.8	230.0	2.5	2.5	288.6	289	288.6	49.0	67.0	99.0
DesignQueue:	0	16	1	3	10	0	2	3	1	4	6	7

Uptown Project Traffic Impact Analysis  
 Year 2025 No Project - PM Peak Hour  
 OPTIMIZED SIGNAL TIMING

Level of Service Computation Report  
 1997 HCM Operations Method (Future Volume Alternative)

Intersection #5 San Pablo Ave./ Grand Ave

Cycle (sec): 95 Critical Vol./Cap. (X): 0.973  
 Loss Time (sec): 12 (Y+R = 8 sec) Average Delay (sec/veh): 39.0  
 Optimal Cycle: 152 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Ovl			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	1	0	1	1	0	2	0	1	0

Volume Module:

Base Vol:	112	489	14	122	373	7	31	663	33	31	677	101
Growth Adj:	1.53	1.53	1.53	1.24	1.24	1.24	1.76	1.76	1.76	1.82	1.82	1.82
Initial Bse:	171	748	21	151	463	9	55	1167	58	56	1232	184
Added Vol:	3	2	1	0	4	0	0	0	4	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	174	750	22	151	467	9	55	1167	62	58	1232	184
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	184	790	24	159	491	9	57	1228	65	61	1297	193
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	184	790	24	159	491	9	57	1228	65	61	1297	193
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	184	790	24	159	491	9	57	1228	65	61	1297	193

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.88	0.88	0.95	0.88	0.88	0.10	0.95	0.72	0.69	0.69	0.72
Lanes:	1.00	1.94	0.06	1.00	1.96	0.04	1.00	2.00	1.00	0.09	1.91	1.00
Final Sat.:	1805	3229	97	1805	3268	61	190	3610	1373	119	2506	1373

Capacity Analysis Module:

Vol/Sat:	0.10	0.24	0.24	0.09	0.15	0.15	0.30	0.34	0.05	0.52	0.52	0.14
Crit Moves:	****			****								
Green/Cycle:	0.14	0.25	0.25	0.09	0.20	0.20	0.53	0.53	0.67	0.53	0.53	0.62
Volume/Cap:	0.74	0.97	0.97	0.97	0.74	0.74	0.57	0.64	0.07	0.97	0.97	0.23
Delay/Veh:	56.9	60.5	60.5	106.8	42.4	42.4	36.1	17.4	5.6	40.1	40.1	8.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	56.9	60.5	60.5	106.8	42.4	42.4	36.1	17.4	5.6	40.1	40.1	8.5
DesignQueue:	9	33	1	8	21	0	1	33	1	2	35	4

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
OPTIMIZED SIGNAL TIMING

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #6 San Pablo Ave./ 20th St.
Cycle (sec): 80 Critical Vol./Cap. (X): 0.584
Loss Time (sec): 12 (Y+R = 25 sec) Average Delay (sec/veh): 27.0
Optimal Cycle: 45 Level of Service: C

Uptown Project Traffic Impact Analysis
Year 2025 No Project - PM Peak Hour
OPTIMIZED SIGNAL TIMING

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)
Intersection #11 Telegraph Ave./ W. Grand Ave.
Cycle (sec): 65 Critical Vol./Cap. (X): 1.463
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 46.8
Optimal Cycle: 180 Level of Service: D

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
OPTIMIZED SIGNAL TIMING

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #12 Telegraph Ave. / 20th St.  
\*\*\*\*\*

Cycle (sec): 45 Critical Vol./Cap. (X): 1.179  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 71.2  
Optimal Cycle: 180 Level Of Service: E

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Rights:	0 0 0			0 0 0			0 0 0			0 0 0		
Min. Green:	0 0 0			0 0 0			0 0 0			0 0 0		
Lanes:	1	0	1	0	1	0	0	1	0	0	1	0

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	18	354	43	90	393	25	90	203	37	31	107	115
Growth Adj:	2.91	2.91	2.91	1.31	1.31	1.31	1.16	1.16	1.16	1.01	1.01	1.01
Initial Bse:	52	1030	125	118	515	33	104	235	43	31	108	116
Added Vol:	5	0	0	0	0	0	0	1	4	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	57	1030	125	118	515	42	104	236	47	31	110	116
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.93	0.93	0.93	0.91	0.91	0.91	0.90	0.90	0.90
PHF Volume:	64	1145	139	127	554	45	115	260	52	35	122	129
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	64	1145	139	127	554	45	115	260	52	35	122	129
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	64	1145	139	127	554	45	115	260	52	35	122	129

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	0.44	0.84	0.84	0.13	0.87	0.87	0.69	0.69	0.69	0.61	0.61	0.61
Lanes:	1.00	0.89	0.11	1.00	1.85	0.15	0.54	1.22	0.24	0.24	0.85	0.91
Final Sat.:	828	1417	172	247	3055	248	708	1604	318	283	995	1050

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	****			****			****			****		
Green/Cycle:	0.68	0.68	0.68	0.68	0.68	0.68	0.14	0.14	0.14	0.14	0.14	0.14
Volume/Cap:	0.11	1.18	1.18	0.75	0.26	0.26	1.18	1.18	1.18	0.89	0.89	0.89
Delay/Veh:	2.8	97.6	97.6	30.5	3.0	3.0	125.2	125	125.2	48.6	48.6	48.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	2.8	97.6	97.6	30.5	3.0	3.0	125.2	125	125.2	48.6	48.6	48.6
DesignQueue:	1	11	1	1	5	0	3	6	1	1	3	3

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
OPTIMIZED SIGNAL TIMING

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #13 Telegraph / Williams St  
\*\*\*\*\*

Cycle (sec): 80 Critical Vol./Cap. (X): 0.835  
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 3.9  
Optimal Cycle: 69 Level Of Service: A

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted Include			Permitted Include			Permitted Include			Permitted Include		
Rights:	0 0 0			0 0 0			0 0 0			0 0 0		
Min. Green:	0 0 0			0 0 0			0 0 0			0 0 0		
Lanes:	1	0	1	0	0	1	0	0	1	0	0	0

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	14	440	0	0	400	28	1	0	1	0	0	0
Growth Adj:	2.91	2.91	2.91	1.32	1.32	1.32	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	41	1280	0	0	528	37	1	0	1	0	0	0
Added Vol:	0	5	0	0	4	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	41	1285	0	0	532	37	1	0	1	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	45	1428	0	0	591	41	1	0	1	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	1428	0	0	591	41	1	0	1	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	45	1428	0	0	591	41	1	0	1	0	0	0

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	0.61	1.00	1.00	1.00	0.89	0.89	0.83	1.00	0.83	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.94	0.06	0.50	0.00	0.50	0.00	0.00	0.00
Final Sat.:	1155	1900	0	0	1583	110	791	0	791	0	0	0

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	****			****			****			****		
Green/Cycle:	0.90	0.90	0.00	0.00	0.90	0.90	0.00	0.00	0.00	0.00	0.00	0.00
Volume/Cap:	0.04	0.84	0.00	0.00	0.41	0.41	xxxx	0.00	xxxx	0.00	0.00	0.00
Delay/Veh:	0.4	5.4	0.0	0.0	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.4	5.4	0.0	0.0	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
DesignQueue:	0	8	0	0	3	0	0	0	0	0	0	0

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
OPTIMIZED SIGNAL TIMING

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #14 Telegraph Ave./ 19th St.  
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Cycle (sec): 120 Critical Vol./Cap. (X): 1.056  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 65.5  
Optimal Cycle: 180 Level Of Service: E

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	0	0	1	0	0	0	0	1	0

Volume Module:

Base Vol:	57	355	0	0	377	46	0	0	0	28	552	122
Growth Adj:	1.06	1.06	1.06	1.32	1.32	1.32	1.00	1.00	1.00	2.38	2.38	2.38
Initial Bse:	60	376	0	0	498	61	0	0	0	67	1314	290
Added Vol:	0	2	0	0	4	0	0	0	0	0	1	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	60	378	0	0	502	61	0	0	0	67	1315	292
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.93	0.93	0.93	1.00	1.00	1.00	0.94	0.94	0.94
PHF Volume:	62	390	0	0	539	65	0	0	0	71	1399	311
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	390	0	0	539	65	0	0	0	71	1399	311
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	62	390	0	0	539	65	0	0	0	71	1399	311

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.72	0.85	1.00	1.00	0.75	0.75	1.00	1.00	1.00	0.83	0.83	0.83
Lanes:	1.00	1.00	0.00	0.00	0.89	0.11	0.00	0.00	0.00	0.08	1.57	0.35
Final Sat.:	1366	1615	0	0	1275	154	0	0	0	126	2488	553

Capacity Analysis Module:

Vol/Sat:	0.05	0.24	0.00	0.00	0.42	0.42	0.00	0.00	0.00	0.56	0.56	0.56
Crit Moves:	****											
Green/Cycle:	0.40	0.40	0.00	0.00	0.40	0.40	0.00	0.00	0.00	0.53	0.53	0.53
Volume/Cap:	0.11	0.60	0.00	0.00	1.06	1.06	0.00	0.00	0.00	1.06	1.06	1.06
Delay/Veh:	23.0	32.5	0.0	0.0	89.0	89.0	0.0	0.0	0.0	66.3	66.3	66.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	23.0	32.5	0.0	0.0	89.0	89.0	0.0	0.0	0.0	66.3	66.3	66.3
DesignQueue:	3	16	0	0	24	3	0	0	0	3	50	11

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Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
OPTIMIZED SIGNAL TIMING

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #23 Frontage Rd./ W. Grand Ave.  
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Cycle (sec): 175 Critical Vol./Cap. (X): 1.461  
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 215.7  
Optimal Cycle: OPTIMIZED Level Of Service: F

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	7	0	0	7	0	0
Lanes:	1	0	1	0	1	0	1	0	1	1	0	1

Volume Module:

Base Vol:	28	157	172	84	62	5	381	309	61	95	914	298
Growth Adj:	1.00	1.00	1.00	1.87	1.87	1.87	2.23	2.23	2.23	1.37	1.37	1.37
Initial Bse:	28	157	172	157	116	9	850	689	136	130	1252	408
Added Vol:	0	0	0	0	0	0	0	4	0	0	3	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	28	157	172	157	116	9	850	693	136	130	1255	408
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	29	165	181	165	122	10	894	730	143	137	1321	430
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	165	181	165	122	10	894	730	143	137	1321	430
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	29	165	181	165	122	10	894	730	143	137	1321	430

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.83	0.83	0.93	0.93	0.81	0.90	0.88	0.88	0.90	0.87	0.87
Lanes:	1.00	1.00	1.00	0.58	0.42	1.00	1.00	1.67	0.33	1.00	1.51	0.49
Final Sat.:	1718	1584	1584	1012	747	1537	1718	2801	550	1718	2497	812

Capacity Analysis Module:

Vol/Sat:	0.02	0.10	0.11	0.16	0.16	0.01	0.52	0.26	0.26	0.08	0.53	0.53
Crit Moves:	****											
Green/Cycle:	0.08	0.08	0.08	0.11	0.11	0.11	0.36	0.55	0.55	0.17	0.36	0.36
Volume/Cap:	0.22	1.33	1.46	1.46	1.46	0.06	1.46	0.47	0.47	0.47	1.46	1.46
Delay/Veh:	76.5	255	309.8	310.9	311	69.6	272.6	24.1	24.1	67.0	268	267.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	76.5	255	309.8	310.9	311	69.6	272.6	24.1	24.1	67.0	268	267.8
DesignQueue:	3	15	17	15	11	1	64	34	7	11	93	30

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Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
OPTIMIZED SIGNAL TIMING

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #24 Mandela Pkwy/ W: Grand Ave.  
\*\*\*\*\*

Cycle (sec):	110	Critical Vol./Cap. (X):	0.862
Loss Time (sec):	12 (Y+R = 8 sec)	Average Delay (sec/veh):	45.8
Optimal Cycle:	98	Level of Service:	D

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R

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Control:	Permitted	Permitted	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
Lanes:	0 1 0 1 0	0 1 0 1 0	1 0 1 1 0	1 0 1 1 0

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Volume Module:

Base Vol:	107 144	127 35 132 105	127 332 57	220 604 25
Growth Adj:	1.18 1.18 1.18	1.83 1.83 1.83	2.36 2.36 2.36	1.45 1.45 1.45
Initial Bse:	126 170 150	64 242 192	300 784 135	319 876 36
Added Vol:	0 0 0	0 0 0	0 4 0	0 3 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	126 170 150	64 242 192	300 788 135	319 879 36
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.90 0.90 0.90	0.90 0.90 0.90	0.90 0.90 0.90	0.90 0.90 0.90
PHF Volume:	140 189 167	71 268 214	333 875 149	354 976 40
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	140 189 167	71 268 214	333 875 149	354 976 40
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	140 189 167	71 268 213	333 875 149	354 976 40

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Saturation Flow Module:

Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjustment:	0.51 0.51 0.51	0.62 0.62 0.62	0.90 0.88 0.88	0.90 0.90 0.90
Lanes:	0.57 0.76 0.67	0.26 0.97 0.77	1.00 1.71 0.29	1.00 1.92 0.08
Final Sat.:	546 735 648	302 1139 906	1718 2871 490	1718 3281 135

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Capacity Analysis Module:

Vol/Sat:	0.26 0.26 0.26	0.24 0.24 0.24	0.19 0.30 0.30	0.21 0.30 0.30
Crit Moves:	***	***	***	***
Green/Cycle:	0.30 0.30 0.30	0.30 0.30 0.30	0.23 0.35 0.35	0.24 0.36 0.36
Volume/Cap:	0.86 0.86 0.86	0.79 0.79 0.79	0.83 0.86 0.86	0.86 0.83 0.83
Delay/Veh:	52.1 52.1 52.1	44.3 44.3 44.3	57.7 41.4 41.4	60.6 38.7 38.7
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	52.1 52.1 52.1	44.3 44.3 44.3	57.7 41.4 41.4	60.6 38.7 38.7
DesignQueue:	6 8 7	3 12 10	16 37 6	17 41 2

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Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
OPTIMIZED SIGNAL TIMING

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #27 Harrison St./ Grand Ave.  
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Cycle (sec):	110	Critical Vol./Cap. (X):	1.050
Loss Time (sec):	12 (Y+R = 12 sec)	Average Delay (sec/veh):	52.1
Optimal Cycle:	180	Level of Service:	D

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R

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Control:	Permitted	Permitted	Protected	Protected
Rights:	Ovl	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
Lanes:	1 0 2 0 1	0 1 1 1 0	2 0 1 1 0	2 0 1 1 0

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Volume Module:

Base Vol:	8 1618 738	0 614 73	164 522 172	311 512 105
Growth Adj:	1.14 1.14 1.14	1.72 1.72 1.72	1.32 1.32 1.32	1.28 1.28 1.28
Initial Bse:	9 1845 841	0 1056 126	216 689 227	398 655 134
Added Vol:	0 0 0	0 0 1	1 3 0	0 4 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	9 1845 841	0 1056 127	217 692 227	398 659 134
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.95 0.95 0.95	0.95 0.95 0.95	0.95 0.95 0.95	0.95 0.95 0.95
PHF Volume:	10 1942 886	0 1112 133	229 728 239	419 694 141
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	10 1942 886	0 1112 133	229 728 239	419 694 141
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Vol.:	10 1942 886	0 1112 133	229 728 239	419 694 141

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Saturation Flow Module:

Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjustment:	0.17 0.95 0.85	0.91 0.90 0.90	0.92 0.91 0.91	0.92 0.93 0.93
Lanes:	1.00 2.00 1.00	0.00 2.68 0.32	2.00 1.51 0.49	2.00 1.66 0.34
Final Sat.:	327 3610 1615	0 4558 546	3502 2618 859	3502 2924 596

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Capacity Analysis Module:

Vol/Sat:	0.03 0.54 0.55	0.00 0.24 0.24	0.07 0.28 0.28	0.12 0.24 0.24
Crit Moves:	***	***	***	***
Green/Cycle:	0.51 0.51 0.63	0.00 0.51 0.51	0.08 0.26 0.26	0.11 0.30 0.30
Volume/Cap:	0.06 1.05 0.88	0.00 0.48 0.48	0.80 1.05 1.05	1.05 0.80 0.80
Delay/Veh:	13.6 62.4 25.8	0.0 17.5 17.5	64.2 84.2 84.2	107.6 40.1 40.1
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	13.6 62.4 25.8	0.0 17.5 17.5	64.2 84.2 84.2	107.6 40.1 40.1
DesignQueue:	0 67 23	0 35 4	13 35 12	23 32 6

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Uptown Project Traffic Impact Analysis  
 Year 2025 No Project - PM Peak Hour  
 OPTIMIZED SIGNAL TIMING

Level Of Service Computation Report  
 1997 HCM Operations Method (Future Volume Alternative)

Intersection #36 17th St / Castro St/I-980 Off-Ramp

Cycle (sec): 85 Critical Vol./Cap. (X): 0.925  
 Loss Time (sec): 12 (Y+R = 6 sec) Average Delay (sec/veh): 40.2  
 Optimal Cycle: 111 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	1	1	0	0	0	0	0	0	0	2

Volume Module:

Base Vol:	0	645	31	0	0	0	216	707	0	0	1371	68
Growth Adj:	1.81	1.81	1.81	1.00	1.00	1.00	1.00	1.00	1.00	1.13	1.13	1.13
Initial Bse:	0	1167	56	0	0	0	216	707	0	0	1549	77
Added Vol:	0	0	4	0	0	0	0	1	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1167	60	0	0	0	216	708	0	0	1549	77
User Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	1167	60	0	0	0	216	708	0	0	1549	77
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1167	60	0	0	0	216	708	0	0	1549	77
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	1167	60	0	0	0	216	708	0	0	1549	77

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.94	0.94	1.00	1.00	1.00	0.95	0.91	1.00	1.00	0.90	0.90
Lanes:	0.00	1.90	0.10	0.00	0.00	0.00	1.00	3.00	0.00	0.00	2.86	0.14
Final Sat.:	0	3409	176	0	0	0	1805	5187	0	0	4907	243

Capacity Analysis Module:

Vol/Sat:	0.00	0.34	0.34	0.00	0.00	0.00	0.12	0.14	0.00	0.00	0.32	0.32
Crit Moves:	****						****			****		
Green/Cycle:	0.00	0.37	0.37	0.00	0.00	0.00	0.15	0.15	0.00	0.00	0.34	0.34
Volume/Cap:	0.00	0.93	0.93	0.00	0.00	0.00	0.81	0.93	0.00	0.00	0.93	0.93
Delay/Veh:	0.0	36.8	36.8	0.0	0.0	0.0	52.0	52.8	0.0	0.0	35.8	35.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	36.8	36.8	0.0	0.0	0.0	52.0	52.8	0.0	0.0	35.8	35.8
DesignQueue:	0	38	2	0	0	0	9	29	0	0	52	3

LEVEL OF SERVICE CALCULATION WORKSHEETS  
YEAR 2025 PLUS PROJECT CONDITIONS  
WITH OPTIMIZED SIGNAL TIMING

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - AM Peak Hour  
OPTIMIZED SIGNAL TIMING

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #11 Telegraph Ave./ W Grand Ave.  
\*\*\*\*\*

Cycle (sec): 60 Critical Vol./Cap. (X): 1.288  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 55.1  
Optimal Cycle: 180 Level Of Service: E

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	77	225	21	64	339	70	107	779	300	99	515	41
Growth Adj:	1.84	1.84	1.84	1.21	1.21	1.21	1.26	1.26	1.26	1.75	1.75	1.75
Initial Bse:	142	414	39	77	410	85	135	982	378	173	901	72
Added Vol:	49	20	124	0	5	0	1	9	26	31	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	191	434	163	77	415	85	136	991	404	204	901	72
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	201	457	171	82	437	89	143	1043	425	215	949	76
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	201	457	171	82	437	89	143	1043	425	215	949	76
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	201	457	171	82	437	89	143	1043	425	215	949	76

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	0.78	0.91	0.91	0.65	0.93	0.93	0.24	0.91	0.91	0.13	0.94	0.94
Lanes:	1.00	1.45	0.55	1.00	1.66	0.34	1.00	1.42	0.58	1.00	1.85	0.15
Final Sat.:	1482	2518	944	1243	2923	596	454	2454	1001	241	3307	263

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	0.14	0.18	0.18	0.07	0.15	0.15	0.31	0.42	0.42	0.89	0.29	0.29
Green/Cycle:	0.18	0.18	0.18	0.10	0.10	0.10	0.69	0.69	0.69	0.69	0.69	0.69
Volume/Cap:	0.76	1.02	1.02	0.64	1.47	1.47	0.46	0.62	0.62	1.29	0.42	0.42
Delay/Veh:	36.5	66.2	66.2	36.7	252	251.9	5.3	5.5	5.5	178.6	4.2	4.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	36.5	66.2	66.2	36.7	252	251.9	5.3	5.5	5.5	178.6	4.2	4.2
DesignQueue:	6	13	5	2	14	3	2	12	5	2	11	1

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - AM Peak Hour  
OPTIMIZED SIGNAL TIMING

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #12 Telegraph Ave./ 20th St.  
\*\*\*\*\*

Cycle (sec): 45 Critical Vol./Cap. (X): 0.746  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 12.5  
Optimal Cycle: 45 Level Of Service: B

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	25	313	26	197	419	73	15	66	34	60	148	77
Growth Adj:	1.63	1.63	1.63	1.36	1.36	1.36	1.11	1.11	1.11	1.00	1.00	1.00
Initial Bse:	41	510	42	268	570	99	17	73	38	60	148	77
Added Vol:	10	69	16	0	35	20	44	28	43	3	7	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	51	579	58	268	605	119	61	101	81	63	155	78
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.94	0.94	0.94	0.90	0.90	0.90	0.93	0.93	0.93
PHF Volume:	55	623	63	285	643	127	67	113	90	68	167	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	623	63	285	643	127	67	113	90	68	167	84
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	55	623	63	285	643	127	67	113	90	68	167	84

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	0.37	0.84	0.84	0.30	0.86	0.86	0.66	0.66	0.66	0.70	0.70	0.70
Lanes:	1.00	0.91	0.09	1.00	1.67	0.33	0.50	0.83	0.67	0.42	1.05	0.53
Final Sat.:	694	1447	146	578	2719	536	631	1054	840	564	1387	698

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	0.08	0.43	0.43	0.49	0.24	0.24	0.11	0.11	0.11	0.12	0.12	0.12
Green/Cycle:	0.66	0.66	0.66	0.66	0.66	0.66	0.16	0.16	0.16	0.16	0.16	0.16
Volume/Cap:	0.12	0.65	0.65	0.75	0.36	0.36	0.66	0.66	0.66	0.75	0.75	0.75
Delay/Veh:	3.3	7.7	7.7	17.6	3.8	3.8	26.0	26.0	26.0	29.3	29.3	29.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	3.3	7.7	7.7	17.6	3.8	3.8	26.0	26.0	26.0	29.3	29.3	29.3
DesignQueue:	0	6	1	3	6	1	1	2	2	1	4	2

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - AM Peak Hour  
OPTIMIZED SIGNAL TIMING

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #14 Telegraph Ave./ 19th St.

Cycle (sec): 45 Critical Vol./Cap. (X): 1.049  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 44.6  
Optimal Cycle: 125 Level Of Service: D

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control (Permitted, Include), Rights, Min. Green, and Lanes.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol across four approaches.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. values for each approach.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue values.

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Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - AM Peak Hour  
OPTIMIZED SIGNAL TIMING

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #23 Frontage Rd./ W. Grand Ave.

Cycle (sec): 175 Critical Vol./Cap. (X): 1.203  
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 140.1  
Optimal Cycle: OPTIMIZED Level Of Service: F

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control (Split Phase, Protected, Include), Rights, Min. Green, and Lanes.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol across four approaches.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. values for each approach.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue values.

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Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak  
OPTIMIZED SIGNAL TIMING

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #3 San Pablo Ave. / 27th  
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Cycle (sec): 90 Critical Vol./Cap. (X): 1.506  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 43.4  
Optimal Cycle: 180 Level Of Service: D

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	1	0	1	0	0	1	1	0	1

Volume Module:

Base Vol:	8	960	60	174	638	7	21	40	19	53	87	90
Growth Adj:	1.42	1.42	1.42	1.50	1.50	1.50	1.46	1.46	1.46	1.41	1.41	1.41
Initial Bse:	11	1363	85	261	957	11	31	58	28	75	123	127
Added Vol:	4	29	0	0	54	0	0	0	7	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	15	1392	85	261	1011	11	31	58	35	75	123	127
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	17	1547	95	290	1123	12	34	65	39	83	136	141
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	17	1547	95	290	1123	12	34	65	39	83	136	141
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	17	1547	95	290	1123	12	34	65	39	83	136	141

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.88	0.88	0.88	0.12	0.95	0.95	0.51	0.51	0.51	0.96	1.00	0.85
Lanes:	0.02	1.87	0.11	1.00	1.98	0.02	0.25	0.47	0.28	1.00	1.00	1.00
Final Sat.:	35	3136	192	236	3569	37	241	459	273	1824	1900	1615

Capacity Analysis Module:

Vol/Sat:	0.49	0.49	0.49	1.23	0.31	0.31	0.14	0.14	0.14	0.05	0.07	0.09
Crit Moves:	****			****			****			****		
Green/Cycle:	0.82	0.82	0.82	0.82	0.82	0.82	0.09	0.09	0.09	0.09	0.09	0.09
Volume/Cap:	0.60	0.60	0.60	1.51	0.39	0.39	1.51	1.51	1.51	0.48	0.76	0.93
Delay/Veh:	4.0	4.0	4.0	261.1	2.6	2.6	316.9	317	316.9	48.2	66.0	97.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	4.0	4.0	4.0	261.1	2.6	2.6	316.9	317	316.9	48.2	66.0	97.0
DesignQueue:	0	16	1	3	11	0	2	3	2	4	6	7

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Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak  
OPTIMIZED SIGNAL TIMING

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #5 San Pablo Ave. / Grand Ave  
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Cycle (sec): 95 Critical Vol./Cap. (X): 1.182  
Loss Time (sec): 12 (Y+R = 8 sec) Average Delay (sec/veh): 78.5  
Optimal Cycle: 180 Level Of Service: E

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Ovl			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	1	0	1	1	0	2	0	1	0

Volume Module:

Base Vol:	112	489	14	122	373	7	31	663	33	31	677	101
Growth Adj:	1.53	1.53	1.53	1.24	1.24	1.24	1.76	1.76	1.76	1.82	1.82	1.82
Initial Bse:	171	748	21	151	463	9	55	1167	58	56	1232	184
Added Vol:	44	38	29	21	58	0	0	33	68	24	11	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	215	786	50	172	521	9	55	1200	126	80	1243	189
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	239	874	56	191	578	10	61	1333	140	89	1381	210
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	239	874	56	191	578	10	61	1333	140	89	1381	210
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	239	874	56	191	578	10	61	1333	140	89	1381	210

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.87	0.87	0.95	0.88	0.88	0.08	0.95	0.72	0.60	0.60	0.72
Lanes:	1.00	1.88	0.12	1.00	1.97	0.03	1.00	2.00	1.00	0.12	1.88	1.00
Final Sat.:	1805	3110	199	1805	3278	55	152	3610	1373	138	2140	1373

Capacity Analysis Module:

Vol/Sat:	0.13	0.28	0.28	0.11	0.18	0.18	0.40	0.37	0.10	0.65	0.65	0.15
Crit Moves:	****			****			****			****		
Green/Cycle:	0.14	0.24	0.24	0.09	0.19	0.19	0.55	0.55	0.69	0.55	0.55	0.64
Volume/Cap:	0.94	1.18	1.18	1.18	0.94	0.94	0.73	0.68	0.15	1.18	1.18	0.24
Delay/Veh:	84.2	131	130.9	171.2	62.7	62.7	59.5	17.4	5.5	111.9	112	8.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	84.2	131	130.9	171.2	62.7	62.7	59.5	17.4	5.5	111.9	112	8.1
DesignQueue:	11	38	2	9	26	0	1	35	2	2	37	4

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Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak  
OPTIMIZED SIGNAL TIMING

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #6 San Pablo Ave./ 20th St.

Cycle (sec): 120 Critical Vol./Cap. (X): 0.887  
Loss Time (sec): 12 (Y+R = 25 sec) Average Delay (sec/veh): 44.9  
Optimal Cycle: 113 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	40	0	0	40	0
Lanes:	1	0	1	0	2	0	0	1	0	0	1	0

Volume Module:

Base Vol:	40	376	87	95	328	195	194	46	20	15	32	77
Growth Adj:	1.30	1.30	1.30	1.12	1.12	1.12	1.00	1.00	1.00	1.31	1.31	1.31
Initial Bse:	52	489	113	106	367	218	194	46	20	20	42	101
Added Vol:	0	65	58	72	40	0	0	0	0	30	0	46
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	52	554	171	178	407	218	194	46	20	50	42	147
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.94	0.94	0.00	0.91	0.91	0.91	0.92	0.92	0.92
PHF Volume:	58	615	190	190	433	0	213	51	22	54	46	160
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	58	615	190	190	433	0	213	51	22	54	46	160
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	58	615	190	190	433	0	213	51	22	54	46	160

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.50	0.82	0.82	0.14	0.95	1.00	0.56	0.56	0.56	0.62	0.62	0.62
Lanes:	1.00	0.76	0.24	1.00	2.00	1.00	1.00	0.70	0.30	0.54	0.46	1.00
Final Sat.:	950	1191	368	266	3610	1900	1062	740	322	640	540	1179

Capacity Analysis Module:

Vol/Sat:	0.06	0.52	0.52	0.71	0.12	0.00	0.20	0.07	0.07	0.08	0.08	0.14
Crit Moves:	****											
Green/Cycle:	0.57	0.57	0.57	0.57	0.57	0.00	0.33	0.33	0.33	0.33	0.33	0.33
Volume/Cap:	0.11	0.91	0.91	1.26	0.21	0.00	0.60	0.20	0.20	0.25	0.25	0.41
Delay/Veh:	12.4	38.6	38.6	185.1	13.0	0.0	38.9	29.0	29.0	29.7	29.7	32.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.4	38.6	38.6	185.1	13.0	0.0	38.9	29.0	29.0	29.7	29.7	32.8
DesignQueue:	2	20	6	6	13	0	10	2	1	2	2	7

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak  
OPTIMIZED SIGNAL TIMING

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #11 Telegraph Ave./ W. Grand Ave.

Cycle (sec): 65 Critical Vol./Cap. (X): 1.654  
Loss Time (sec): 8 (Y+R = 8 sec) Average Delay (sec/veh): 62.8  
Optimal Cycle: OPTIMIZED Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	0	1	1	0	1	1	1	0	1

Volume Module:

Base Vol:	299	474	110	99	320	107	139	563	110	76	673	90
Growth Adj:	1.96	1.96	1.96	1.06	1.06	1.06	1.35	1.35	1.35	1.19	1.19	1.19
Initial Bse:	586	929	216	105	339	113	188	760	149	90	801	107
Added Vol:	32	11	68	0	22	0	1	5	102	126	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	618	940	284	105	361	113	189	765	251	216	801	107
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	651	990	299	110	380	119	199	805	264	228	843	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	651	990	299	110	380	119	199	805	264	228	843	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	651	990	299	110	380	119	199	805	264	228	843	113

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.61	0.85	0.85	0.27	0.85	0.85	0.20	0.85	0.85	0.15	0.86	0.86
Lanes:	1.00	1.54	0.46	1.00	1.52	0.48	1.00	1.51	0.49	1.00	1.76	0.24
Final Sat.:	1167	2476	747	507	2450	769	376	2422	793	293	2892	387

Capacity Analysis Module:

Vol/Sat:	0.56	0.40	0.40	0.22	0.16	0.16	0.53	0.33	0.33	0.78	0.29	0.29
Crit Moves:	****											
Green/Cycle:	0.43	0.43	0.43	0.23	0.23	0.23	0.45	0.45	0.45	0.45	0.45	0.45
Volume/Cap:	1.30	0.93	0.93	0.95	0.67	0.67	1.18	0.74	0.74	1.74	0.65	0.65
Delay/Veh:	162.6	28.7	28.7	90.5	25.2	25.2	144.9	17.1	17.1	382.4	15.1	15.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	162.6	28.7	28.7	90.5	25.2	25.2	144.9	17.1	17.1	382.4	15.1	15.1
DesignQueue:	21	22	7	3	11	3	4	17	6	5	18	2

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak  
OPTIMIZED SIGNAL TIMING

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #12 Telegraph Ave. / 20th St.  
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Cycle (sec): 70 Critical Vol./Cap. (X): 1.194  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 78.1  
Optimal Cycle: OPTIMIZED Level Of Service: E

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	0	1	1	0	1	0	0	1	0

Volume Module:

Base Vol:	18	354	43	90	393	25	90	203	37	31	107	115
Growth Adj:	2.91	2.91	2.91	1.31	1.31	1.31	1.16	1.16	1.16	1.01	1.01	1.01
Initial Bse:	52	1030	125	118	515	33	104	235	43	31	108	116
Added Vol:	42	35	8	1	160	86	27	16	29	17	30	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	94	1065	133	119	675	119	131	251	72	48	138	117
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.93	0.93	0.93	0.91	0.91	0.91	0.90	0.90	0.90
PHF Volume:	105	1183	148	128	726	128	144	276	79	54	153	130
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	105	1183	148	128	726	128	144	276	79	54	153	130
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	105	1183	148	128	726	128	144	276	79	54	153	130

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.32	0.84	0.84	0.08	0.86	0.86	0.60	0.60	0.60	0.53	0.53	0.53
Lanes:	1.00	0.89	0.11	1.00	1.70	0.30	0.58	1.10	0.32	0.32	0.91	0.77
Final Sat.:	616	1411	176	154	2777	489	659	1261	361	322	920	781

Capacity Analysis Module:

Vol/Sat:	0.17	0.84	0.84	0.83	0.26	0.26	0.22	0.22	0.22	0.17	0.17	0.17
Crit Moves:	****											
Green/Cycle:	0.70	0.70	0.70	0.70	0.70	0.70	0.18	0.18	0.18	0.18	0.18	0.18
Volume/Cap:	0.24	1.19	1.19	1.18	0.37	0.37	1.19	1.19	1.19	0.91	0.91	0.91
Delay/Veh:	5.1	107	106.8	154.3	4.7	4.7	137.2	137	137.2	56.6	56.6	56.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	5.1	107	106.8	154.3	4.7	4.7	137.2	137	137.2	56.6	56.6	56.6
DesignQueue:	1	17	2	2	9	2	5	9	3	2	5	4

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Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak  
OPTIMIZED SIGNAL TIMING

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

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Intersection #13 Telegraph / Williams St  
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Cycle (sec): 80 Critical Vol./Cap. (X): 0.936  
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 13.7  
Optimal Cycle: 109 Level Of Service: B

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	0	0	1	0	0	1	0	0	0

Volume Module:

Base Vol:	14	440	0	0	400	28	1	0	1	0	0	0
Growth Adj:	2.91	2.91	2.91	1.32	1.32	1.32	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	41	1280	0	0	528	37	1	0	1	0	0	0
Added Vol:	41	67	0	0	73	134	18	0	47	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	82	1347	0	0	601	171	19	0	48	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	91	1497	0	0	668	190	21	0	53	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	1497	0	0	668	190	21	0	53	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	91	1497	0	0	668	190	21	0	53	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.45	1.00	1.00	1.00	0.87	0.87	0.72	1.00	0.72	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.78	0.22	0.28	0.00	0.72	0.00	0.00	0.00
Final Sat.:	863	1900	0	0	1287	366	389	0	982	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.11	0.79	0.00	0.00	0.52	0.52	0.05	0.00	0.05	0.00	0.00	0.00
Crit Moves:	****											
Green/Cycle:	0.84	0.84	0.00	0.00	0.84	0.84	0.06	0.00	0.06	0.00	0.00	0.00
Volume/Cap:	0.13	0.94	0.00	0.00	0.62	0.62	0.94	0.00	0.94	0.00	0.00	0.00
Delay/Veh:	1.2	15.5	0.0	0.0	2.9	2.9	116.7	0.0	116.7	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	1.2	15.5	0.0	0.0	2.9	2.9	116.7	0.0	116.7	0.0	0.0	0.0
DesignQueue:	1	13	0	0	5	2	1	0	2	0	0	0

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Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak  
OPTIMIZED SIGNAL TIMING

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #14 Telegraph Ave./ 19th St.

Cycle (sec): 120 Critical Vol./Cap. (X): 1.185  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 107.5  
Optimal Cycle: OPTIMIZED Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	17	0	0	17	0	0	0	0	0	22	0
Lanes:	1	0	1	0	0	1	0	0	0	0	1	0

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	57	355	0	0	377	46	0	0	0	28	552	122
Growth Adj:	1.06	1.06	1.06	1.32	1.32	1.32	1.00	1.00	1.00	2.38	2.38	2.38
Initial Bse:	60	376	0	0	498	61	0	0	0	67	1314	290
Added Vol:	23	62	0	0	50	69	0	0	0	0	28	47
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	83	438	0	0	548	130	0	0	0	67	1342	337
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.93	0.93	0.93	1.00	1.00	1.00	0.94	0.94	0.94
PHF Volume:	86	452	0	0	589	139	0	0	0	71	1427	359
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	86	452	0	0	589	139	0	0	0	71	1427	359
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	86	452	0	0	589	139	0	0	0	71	1427	359

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	0.70	0.85	1.00	1.00	0.74	0.74	1.00	1.00	1.00	0.83	0.83	0.83
Lanes:	1.00	1.00	0.00	0.00	0.81	0.19	0.00	0.00	0.00	0.07	1.54	0.39
Final Sat.:	1324	1615	0	0	1141	270	0	0	0	120	2420	608

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	0.06 0.28 0.00			0.00 0.52 0.52			0.00 0.00 0.00			0.59 0.59 0.59		
Green/Cycle:	0.44	0.44	0.00	0.00	0.44	0.44	0.00	0.00	0.00	0.50	0.50	0.50
Volume/Cap:	0.15	0.64	0.00	0.00	1.18	1.18	0.00	0.00	0.00	1.18	1.18	1.18
Delay/Veh:	21.0	31.0	0.0	0.0	133	132.8	0.0	0.0	0.0	120.1	120	120.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	21.0	31.0	0.0	0.0	133	132.8	0.0	0.0	0.0	120.1	120	120.1
DesignQueue:	3	18	0	0	25	6	0	0	0	3	55	14

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak  
OPTIMIZED SIGNAL TIMING

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #23 Frontage Rd./ W. Grand Ave.

Cycle (sec): 175 Critical Vol./Cap. (X): 1.478  
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 217.5  
Optimal Cycle: OPTIMIZED Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	7	0	0	7	0	0
Lanes:	1	0	1	1	0	0	1	0	1	1	0	1

Volume Module:

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	28	157	172	84	62	5	381	309	61	95	914	298
Growth Adj:	1.00	1.00	1.00	1.87	1.87	1.87	2.23	2.23	2.23	1.37	1.37	1.37
Initial Bse:	28	157	172	157	116	9	850	689	136	130	1252	408
Added Vol:	0	0	0	0	0	0	0	101	0	0	55	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	28	157	172	157	116	9	850	790	136	130	1307	408
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	29	165	181	165	122	10	894	832	143	137	1376	430
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	165	181	165	122	10	894	832	143	137	1376	430
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	29	165	181	165	122	10	894	832	143	137	1376	430

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	0.90	0.83	0.83	0.93	0.93	0.81	0.90	0.88	0.88	0.90	0.87	0.87
Lanes:	1.00	1.00	1.00	0.58	0.42	1.00	1.00	1.71	0.29	1.00	1.52	0.48
Final Sat.:	1718	1584	1584	1012	747	1537	1718	2867	494	1718	2525	788

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	0.02 0.10 0.11			0.16 0.16 0.01			0.52 0.29 0.29			0.08 0.55 0.55		
Green/Cycle:	0.08	0.08	0.08	0.11	0.11	0.11	0.11	0.35	0.57	0.57	0.16	0.37
Volume/Cap:	0.22	1.35	1.48	1.48	1.48	0.06	1.48	0.51	0.51	0.51	0.51	1.48
Delay/Veh:	76.6	262	317.6	318.7	319	69.8	280.8	23.5	23.5	69.5	275	275.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	76.6	262	317.6	318.7	319	69.8	280.8	23.5	23.5	69.5	275	275.0
DesignQueue:	3	15	17	15	11	1	64	38	6	11	97	30

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak
OPTIMIZED SIGNAL TIMING

Level Of Service Computation Report

1997 HCM Operations Method (Future Volume Alternative)

Intersection #24 Mandela Pkwy/ W. Grand Ave.

Cycle (sec): 110 Critical Vol./Cap. (X): 0.899
Loss Time (sec): 12 (Y+R = 8 sec) Average Delay (sec/veh): 47.8
Optimal Cycle: 115 Level Of Service: D

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 11 columns representing different traffic metrics and 11 rows representing different volume categories like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module:

Table with 11 columns for Sat/Lane, Adjustment, Lanes, and Final Sat., and 11 rows for different saturation flow metrics.

Capacity Analysis Module:

Table with 11 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue, and 11 rows for capacity analysis metrics.

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - PM Peak
OPTIMIZED SIGNAL TIMING

Level Of Service Computation Report

1997 HCM Operations Method (Future Volume Alternative)

Intersection #27 Harrison St./ Grand Ave.

Cycle (sec): 110 Critical Vol./Cap. (X): 1.067
Loss Time (sec): 12 (Y+R = 12 sec) Average Delay (sec/veh): 56.1
Optimal Cycle: OPTIMIZED Level Of Service: E

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 11 columns representing different traffic metrics and 11 rows representing different volume categories like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module:

Table with 11 columns for Sat/Lane, Adjustment, Lanes, and Final Sat., and 11 rows for different saturation flow metrics.

Capacity Analysis Module:

Table with 11 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue, and 11 rows for capacity analysis metrics.

Uptown Project Traffic Impact Analysis  
 Year 2025 plus Project - PM Peak  
 OPTIMIZED SIGNAL TIMING

Level Of Service Computation Report  
 1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #36 17th St / Castro St/I-980 Off-Ramp  
 \*\*\*\*\*

Cycle (sec): 85 Critical Vol./Cap. (X): 0.962  
 Loss Time (sec): 12 (Y+R = 6 sec) Average Delay (sec/veh): 45.9  
 Optimal Cycle: 131 Level Of Service: D  
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	1	1	0	0	0	1	0	3	0	0

Volume Module:

Base Vol:	0	645	31	0	0	0	216	707	0	0	1371	68
Growth Adj:	1.81	1.81	1.81	1.00	1.00	1.00	1.00	1.00	1.00	1.13	1.13	1.13
Initial Bse:	0	1167	56	0	0	0	216	707	0	0	1549	77
Added Vol:	0	0	87	0	0	0	0	29	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1167	143	0	0	0	216	736	0	0	1549	77
User Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	1167	143	0	0	0	216	736	0	0	1549	77
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1167	143	0	0	0	216	736	0	0	1549	77
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	1167	143	0	0	0	216	736	0	0	1549	77

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.93	0.93	1.00	1.00	1.00	0.95	0.91	1.00	1.00	0.90	0.90
Lanes:	0.00	1.78	0.22	0.00	0.00	0.00	1.00	3.00	0.00	0.00	2.86	0.14
Final Sat.:	0	3164	388	0	0	0	1805	5187	0	0	4907	243

Capacity Analysis Module:

Vol/Sat:	0.00	0.37	0.37	0.00	0.00	0.00	0.12	0.14	0.00	0.00	0.32	0.32
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.38	0.38	0.00	0.00	0.00	0.15	0.15	0.00	0.00	0.33	0.33
Volume/Cap:	0.00	0.96	0.96	0.00	0.00	0.00	0.81	0.96	0.00	0.00	0.96	0.96
Delay/Veh:	0.0	41.8	41.8	0.0	0.0	0.0	52.1	59.6	0.0	0.0	42.1	42.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	41.8	41.8	0.0	0.0	0.0	52.1	59.6	0.0	0.0	42.1	42.1
DesignQueue:	0	37	5	0	0	0	9	31	0	0	53	3

LEVEL OF SERVICE CALCULATION WORKSHEETS  
YEAR 2010 NO PROJECT CONDITIONS  
WITH MITIGATIONS

Uptown Project Traffic Impact Analysis  
2010 No Project - PM Peak Hour  
MITIGATED

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #23 Frontage Rd./ W. Grand Ave.  
\*\*\*\*\*

Cycle (sec): 105 Critical Vol./Cap. (X): 0.842  
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 38.2  
Optimal Cycle: 99 Level Of Service: D

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	7	0	0	7	0	0
Lanes:	1	0	1	1	0	1	2	0	1	1	0	2

Volume Module:

Base Vol:	28	157	172	84	62	5	381	309	61	95	914	298
Growth Adj:	1.00	1.00	1.00	1.13	1.13	1.13	1.41	1.41	1.41	1.18	1.18	1.18
Initial Bse:	28	157	172	95	70	6	537	436	86	112	1079	352
Added Vol:	0	0	0	0	0	0	0	4	0	0	3	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	28	157	172	95	70	6	537	440	86	112	1082	352
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	29	165	181	100	74	6	565	463	91	118	1138	370
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	165	181	100	74	6	565	463	91	118	1138	370
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	29	165	181	100	74	6	565	463	91	118	1138	370

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.83	0.83	0.93	0.93	0.81	0.88	0.88	0.88	0.90	0.90	0.81
Lanes:	1.00	1.00	1.00	0.58	0.42	1.00	2.00	1.67	0.33	1.00	2.00	1.00
Final Sat.:	1718	1584	1584	1012	747	1537	3334	2803	548	1718	3437	1537

Capacity Analysis Module:

Vol/Sat:	0.02	0.10	0.11	0.10	0.10	0.00	0.17	0.17	0.17	0.07	0.33	0.24
Crit Moves:	*****											
Green/Cycle:	0.14	0.14	0.14	0.12	0.12	0.12	0.20	0.42	0.42	0.17	0.39	0.39
Volume/Cap:	0.13	0.77	0.84	0.84	0.84	0.03	0.84	0.39	0.39	0.39	0.84	0.61
Delay/Veh:	40.2	51.7	58.8	71.0	71.0	41.1	49.8	21.3	21.3	39.3	33.9	27.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.2	51.7	58.8	71.0	71.0	41.1	49.8	21.3	21.3	39.3	33.9	27.3
DesignQueue:	1	9	9	5	4	0	27	16	3	6	44	14

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Uptown Project Traffic Impact Analysis  
Year 2010 No Project - AM Peak Hour  
MITIGATED

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #23 Frontage Rd./ W. Grand Ave.  
\*\*\*\*\*

Cycle (sec): 60 Critical Vol./Cap. (X): 0.679  
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 27.2  
Optimal Cycle: OPTIMIZED Level Of Service: C

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	7	0	0	4	0	0
Lanes:	1	0	1	1	0	1	2	0	1	1	0	2

Volume Module:

Base Vol:	51	127	138	156	122	49	56	308	48	104	532	244
Growth Adj:	1.02	1.02	1.02	1.20	1.20	1.20	1.02	1.02	1.02	1.14	1.14	1.14
Initial Bse:	52	130	141	187	146	59	57	314	49	119	606	278
Added Vol:	0	0	0	0	0	0	0	2	0	0	4	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	52	130	141	187	146	59	57	316	49	119	610	278
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	55	136	148	197	154	62	60	333	52	125	643	293
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	136	148	197	154	62	60	333	52	125	643	293
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	55	136	148	197	154	62	60	333	52	125	643	293

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.83	0.83	0.93	0.93	0.81	0.88	0.89	0.89	0.90	0.90	0.81
Lanes:	1.00	1.00	1.00	0.56	0.44	1.00	2.00	1.73	0.27	1.00	2.00	1.00
Final Sat.:	1718	1584	1584	988	772	1537	3334	2916	452	1718	3437	1537

Capacity Analysis Module:

Vol/Sat:	0.03	0.09	0.09	0.20	0.20	0.04	0.02	0.11	0.11	0.07	0.19	0.19
Crit Moves:	*****											
Green/Cycle:	0.12	0.12	0.12	0.26	0.26	0.26	0.12	0.22	0.22	0.14	0.24	0.24
Volume/Cap:	0.27	0.72	0.78	0.78	0.78	0.16	0.15	0.52	0.52	0.52	0.78	0.79
Delay/Veh:	24.7	31.6	35.8	29.1	29.1	17.5	24.0	21.4	21.4	26.1	26.1	32.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.7	31.6	35.8	29.1	29.1	17.5	24.0	21.4	21.4	26.1	26.1	32.6
DesignQueue:	2	4	4	5	4	2	2	9	1	4	17	8

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LEVEL OF SERVICE CALCULATION WORKSHEETS  
YEAR 2010 PLUS PROJECT CONDITIONS  
WITH MITIGATIONS

Uptown Project Traffic Impact Analysis  
Year 2010 plus Project - AM Peak Hour  
MITIGATED

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #23 Frontage Rd./ W. Grand Ave.

Cycle (sec): 65 Critical Vol./Cap. (X): 0.699  
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 27.5  
Optimal Cycle:OPTIMIZED Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	7	0	0	4	0	0
Lanes:	1	0	1	1	0	0	2	0	1	1	0	2

Volume Module:

Base Vol:	51	127	138	156	122	49	56	308	48	104	532	244
Growth Adj:	1.02	1.02	1.02	1.20	1.20	1.20	1.02	1.02	1.02	1.14	1.14	1.14
Initial Bse:	52	130	141	187	146	59	57	314	49	119	606	278
Added Vol:	0	0	0	0	0	0	0	24	0	0	99	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	52	130	141	187	146	59	57	338	49	119	705	278
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	55	136	148	197	154	62	60	356	52	125	743	293
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	55	136	148	197	154	62	60	356	52	125	743	293
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	55	136	148	197	154	62	60	356	52	125	743	293

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.83	0.83	0.93	0.93	0.81	0.88	0.89	0.89	0.90	0.90	0.81
Lanes:	1.00	1.00	1.00	0.56	0.44	1.00	2.00	1.75	0.25	1.00	2.00	1.00
Final Sat.:	1718	1584	1584	988	772	1537	3334	2945	426	1718	3437	1537

Capacity Analysis Module:

Vol/Sat:	0.03	0.09	0.09	0.20	0.20	0.04	0.02	0.12	0.12	0.07	0.22	0.19
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.12	0.12	0.12	0.25	0.25	0.25	0.11	0.24	0.24	0.14	0.27	0.27
Volume/Cap:	0.27	0.73	0.79	0.79	0.79	0.16	0.17	0.51	0.51	0.51	0.79	0.69
Delay/Veh:	26.8	34.2	38.9	31.7	31.7	19.1	26.6	22.0	22.0	27.4	26.3	26.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	26.8	34.2	38.9	31.7	31.7	19.1	26.6	22.0	22.0	27.4	26.3	26.1
DesignQueue:	2	4	5	6	4	2	2	10	1	4	21	8

Uptown Project Traffic Impact Analysis  
Year 2010 Plus Project - PM Peak Hour  
MITIGATED

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

Intersection #23 Frontage Rd./ W. Grand Ave.

Cycle (sec): 105 Critical Vol./Cap. (X): 0.861  
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 38.4  
Optimal Cycle:OPTIMIZED Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	7	0	0	7	0	0
Lanes:	1	0	1	1	0	0	2	0	1	1	0	2

Volume Module:

Base Vol:	28	157	172	84	62	5	381	309	61	95	914	298
Growth Adj:	1.00	1.00	1.00	1.13	1.13	1.13	1.41	1.41	1.41	1.18	1.18	1.18
Initial Bse:	28	157	172	95	70	6	537	436	86	112	1079	352
Added Vol:	0	0	0	0	0	0	0	101	0	0	55	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	28	157	172	95	70	6	537	537	86	112	1134	352
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	29	165	181	100	74	6	565	565	91	118	1193	370
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	165	181	100	74	6	565	565	91	118	1193	370
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	29	165	181	100	74	6	565	565	91	118	1193	370

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.83	0.83	0.93	0.93	0.81	0.88	0.89	0.89	0.90	0.90	0.81
Lanes:	1.00	1.00	1.00	0.58	0.42	1.00	2.00	1.72	0.28	1.00	2.00	1.00
Final Sat.:	1718	1584	1584	1012	747	1537	3334	2900	465	1718	3437	1537

Capacity Analysis Module:

Vol/Sat:	0.02	0.10	0.11	0.10	0.10	0.00	0.17	0.19	0.19	0.07	0.35	0.24
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.13	0.13	0.13	0.11	0.11	0.11	0.20	0.44	0.44	0.16	0.40	0.40
Volume/Cap:	0.13	0.79	0.86	0.86	0.86	0.03	0.86	0.44	0.44	0.44	0.86	0.60
Delay/Veh:	40.4	53.1	61.6	75.0	75.0	41.4	52.0	20.4	20.4	41.3	34.4	26.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.4	53.1	61.6	75.0	75.0	41.4	52.0	20.4	20.4	41.3	34.4	26.2
DesignQueue:	1	9	9	5	4	0	28	19	3	6	45	14

LEVEL OF SERVICE CALCULATION WORKSHEETS  
YEAR 2025 NO PROJECT CONDITIONS  
WITH MITIGATIONS



Uptown Project Traffic Impact Analysis
Year 2025 No Project - AM Peak Hour
MITIGATED

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #14 Telegraph Ave./ 19th St.

Cycle (sec): 70 Critical Vol./Cap. (X): 0.785
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 19.2
Optimal Cycle: 56 Level of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Lanes.

Volume Module table with 11 columns and 15 rows of traffic volume and delay data.

Saturation Flow Module table with 11 columns and 5 rows of saturation and adjustment data.

Capacity Analysis Module table with 11 columns and 10 rows of capacity and queue data.

Uptown Project Traffic Impact Analysis
Year 2025 No Project - AM Peak Hour
MITIGATED

Level of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #23 Frontage Rd./ W. Grand Ave.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.799
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 37.5
Optimal Cycle: 86 Level of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 4 rows: Movement, Control, Rights, Lanes.

Volume Module table with 11 columns and 15 rows of traffic volume and delay data.

Saturation Flow Module table with 11 columns and 5 rows of saturation and adjustment data.

Capacity Analysis Module table with 11 columns and 10 rows of capacity and queue data.

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
MITIGATED

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #14 Telegraph Ave./ 19th St.  
\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap. (X): 0.966  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 43.5  
Optimal Cycle: 176 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	0	0	1	0	0	0	0	1	1

Volume Module:

Base Vol:	57	355	0	0	377	46	0	0	0	28	552	122
Growth Adj:	1.06	1.06	1.06	1.32	1.32	1.32	1.00	1.00	1.00	2.38	2.38	2.38
Initial Bse:	60	376	0	0	498	61	0	0	0	67	1314	290
Added Vol:	0	2	0	0	4	0	0	0	0	0	1	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	60	378	0	0	502	61	0	0	0	67	1315	292
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.93	0.93	0.93	1.00	1.00	1.00	0.94	0.94	0.94
PHF Volume:	62	390	0	0	539	65	0	0	0	71	1399	311
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	390	0	0	539	65	0	0	0	71	1399	311
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	62	390	0	0	539	65	0	0	0	71	1399	311

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.68	0.85	1.00	1.00	0.75	0.75	1.00	1.00	1.00	0.81	0.81	0.72
Lanes:	1.00	1.00	0.00	0.00	0.89	0.11	0.00	0.00	0.00	0.10	1.90	1.00
Final Sat.:	1283	1615	0	0	1275	154	0	0	0	148	2920	1373

Capacity Analysis Module:

Vol/Sat:	0.05	0.24	0.00	0.00	0.42	0.42	0.00	0.00	0.00	0.48	0.48	0.23
Crit Moves:	****			****			****			****		
Green/Cycle:	0.44	0.44	0.00	0.00	0.44	0.44	0.00	0.00	0.00	0.50	0.50	0.50
Volume/Cap:	0.11	0.55	0.00	0.00	0.97	0.97	0.00	0.00	0.00	0.97	0.97	0.46
Delay/Veh:	20.3	28.1	0.0	0.0	61.5	61.5	0.0	0.0	0.0	45.7	45.7	21.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	20.3	28.1	0.0	0.0	61.5	61.5	0.0	0.0	0.0	45.7	45.7	21.9
DesignQueue:	2	15	0	0	22	3	0	0	0	3	52	11

Uptown Project Traffic Impact Analysis  
Year 2025 No Project - PM Peak Hour  
MITIGATED

Level Of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #23 Frontage Rd./ W. Grand Ave.  
\*\*\*\*\*

Cycle (sec): 115 Critical Vol./Cap. (X): 1.003  
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 56.5  
Optimal Cycle: 180 Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	7	0	0	7	0	0
Lanes:	1	0	1	1	0	1	2	0	2	0	1	1

Volume Module:

Base Vol:	28	157	172	84	62	5	381	309	61	95	914	298
Growth Adj:	1.00	1.00	1.00	1.87	1.87	1.87	2.23	2.23	2.23	1.37	1.37	1.37
Initial Bse:	28	157	172	157	116	9	850	689	136	130	1252	408
Added Vol:	0	0	0	0	0	0	0	4	0	0	3	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	28	157	172	157	116	9	850	693	136	130	1255	408
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	29	165	181	165	122	10	894	730	143	137	1321	430
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	165	181	165	122	10	894	730	143	137	1321	430
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	29	165	181	165	122	10	894	730	143	137	1321	430

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.83	0.83	0.90	0.94	0.94	0.88	0.90	0.81	0.90	0.90	0.81
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1718	1584	1584	1718	1789	1789	3334	3437	1537	1718	3437	1537

Capacity Analysis Module:

Vol/Sat:	0.02	0.10	0.11	0.10	0.07	0.01	0.27	0.21	0.09	0.08	0.38	0.28
Crit Moves:	****			****			****			****		
Green/Cycle:	0.11	0.11	0.11	0.10	0.10	0.10	0.27	0.47	0.47	0.18	0.38	0.38
Volume/Cap:	0.15	0.92	1.00	1.00	0.71	0.06	1.00	0.45	0.20	0.45	1.00	0.73
Delay/Veh:	46.3	76.7	100.1	122.8	62.6	47.3	72.9	20.5	17.7	43.3	60.9	34.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	46.3	76.7	100.1	122.8	62.6	47.3	72.9	20.5	17.7	43.3	60.9	34.9
DesignQueue:	2	10	11	10	7	1	45	26	5	7	57	18

LEVEL OF SERVICE CALCULATION WORKSHEETS  
YEAR 2025 PLUS PROJECT CONDITIONS  
WITH MITIGATIONS

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - AM Peak Hour
MITIGATED

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #14 Telegraph Ave./ 19th St.

Cycle (sec): 70 Critical Vol./Cap. (X): 0.936
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 27.0
Optimal Cycle: OPTIMIZED Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 1 0 1 0 0 0 0 1 0 0 0 0 0 0 1 1 0 0 1

Volume Module:

Base Vol: 146 275 0 0 321 41 0 0 0 31 174 133
Growth Adj: 1.04 1.04 1.04 1.57 1.57 1.57 1.00 1.00 1.00 1.75 1.75 1.75
Initial Bse: 152 286 0 0 504 64 0 0 0 54 305 233
Added Vol: 5 54 0 0 59 80 0 0 0 0 6 12
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 157 340 0 0 563 144 0 0 0 54 311 245
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.81 0.81 0.81 0.82 0.82 0.82 0.90 0.90 0.90 0.83 0.83 0.83
PHF Volume: 194 420 0 0 687 176 0 0 0 66 375 296
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 194 420 0 0 687 176 0 0 0 66 375 296
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 194 420 0 0 687 176 0 0 0 66 375 296

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.48 0.85 1.00 1.00 0.74 0.74 1.00 1.00 1.00 0.81 0.81 0.72
Lanes: 1.00 1.00 0.00 0.00 0.80 0.20 0.00 0.00 0.00 0.30 1.70 1.00
Final Sat.: 908 1615 0 0 1121 287 0 0 0 456 2612 1373

Capacity Analysis Module:

Vol/Sat: 0.21 0.26 0.00 0.00 0.61 0.61 0.00 0.00 0.00 0.14 0.14 0.22
Crit Moves: \*\*\*\*
Green/Cycle: 0.66 0.66 0.00 0.00 0.66 0.66 0.00 0.00 0.00 0.23 0.23 0.23
Volume/Cap: 0.33 0.40 0.00 0.00 0.94 0.94 0.00 0.00 0.00 0.62 0.62 0.94
Delay/Veh: 6.7 6.7 0.0 0.0 28.3 28.3 0.0 0.0 0.0 28.3 28.3 63.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 6.7 6.7 0.0 0.0 28.3 28.3 0.0 0.0 0.0 28.3 28.3 63.0
DesignQueue: 3 6 0 0 10 3 0 0 0 2 12 9

Uptown Project Traffic Impact Analysis
Year 2025 plus Project - AM Peak Hour
MITIGATED

Level Of Service Computation Report
1997 HCM Operations Method (Future Volume Alternative)

Intersection #23 Frontage Rd./ W. Grand Ave.

Cycle (sec): 100 Critical Vol./Cap. (X): 0.834
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 41.2
Optimal Cycle: 95 Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 7 0 0 0 4 0 0 0
Lanes: 1 0 0 1 1 1 0 0 0 1 1 2 0 2 0 1 1 0 2 0 1

Volume Module:

Base Vol: 51 127 138 156 122 49 56 308 48 104 532 244
Growth Adj: 1.02 1.02 1.02 3.34 3.34 3.34 1.02 1.02 1.02 1.52 1.52 1.52
Initial Bse: 52 130 141 521 407 164 57 314 49 158 809 371
Added Vol: 0 0 0 0 0 0 0 24 0 0 99 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 52 130 141 521 407 164 57 338 49 158 908 371
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 55 136 148 548 429 172 60 356 52 166 955 390
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 55 136 148 548 429 172 60 356 52 166 955 390
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 55 136 148 548 429 172 60 356 52 166 955 390

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.88 0.88 0.90 0.91 0.91 0.88 0.90 0.81 0.90 0.90 0.81
Lanes: 1.00 0.96 1.04 1.00 1.00 1.00 2.00 2.00 1.00 1.00 2.00 1.00
Final Sat.: 1718 1598 1737 1718 1731 1731 3334 3437 1537 1718 3437 1537

Capacity Analysis Module:

Vol/Sat: 0.03 0.09 0.09 0.32 0.25 0.10 0.02 0.10 0.03 0.10 0.28 0.25
Crit Moves: \*\*\*\*
Green/Cycle: 0.10 0.10 0.10 0.36 0.36 0.36 0.07 0.20 0.20 0.19 0.31 0.31
Volume/Cap: 0.33 0.89 0.89 0.89 0.69 0.28 0.26 0.52 0.17 0.52 0.89 0.81
Delay/Veh: 43.4 68.9 68.9 44.5 29.5 22.8 44.6 36.6 33.5 38.3 41.7 41.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 43.4 68.9 68.9 44.5 29.5 22.8 44.6 36.6 33.5 38.3 41.7 41.5
DesignQueue: 3 7 8 21 16 6 3 16 2 8 39 16

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak  
MITIGATED

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #14 Telegraph Ave. / 19th St.  
\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap. (X): 1.076  
Loss Time (sec): 8 (Y+R = 6 sec) Average Delay (sec/veh): 66.5  
Optimal Cycle: 180 Level Of Service: E

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	17	0	0	17	0	0	0	0	0	22	0
Lanes:	1	0	1	0	0	1	0	0	0	0	1	1

Volume Module:

Base Vol:	57	355	0	0	377	46	0	0	0	28	552	122
Growth Adj:	1.06	1.06	1.06	1.32	1.32	1.32	1.00	1.00	1.00	2.38	2.38	2.38
Initial Bse:	60	376	0	0	498	61	0	0	0	67	1314	290
Added Vol:	23	62	0	0	50	69	0	0	0	0	28	47
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	83	438	0	0	548	130	0	0	0	67	1342	337
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.93	0.93	0.93	1.00	1.00	1.00	0.94	0.94	0.94
PHF Volume:	86	452	0	0	589	139	0	0	0	71	1427	359
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	86	452	0	0	589	139	0	0	0	71	1427	359
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	86	452	0	0	589	139	0	0	0	71	1427	359

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.64	0.85	1.00	1.00	0.74	0.74	1.00	1.00	1.00	0.81	0.81	0.72
Lanes:	1.00	1.00	0.00	0.00	0.81	0.19	0.00	0.00	0.00	0.09	1.91	1.00
Final Sat.:	1216	1615	0	0	1141	270	0	0	0	145	2923	1373

Capacity Analysis Module:

Vol/Sat:	0.07	0.28	0.00	0.00	0.52	0.52	0.00	0.00	0.00	0.49	0.49	0.26
Crit Moves:	*****											
Green/Cycle:	0.48	0.48	0.00	0.00	0.48	0.48	0.00	0.00	0.00	0.45	0.45	0.45
Volume/Cap:	0.15	0.58	0.00	0.00	1.08	1.08	0.00	0.00	0.00	1.08	1.08	0.58
Delay/Veh:	18.0	25.8	0.0	0.0	88.1	88.1	0.0	0.0	0.0	80.2	80.2	28.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	18.0	25.8	0.0	0.0	88.1	88.1	0.0	0.0	0.0	80.2	80.2	28.1
DesignQueue:	3	17	0	0	23	5	0	0	0	3	58	14

\*\*\*\*\*

Uptown Project Traffic Impact Analysis  
Year 2025 plus Project - PM Peak  
MITIGATED

Level of Service Computation Report  
1997 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #23 Frontage Rd. / W. Grand Ave.  
\*\*\*\*\*

Cycle (sec): 115 Critical Vol./Cap. (X): 1.021  
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 58.4  
Optimal Cycle: OPTIMIZED Level Of Service: E

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	7	0	0	7	0	0
Lanes:	1	0	1	1	0	1	2	0	2	1	0	2

Volume Module:

Base Vol:	28	157	172	84	62	5	381	309	61	95	914	298
Growth Adj:	1.00	1.00	1.00	1.87	1.87	1.87	2.23	2.23	2.23	1.37	1.37	1.37
Initial Bse:	28	157	172	157	116	9	850	689	136	130	1252	408
Added Vol:	0	0	0	0	0	0	0	101	0	0	55	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	28	157	172	157	116	9	850	790	136	130	1307	408
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	29	165	181	165	122	10	894	832	143	137	1376	430
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	165	181	165	122	10	894	832	143	137	1376	430
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	29	165	181	165	122	10	894	832	143	137	1376	430

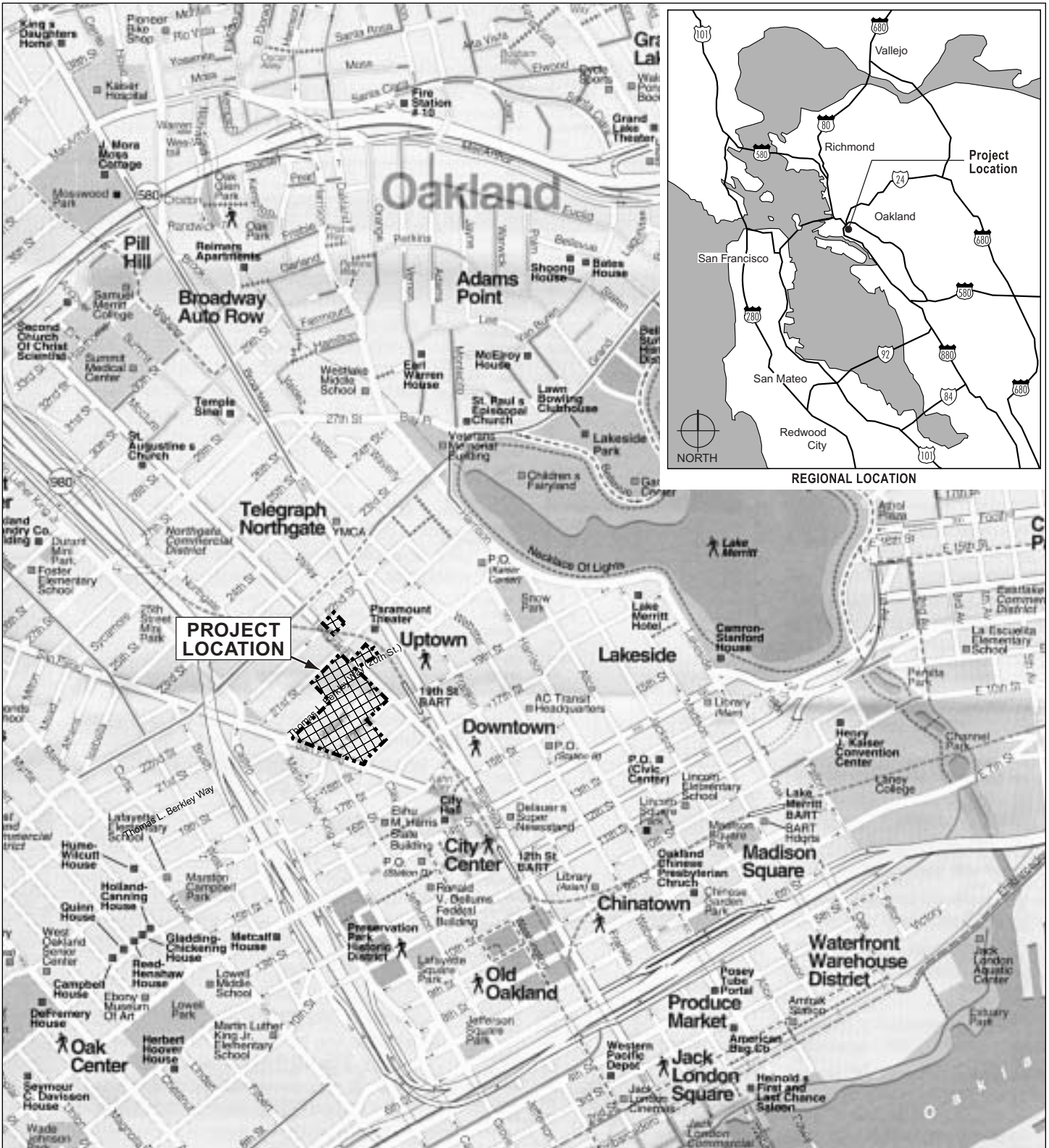
Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.83	0.83	0.90	0.94	0.94	0.88	0.90	0.81	0.90	0.90	0.81
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1718	1584	1584	1718	1789	1789	3334	3437	1537	1718	3437	1537

Capacity Analysis Module:

Vol/Sat:	0.02	0.10	0.11	0.10	0.07	0.01	0.27	0.24	0.09	0.08	0.40	0.28
Crit Moves:	*****											
Green/Cycle:	0.11	0.11	0.11	0.09	0.09	0.09	0.26	0.49	0.49	0.16	0.39	0.39
Volume/Cap:	0.15	0.93	1.02	1.02	0.72	0.06	1.02	0.49	0.19	0.49	1.02	0.71
Delay/Veh:	46.5	80.6	105.5	128.5	64.1	47.4	78.3	19.8	16.5	45.2	65.0	33.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	46.5	80.6	105.5	128.5	64.1	47.4	78.3	19.8	16.5	45.2	65.0	33.5
DesignQueue:	2	10	11	10	7	1	45	29	5	7	59	18

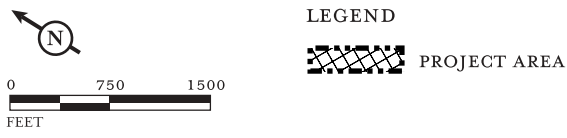
\*\*\*\*\*



LSA

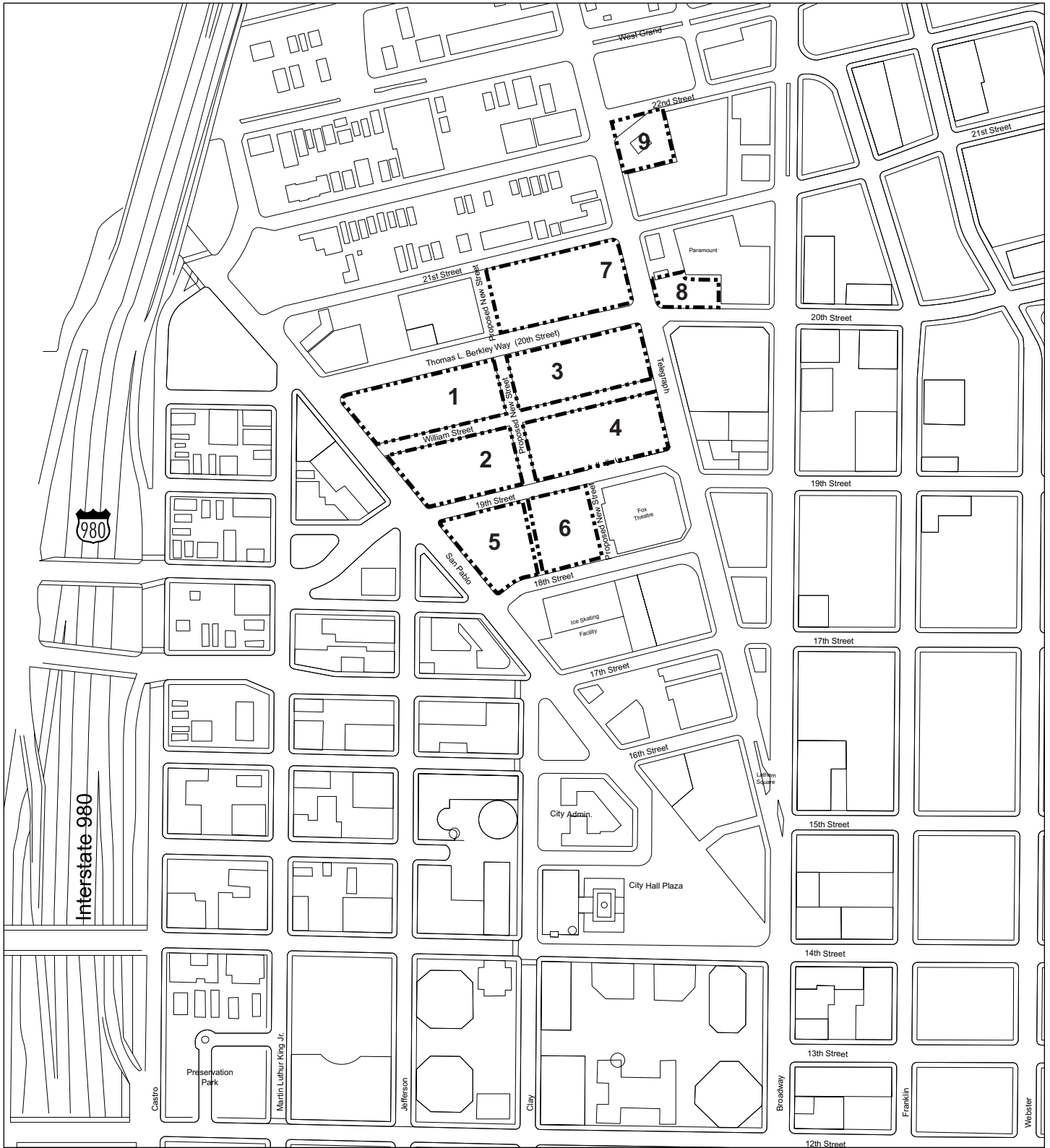
FIGURE I-1

Uptown Mixed Use Project EIR  
Location Map



SOURCE: RUFUS GRAPHICS, 2002.  
I:\IMAGES\GRAPHICS\JOBS\FCR230 UPTOWN\FIGURES\FIG\_I1.AI (09/10/03)





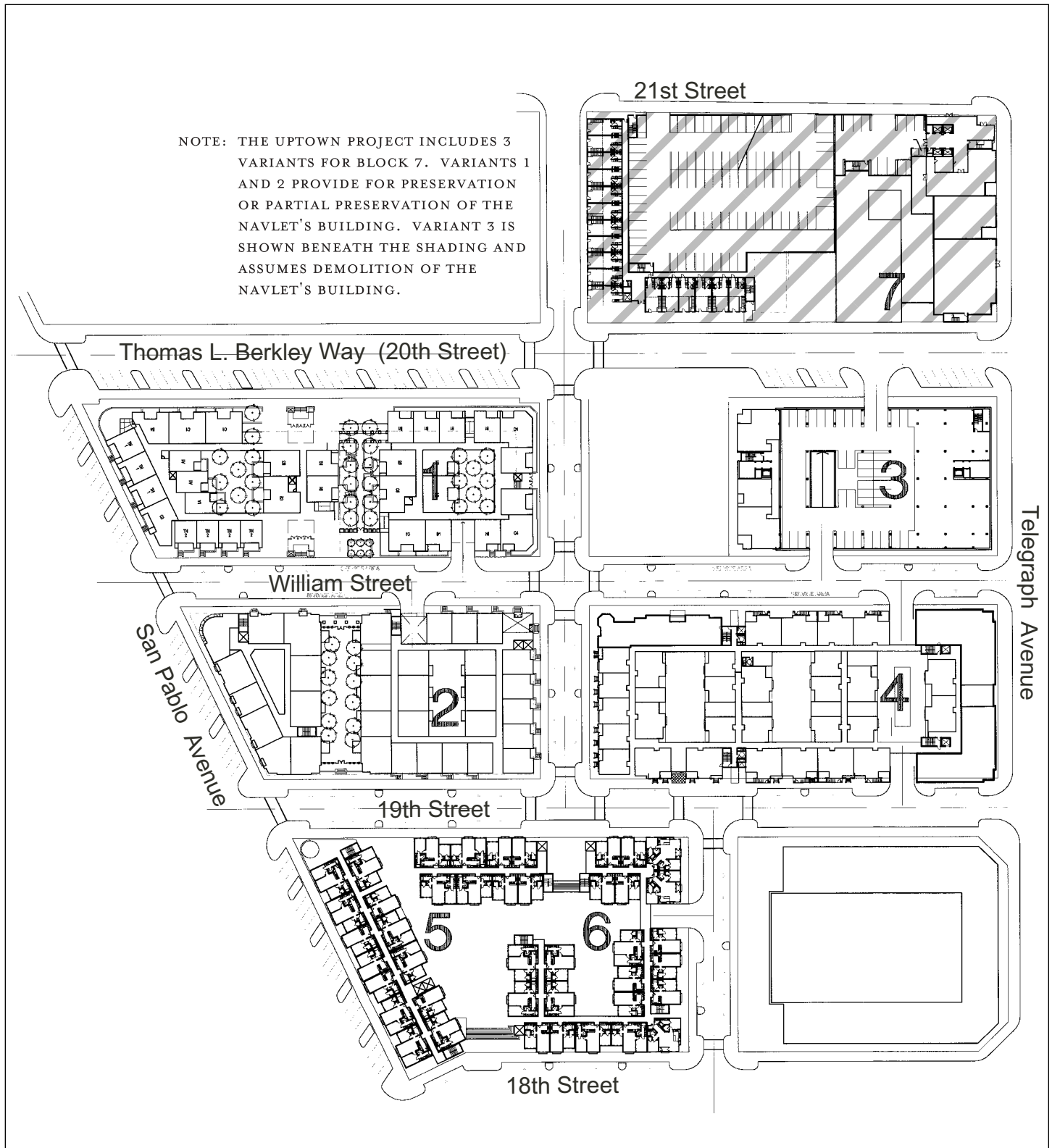
LSA

FIGURE III-1

*Uptown Mixed Use Project EIR*  
 Project Boundaries

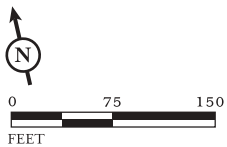


LEGEND  
 PROJECT PARCELS



LSA

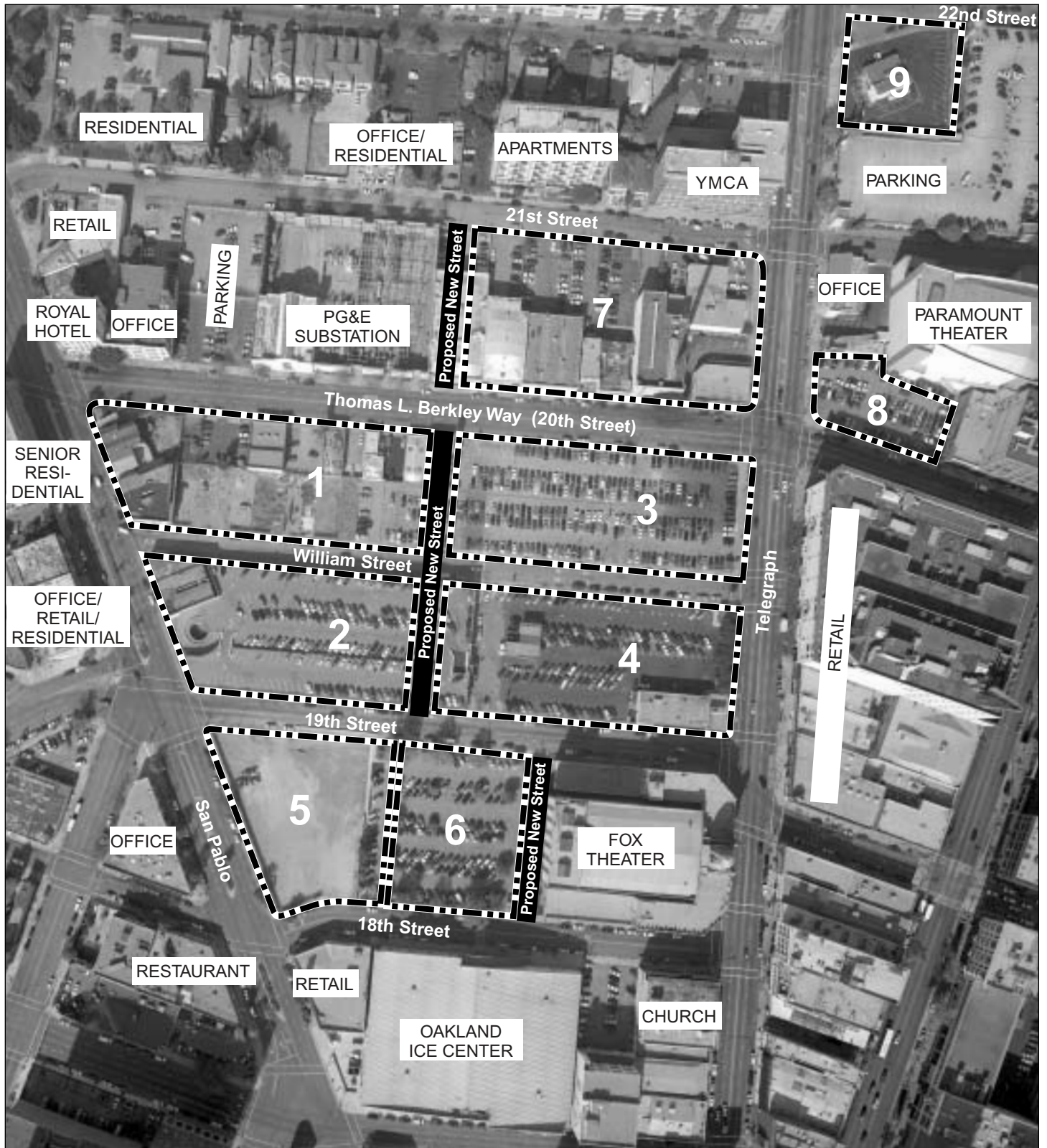
FIGURE III-2



NOTE: REFER TO FIGURE III-1 FOR THE LOCATIONS OF BLOCKS 1-9. BLOCKS 8 AND 9 ARE NOT SHOWN ON THIS CONCEPTUAL PLAN AS NO DETAILED SITE PLAN HAS BEEN PREPARED FOR THESE BLOCKS SINCE THEY ARE PROPOSED AS ALTERNATE RELOCATION SITES FOR THE SEARS AUTO CENTER.

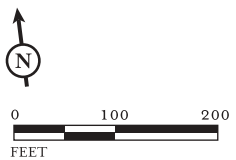
Uptown Mixed Use Project EIR  
Conceptual Site Plan





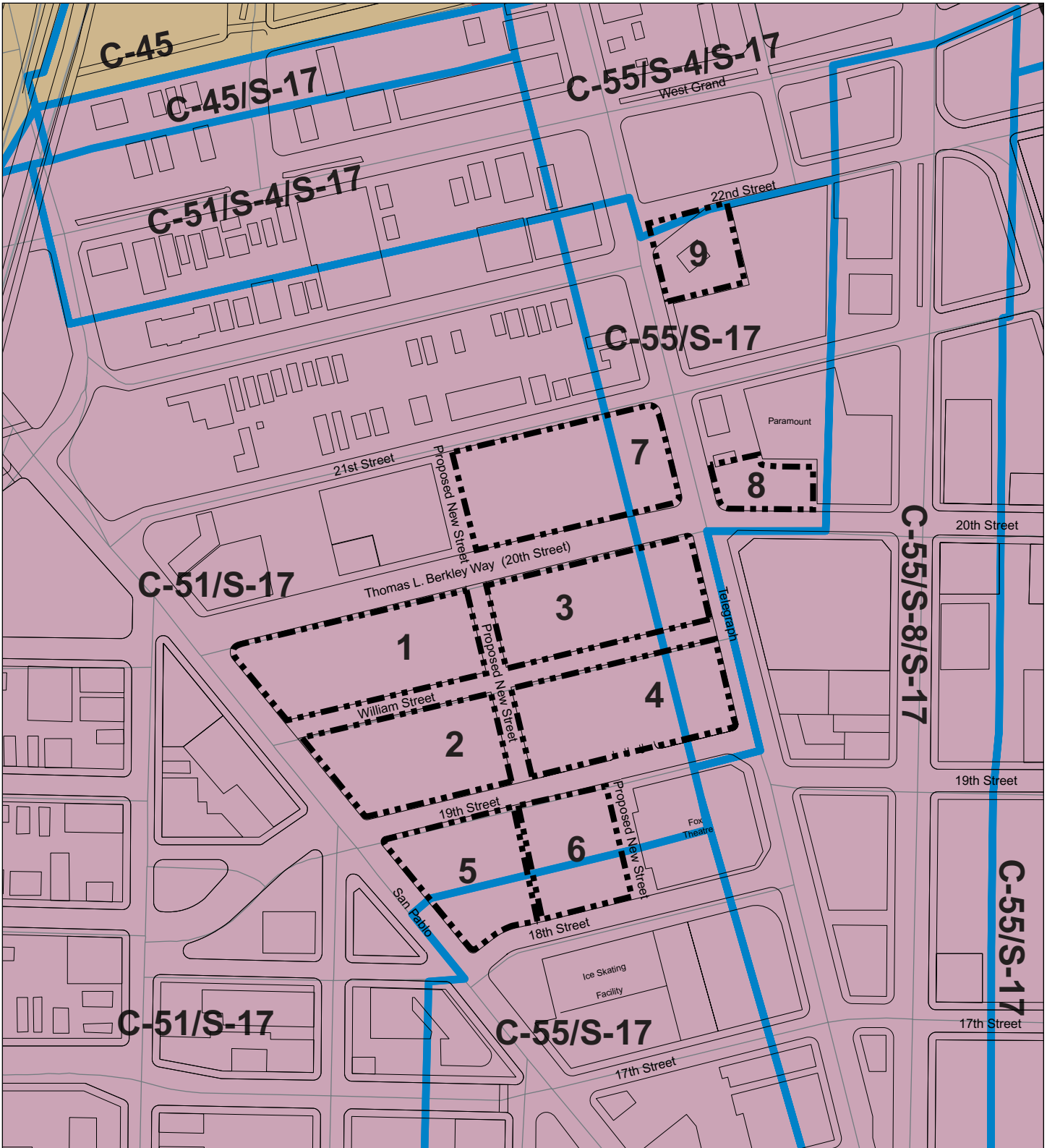
LSA

FIGURE IV.A-1



LEGEND  
 UPTOWN PROJECT PARCELS





*Uptown Mixed Use Project EIR*  
 Land Use in Vicinity  
 of Project Site



LSA



**LEGEND**

	PROJECT PARCELS
<b>GENERAL PLAN LAND USE DESIGNATIONS</b>	
	URBAN RESIDENTIAL
	CENTRAL BUSINESS DISTRICT
	ZONING MAY 2003

**COMMERCIAL ZONING**

<b>C-45</b>	COMMUNITY SHOPPING
<b>C-51</b>	CENTRAL BUSINESS
<b>C-55</b>	CENTRAL CORE

**SPECIAL ZONING**

<b>S-4</b>	DESIGN REVIEW
<b>S-17</b>	DOWNTOWN RESIDENTIAL USABLE OPEN SPACE

FIGURE IV.A-6

*Uptown Mixed Use Project EIR*  
General Plan Land Use and  
Zoning Designations

SOURCE: CITY OF OAKLAND, 2003.  
I:\IMAGES\GRAPHICS\JOBS\FCR230 UPTOWN\FIGURES\FIG\_IVA6.AI (09/10/03)

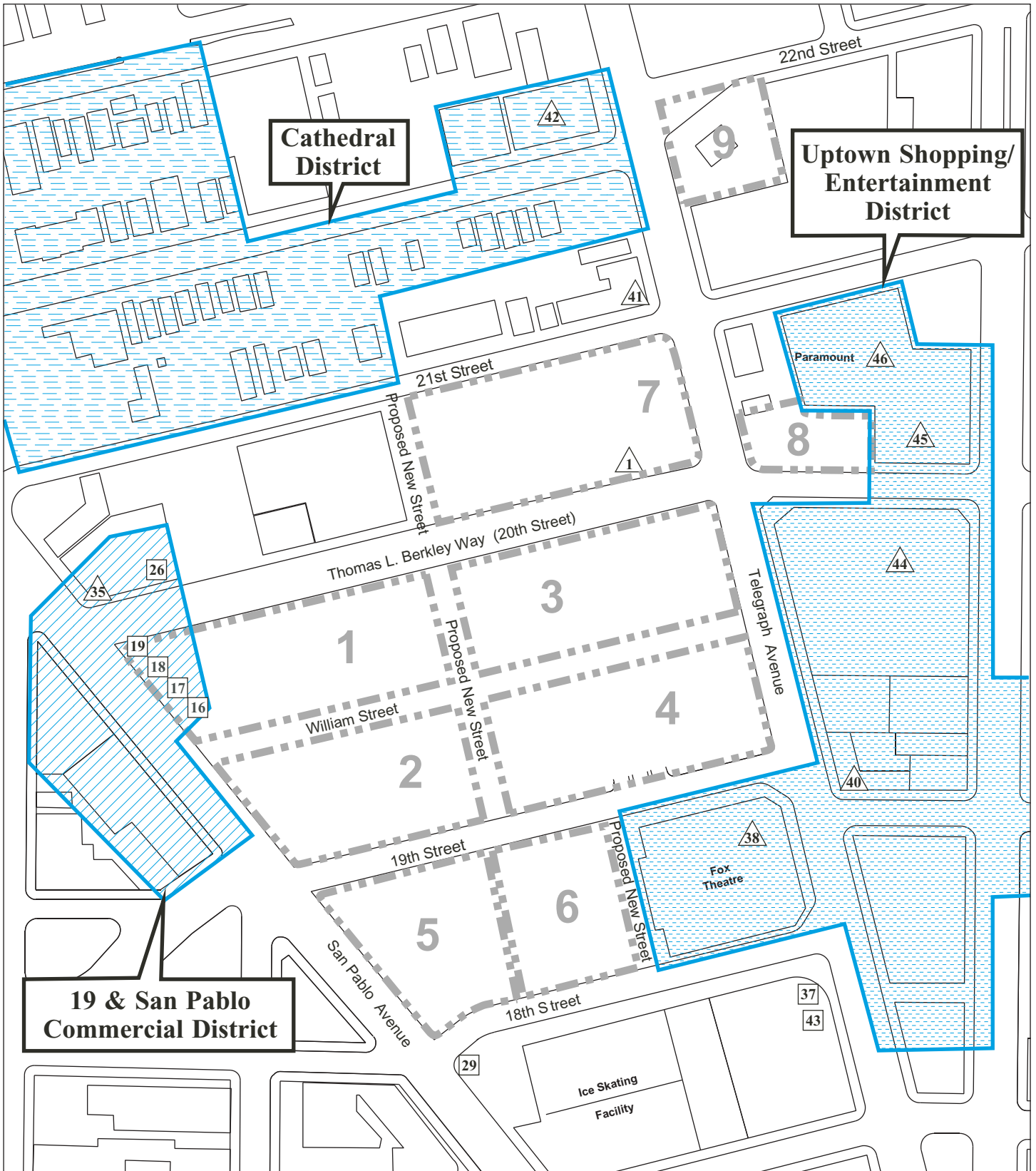





FIGURE IV.I-1

LSA



-  HISTORICAL RESOURCES \*
-  POTENTIAL DESIGNATED HISTORIC PROPERTIES \*
-  PROJECT AREA BOUNDARY

\* SEE TABLES IV.I-1 AND IV.I-2 FOR INDEX TO NUMBERS

*Uptown Mixed Use Project EIR*  
 Historic Architectural  
 Resources and PDHPs





1. Looking northeast from 19th Street



2. Looking northwest from Telegraph Avenue at Williams Street



3. Looking east from San Pablo Avenue at Williams Street

LSA

FIGURE IV.J-1a

*Uptown Mixed Use Project EIR*  
Visual Character Photographs





4. Looking southwest from Telegraph Avenue near Grand Avenue\*



5. Looking north from Telegraph Avenue near 18th Street\*



6. Looking north from Telegraph Avenue at 19th Street

LSA

\* SIMULATION VIEW

FIGURE IV.J-1b

*Uptown Mixed Use Project EIR  
Visual Character Photographs*





7. Looking south from Thomas L. Berkley Way at Broadway



8. Looking north from 19th Street at Broadway



9. Looking northwest from Thomas L. Berkley Way at Franklin Street\*



10. Looking southeast from Telegraph Avenue near 21st Street

LSA

\* SIMULATION VIEW

FIGURE IV.J-1c

*Uptown Mixed Use Project EIR  
Visual Character Photographs*





11. Looking northwest from 21st Street near Telegraph Avenue



12. Looking east from 21st Street near Telegraph Avenue



13. Looking southeast from 21st Street Near San Pablo Avenue



14. Looking southeast from San Pablo Avenue at Thomas L. Berkley Way\*

LSA

\* SIMULATION VIEW

FIGURE IV.J-1d

*Uptown Mixed Use Project EIR  
Visual Character Photographs*





15. Looking south from San Pablo Avenue at Castro Street\*



16. Looking south from San Pablo Avenue at Martin Luther King Jr. Way



17. Looking northwest from San Pablo Avenue at 17th Street



18. Looking northeast from Clay Street at 16th Street

LSA

\* SIMULATION VIEW

FIGURE IV.J-1e

*Uptown Mixed Use Project EIR*  
Visual Character Photographs





19. Looking south from San Pablo Avenue at 17th Street



20. Looking south from Telegraph Avenue between 17th and 18th Streets



21. Looking south from Clay Street at 16th Street



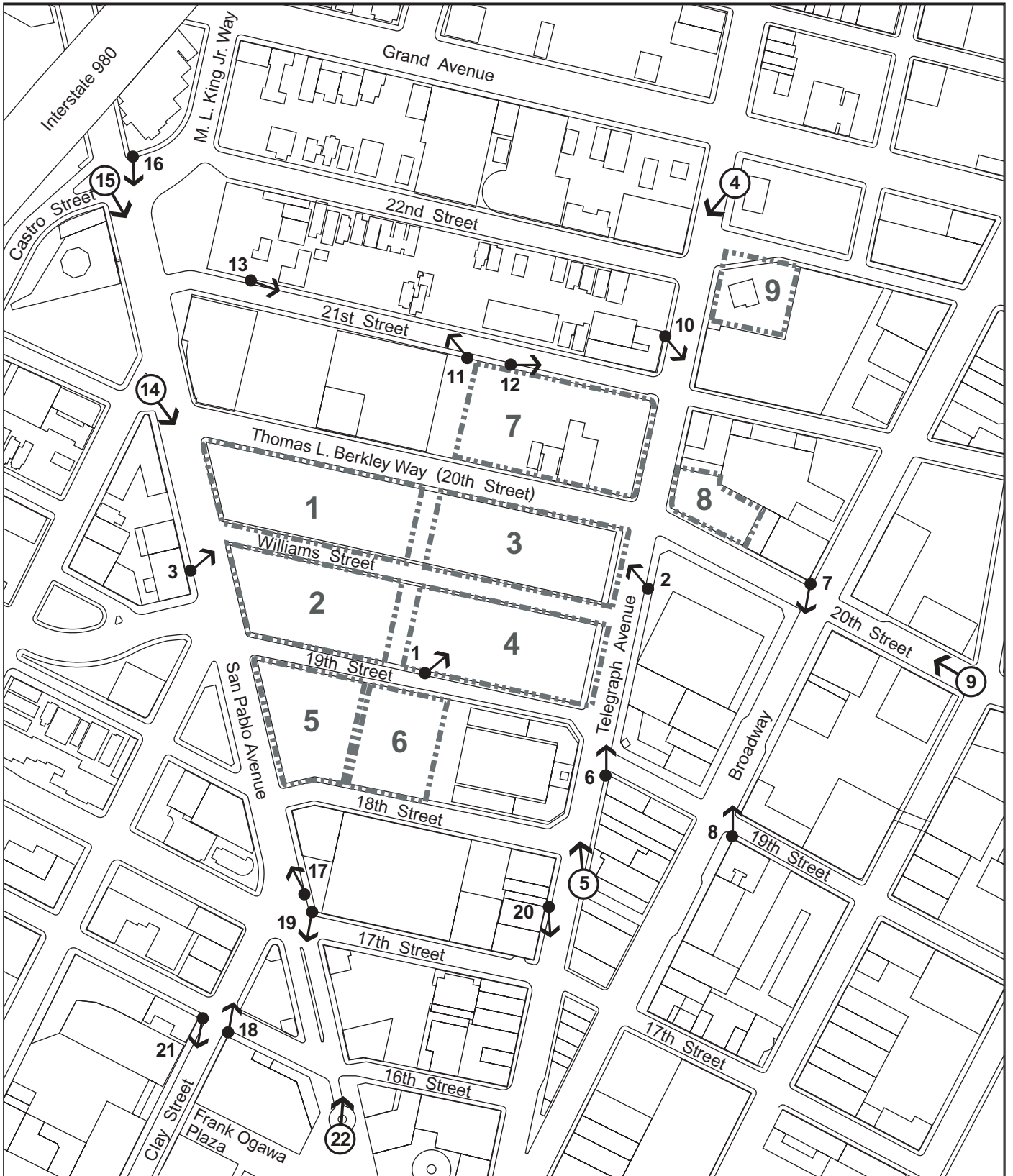
22. Looking north from Frank Ogawa Plaza\*

LSA

\* SIMULATION VIEW

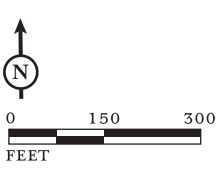
FIGURE IV.J-1f

*Uptown Mixed Use Project EIR  
Visual Character Photographs*



LSA

FIGURE IV.J-2



- 1 Site Photo Viewpoint
- 2 Simulation Viewpoint
- 6 Project Site with Block Number

*Uptown Mixed Use Project EIR*  
Photo Viewpoint Locations





Existing view from Telegraph Avenue near Grand Avenue looking southwest



Conceptual visual simulation of proposed project

LSA

FIGURE IV.J-3

*Uptown Mixed Use Project EIR*  
Conceptual Visual Simulations



Existing view from Telegraph Avenue near 18th Street looking north



Conceptual visual simulation of proposed project

LSA

FIGURE IV.J-4

*Uptown Mixed Use Project EIR*  
Conceptual Visual Simulations





Existing view from Thomas L. Berkley Way (20th Street) at Franklin looking northwest



Conceptual visual simulation of proposed project (also shows Thomas L. Berkley Square project in background)

LSA

FIGURE IV.J-5

*Uptown Mixed Use Project EIR*  
Conceptual Visual Simulations



Existing view from San Pablo Avenue at Thomas L. Berkley Way (20th Street) looking southeast



Conceptual visual simulation of proposed project

LSA

FIGURE IV.J-6

*Uptown Mixed Use Project EIR*  
Conceptual Visual Simulations





Existing view from San Pablo Avenue at Castro Street looking south



Conceptual visual simulation of proposed project (also shows Thomas L. Berkley Square project in foreground)

LSA

FIGURE IV.J-7

*Uptown Mixed Use Project EIR*  
Conceptual Visual Simulations



Existing view from Frank Ogawa Plaza looking north



Conceptual visual simulation of proposed project

LSA

FIGURE IV.J-8

*Uptown Mixed Use Project EIR*  
Conceptual Visual Simulations



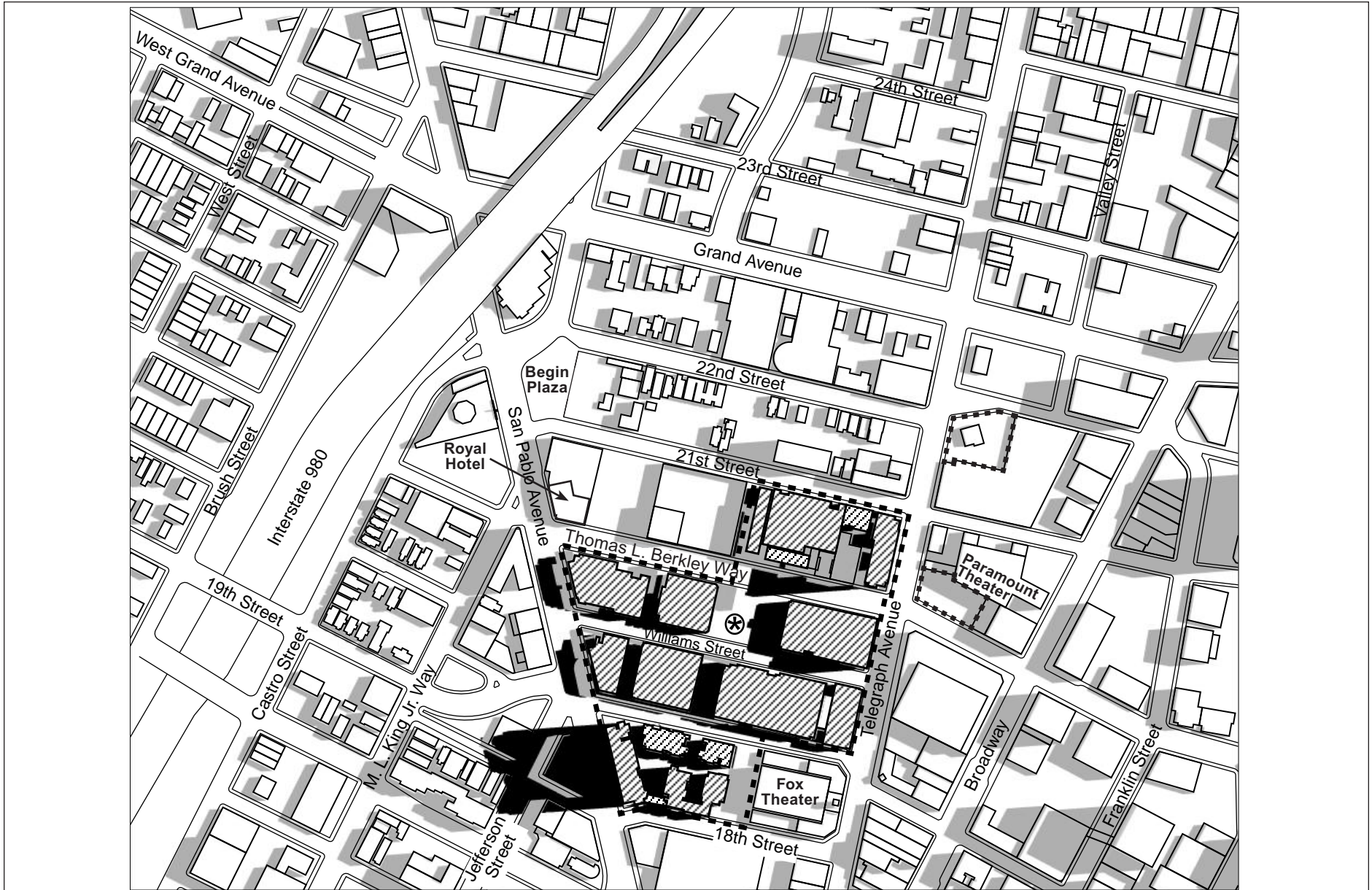
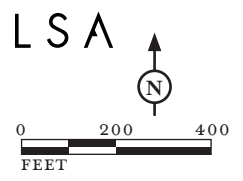


FIGURE IV.L-1

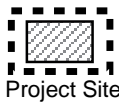
Uptown Mixed Use Project EIR  
 Project Shadow Patterns  
 June 21, 9:00 am PDT



SOURCE: ENVIRONMENTAL VISION, 2003



LSA



New Park

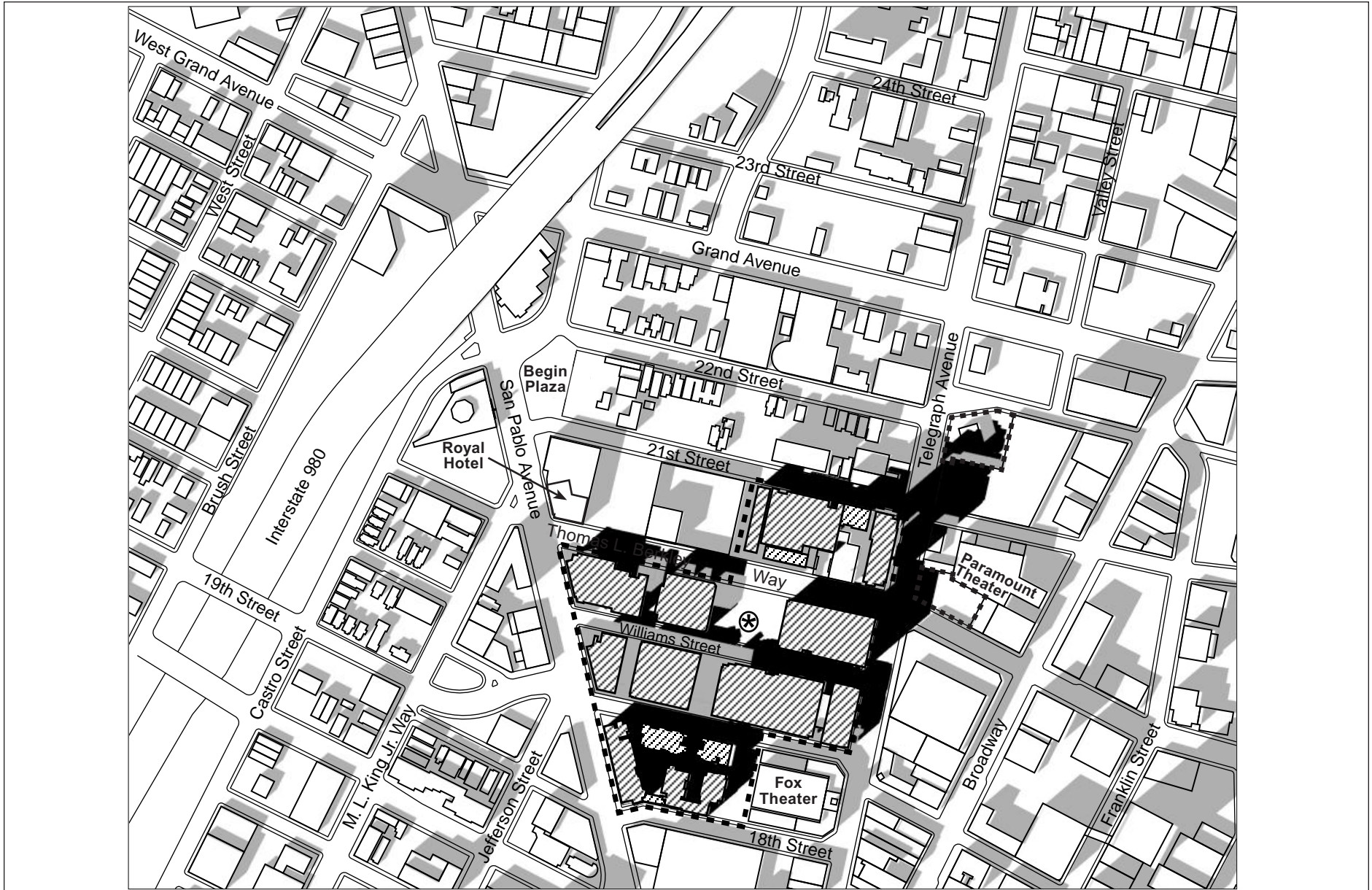
FIGURE IV.L-10

*Uptown Mixed Use Project EIR*  
 Project Shadow Patterns  
 December 21, 3:00 pm PDT

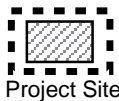
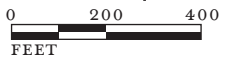
SOURCE: ENVIRONMENTAL VISION, 2003

I:\IMAGES\GRAPHICS\JOBS\FCR230 UPTOWN\FIGURES\FIG\_IVL1-12.INDD (09/08/03)





LSA



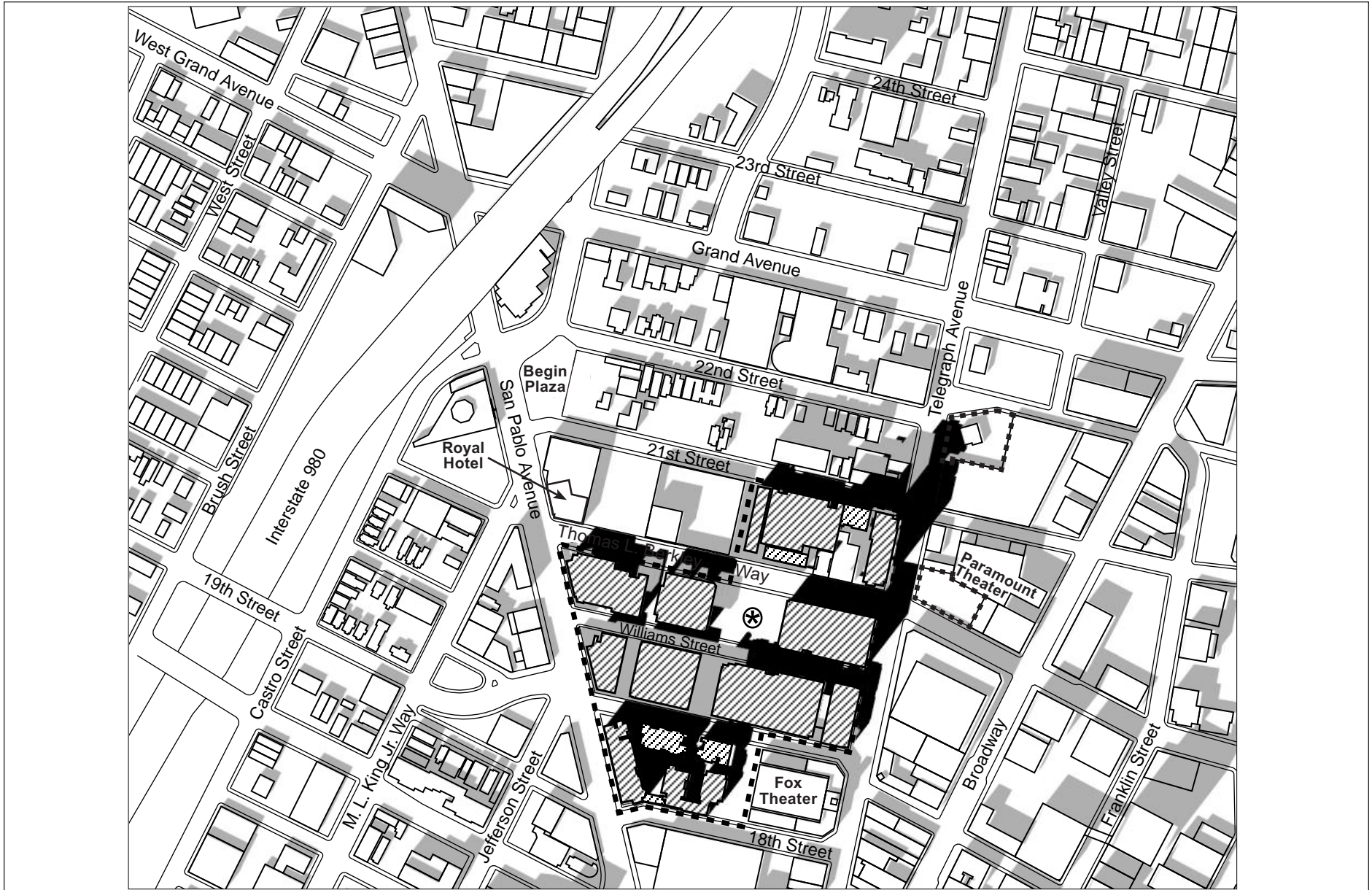
Project Site Existing Shadow New Project Shadow New Park

FIGURE IV.L-11

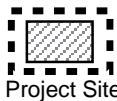
*Uptown Mixed Use Project EIR  
Project Shadow Patterns  
March 21, 3:00 pm PDT*

SOURCE: ENVIRONMENTAL VISION, 2003

I:\IMAGES\GRAPHICS\JOBS\FCR230 UPTOWN\FIGURES\FIG\_IVL1-12.INDD (09/08/03)



LSA



Project Site

Existing Shadow

New Project Shadow

New Park

FIGURE IV.L-12

*Uptown Mixed Use Project EIR*

*Project Shadow Patterns*

*September 21, 3:00 pm PDT*

SOURCE: ENVIRONMENTAL VISION, 2003

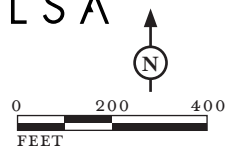
I:\IMAGES\GRAPHICS\JOBS\FCR230 UPTOWN\FIGURES\FIG\_IVL1-12.INDD (09/08/03)





FIGURE IV.L-2

LSA



Uptown Mixed Use Project EIR  
 Project Shadow Patterns  
 December 21, 9:00 am PDT

SOURCE: ENVIRONMENTAL VISION, 2003

I:\IMAGES\GRAPHICS\JOBS\FCR230 UPTOWN\FIGURES\FIG\_IVL1-12.INDD (09/08/03)



LSA

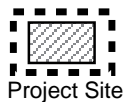
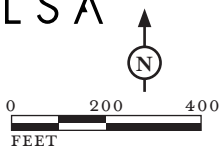


FIGURE IV.L-3

*Uptown Mixed Use Project EIR*  
 Project Shadow Patterns  
 March 21, 9:00 am PDT

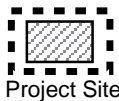
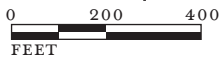
SOURCE: ENVIRONMENTAL VISION, 2003

I:\IMAGES\GRAPHICS\JOBS\FCR230 UPTOWN\FIGURES\FIG\_IVL1-12.INDD (09/08/03)





LSA



Project Site

Existing Shadow

New Project Shadow

New Park

FIGURE IV.L-4

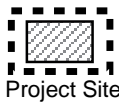
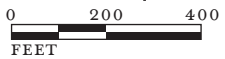
Uptown Mixed Use Project EIR  
 Project Shadow Patterns  
 September 21, 9:00 am PDT

SOURCE: ENVIRONMENTAL VISION, 2003

I:\IMAGES\GRAPHICS\JOBS\FCR230 UPTOWN\FIGURES\FIG\_IVL1-12.INDD (09/08/03)



LSA



Project Site

Existing Shadow

New Project Shadow

New Park

FIGURE IV.L-5

*Uptown Mixed Use Project EIR*  
 Project Shadow Patterns  
 June 21, 12:00 pm PDT

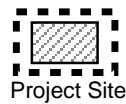
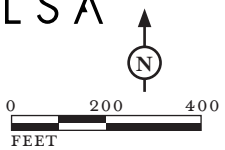




FIGURE IV.L-6

*Uptown Mixed Use Project EIR*  
 Project Shadow Patterns  
 December 21, 12:00 pm PDT

LSA

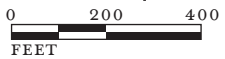


SOURCE: ENVIRONMENTAL VISION, 2003

I:\IMAGES\GRAPHICS\JOBS\FCR230 UPTOWN\FIGURES\FIG\_IVL1-12.INDD (09/08/03)



LSA



Project Site

Existing Shadow

New Project Shadow

New Park

FIGURE IV.L-7

Uptown Mixed Use Project EIR  
 Project Shadow Patterns  
 March 21, 12:00 pm PDT

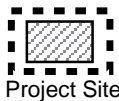
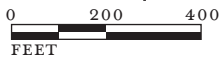
SOURCE: ENVIRONMENTAL VISION, 2003

I:\IMAGES\GRAPHICS\JOBS\FCR230 UPTOWN\FIGURES\FIG\_IVL1-12.INDD (09/08/03)





LSA



Project Site

Existing Shadow

New Project Shadow

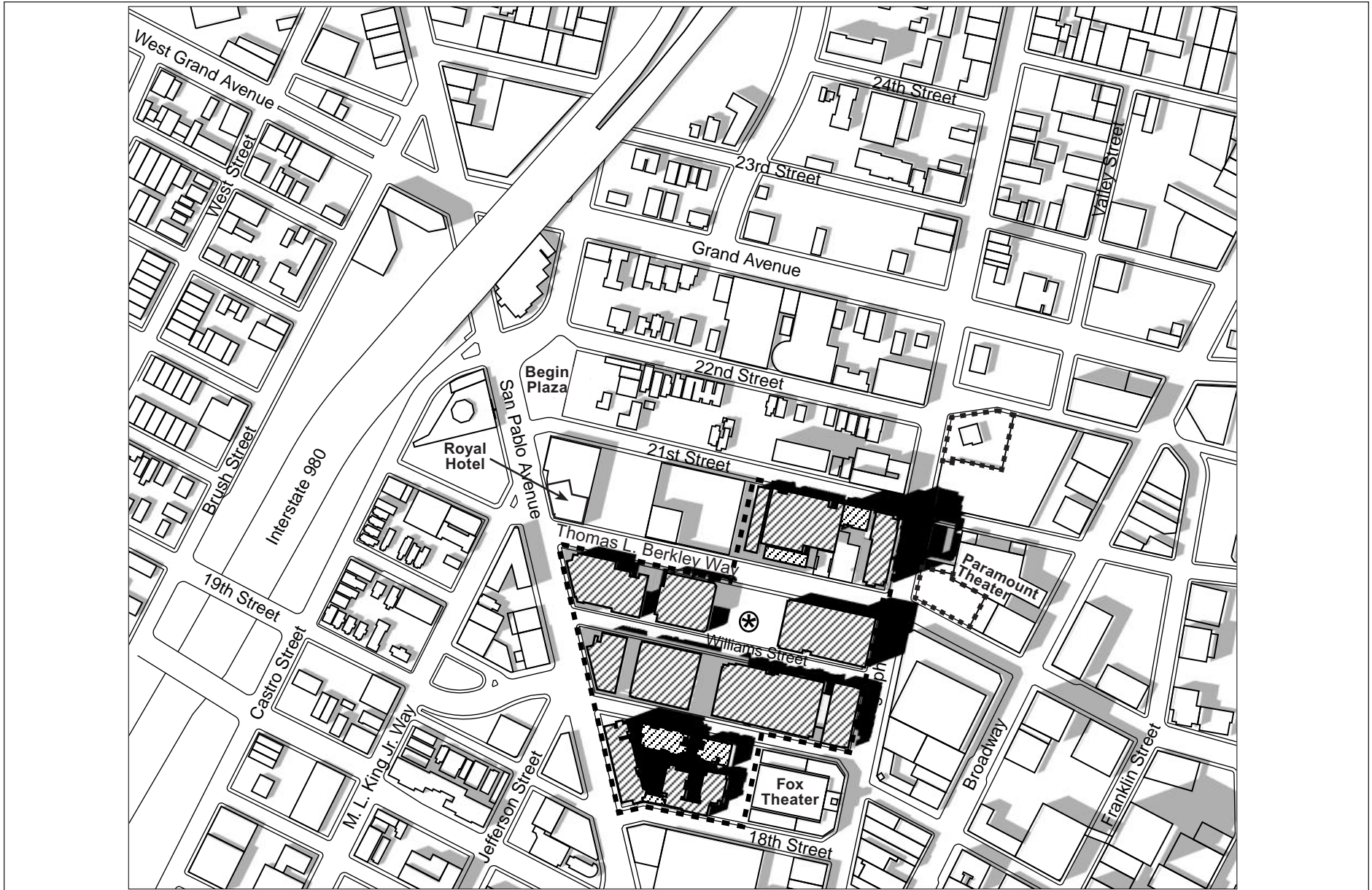
New Park

FIGURE IV.L-8

*Uptown Mixed Use Project EIR*  
 Project Shadow Patterns  
 September 21, 12:00 pm PDT

SOURCE: ENVIRONMENTAL VISION, 2003

I:\IMAGES\GRAPHICS\JOBS\FCR230 UPTOWN\FIGURES\FIG\_IVL1-12.INDD (09/08/03)



LSA

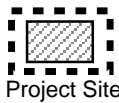
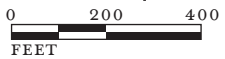


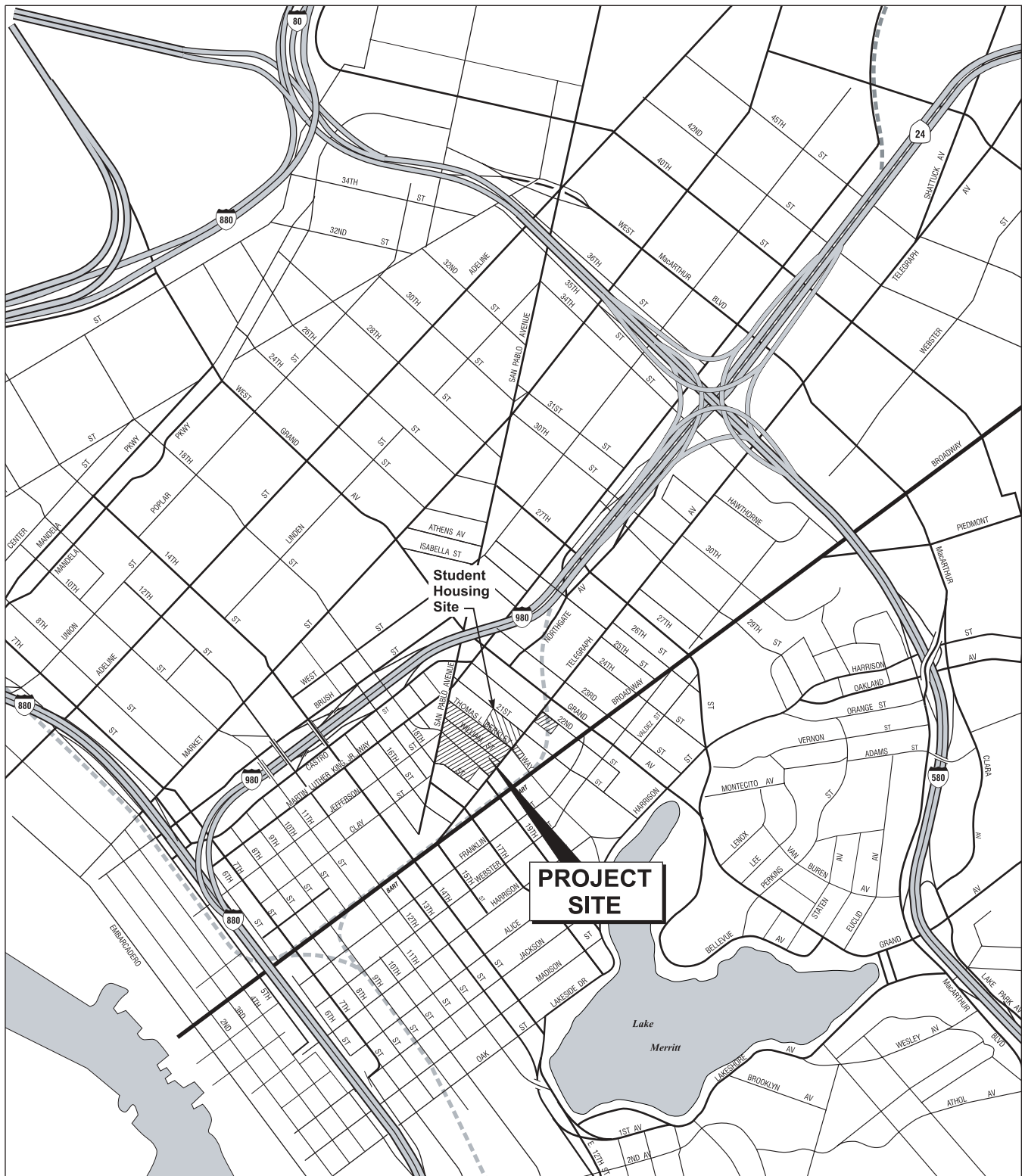
FIGURE IV.L-9

*Uptown Mixed Use Project EIR  
Project Shadow Patterns  
June 21, 3:00 pm PDT*

SOURCE: ENVIRONMENTAL VISION, 2003

I:\IMAGES\GRAPHICS\JOBS\FCR230 UPTOWN\FIGURES\FIG\_IVL1-12.INDD (09/08/03)





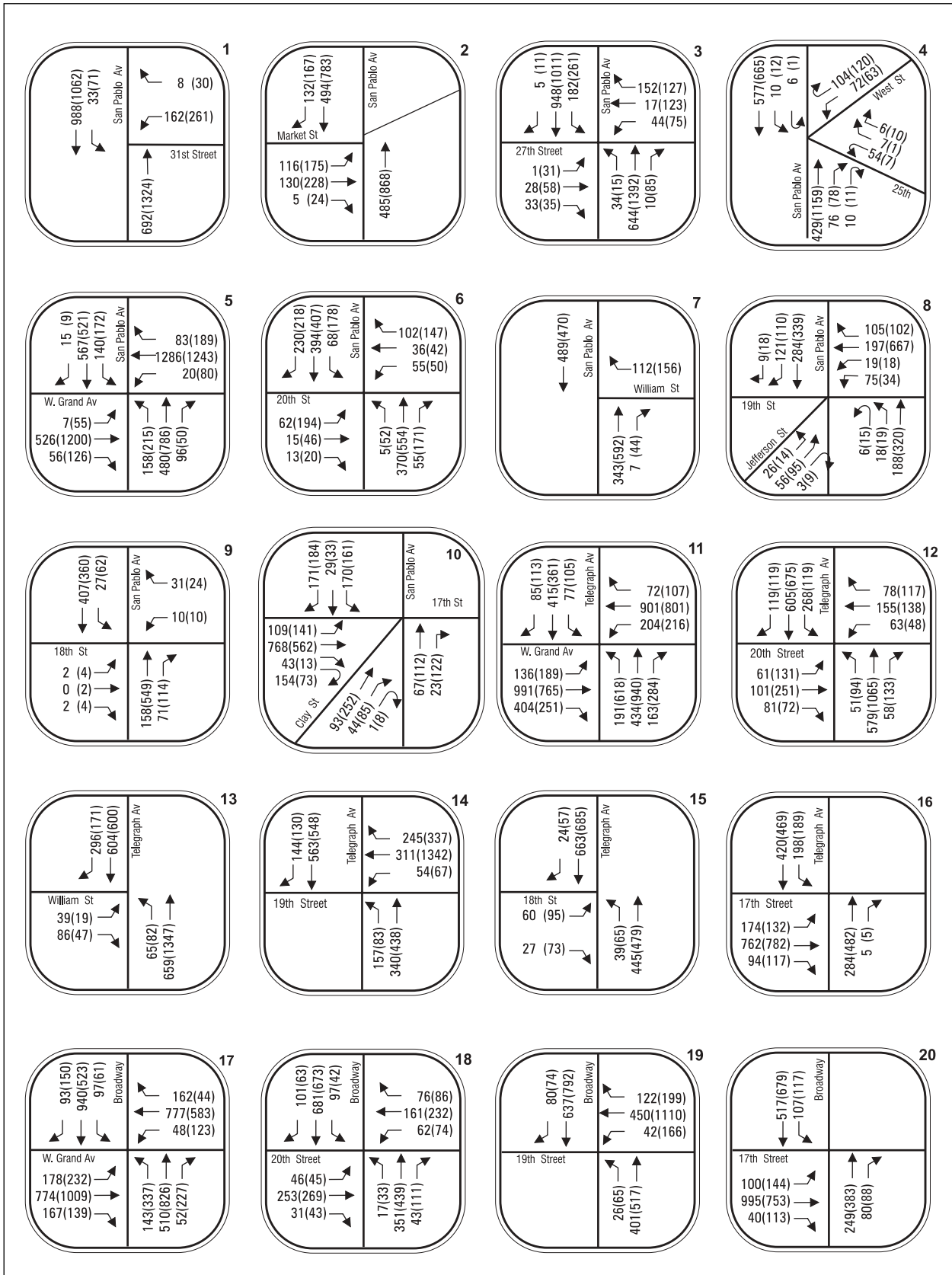
LSA

FIGURE IV.D-1

*Uptown Mixed Use Project EIR*  
 Project Location

SOURCE: KORVE ENGINEERING, 2003

I:\IMAGES\GRAPHICS\JOBS\FCR230 UPTOWN\FIGURES\FIG\_IVD1.AI (09/10/03)

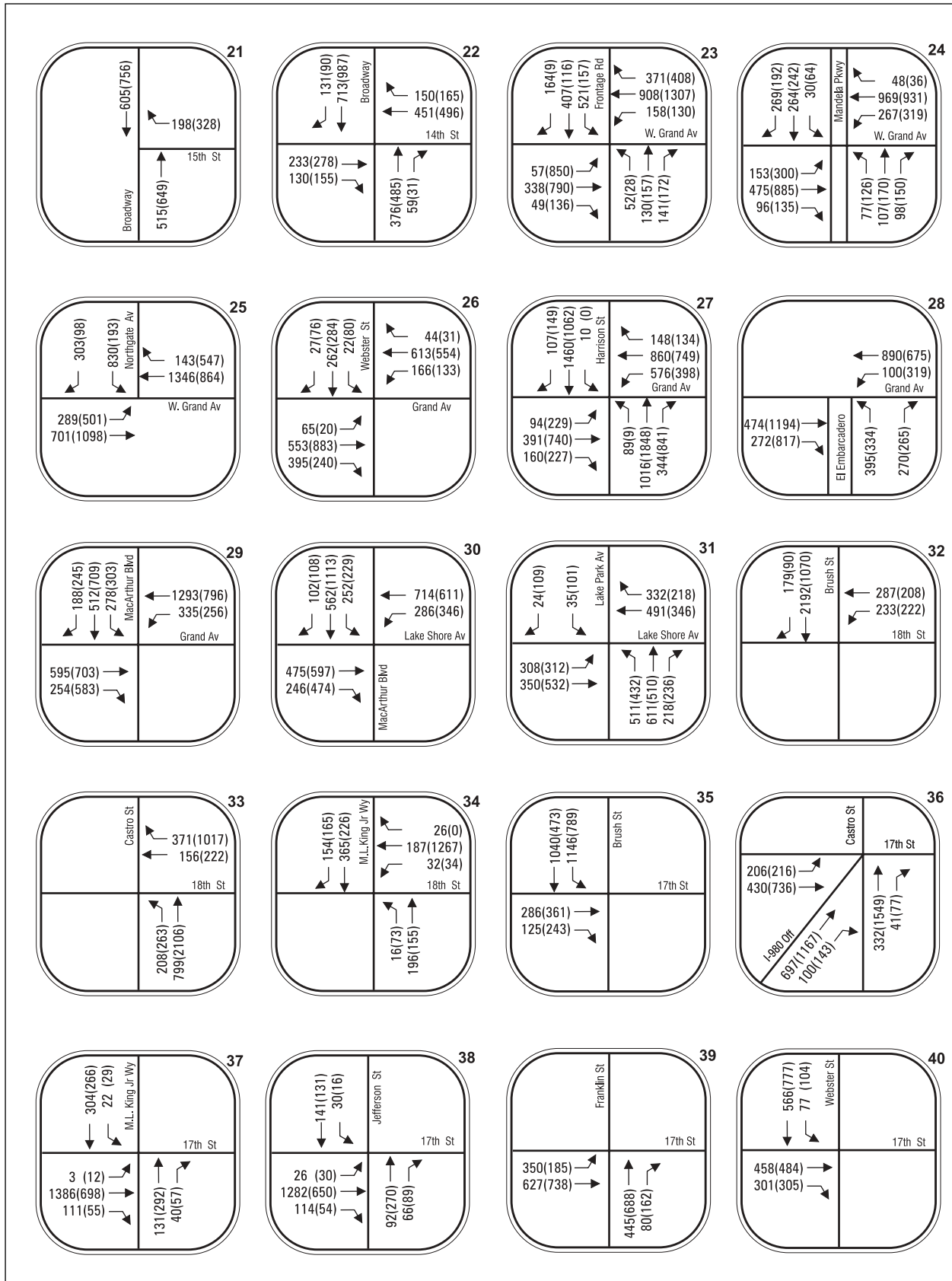


LSA



FIGURE IV.D-10a

Uptown Mixed Use Project EIR  
 Year 2025 Plus Project Traffic Volumes  
 AM (PM) Peak Hour

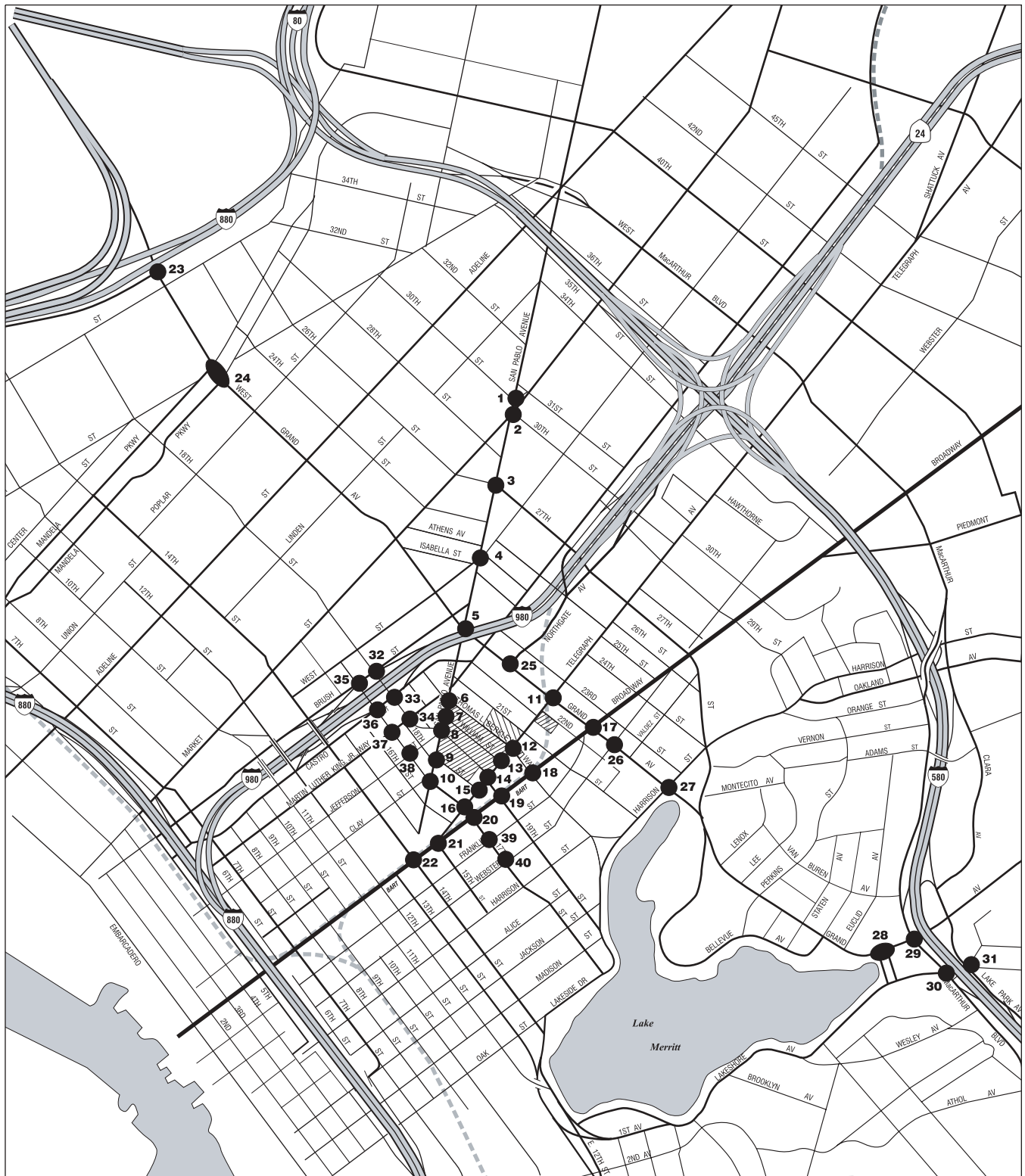


LSA



FIGURE IV.D-10b

Uptown Mixed Use Project EIR  
 Year 2025 Plus Project Traffic Volumes  
 AM(PM) Peak Hour

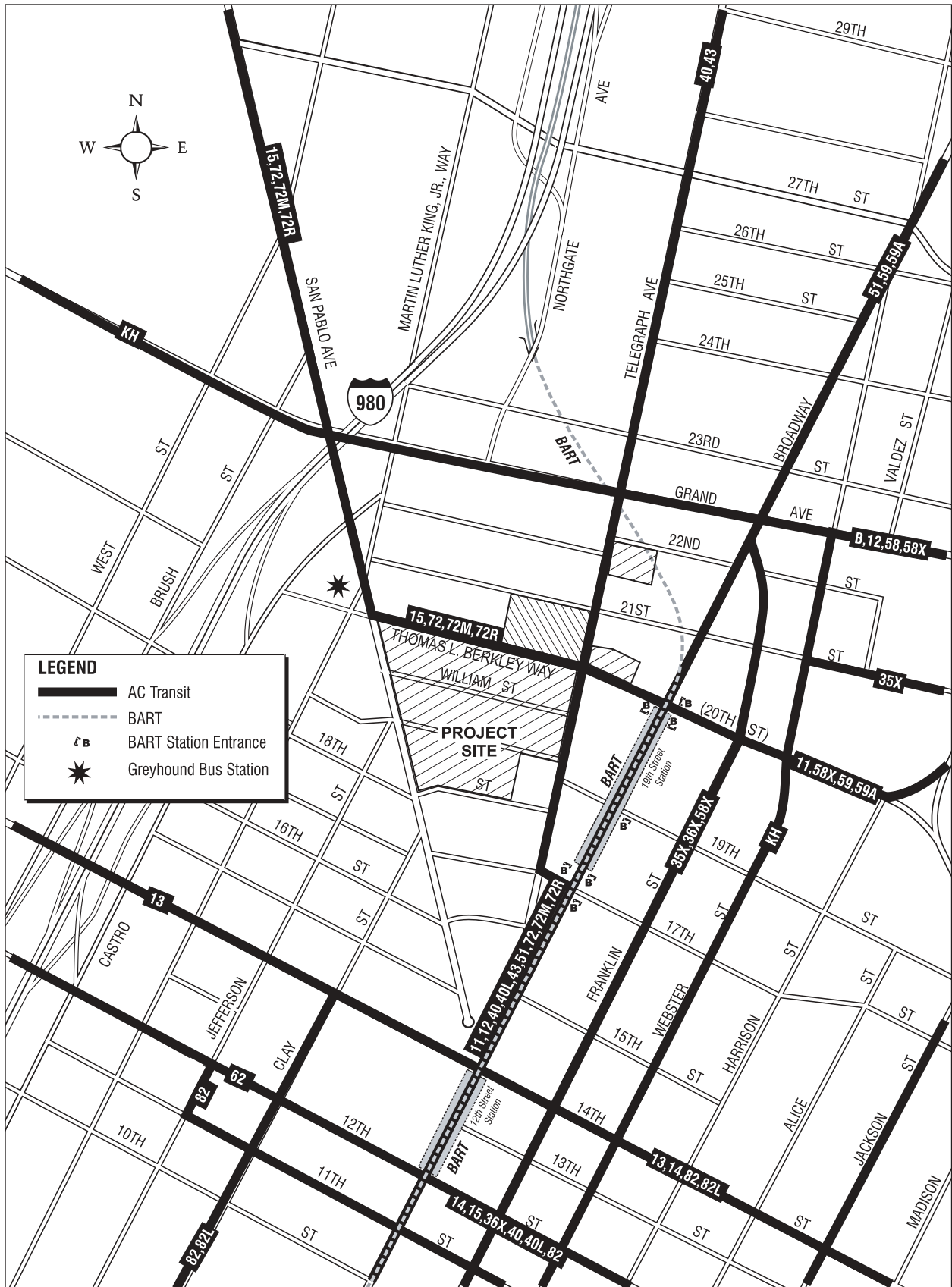


LSA

FIGURE IV.D-2

*Uptown Mixed Use Project EIR  
Study Intersections*





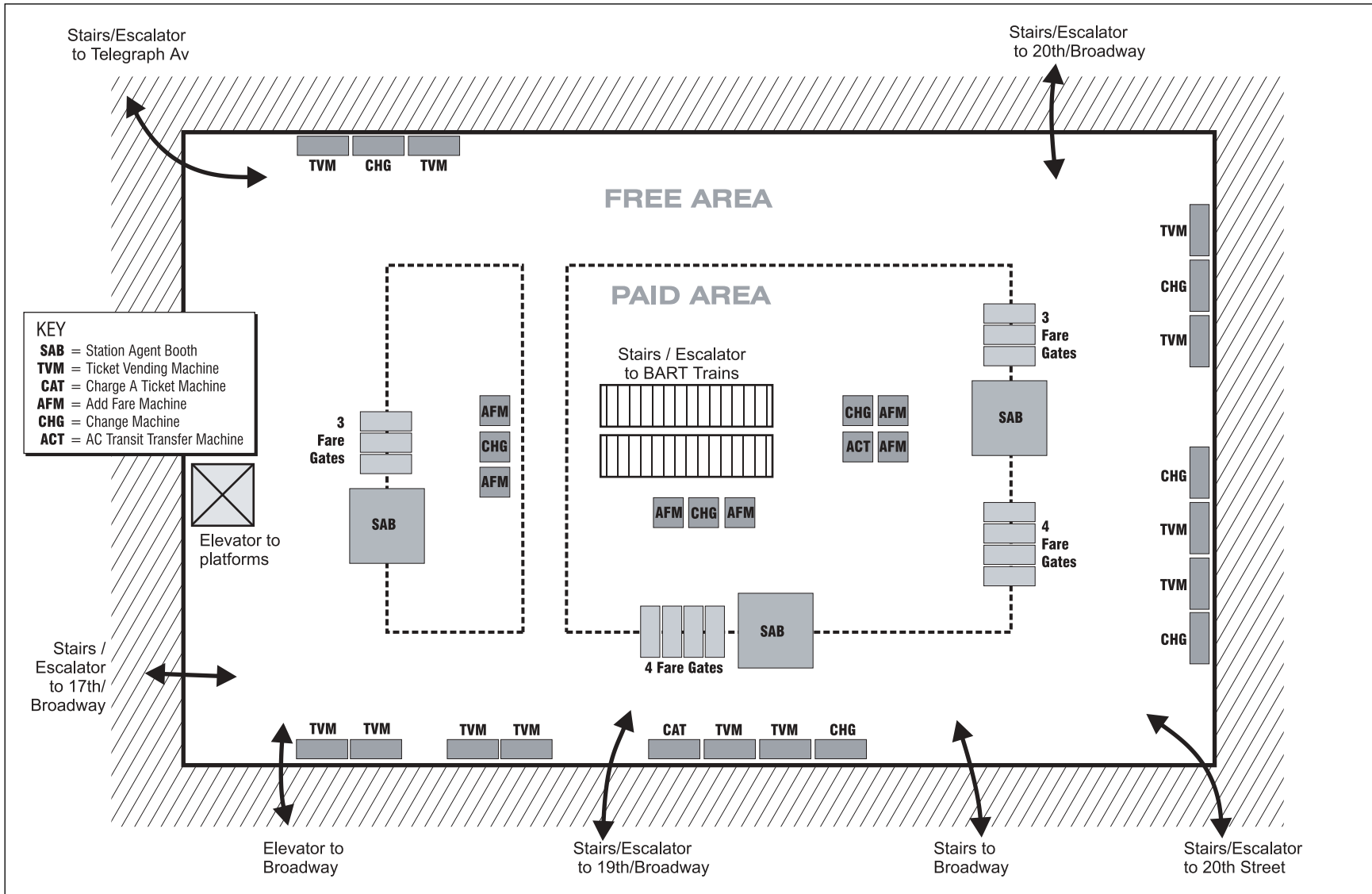
LSA

FIGURE IV.D-3

*Uptown Mixed Use Project EIR  
Existing Transit Network*

SOURCE: KORVE ENGINEERING, 2003

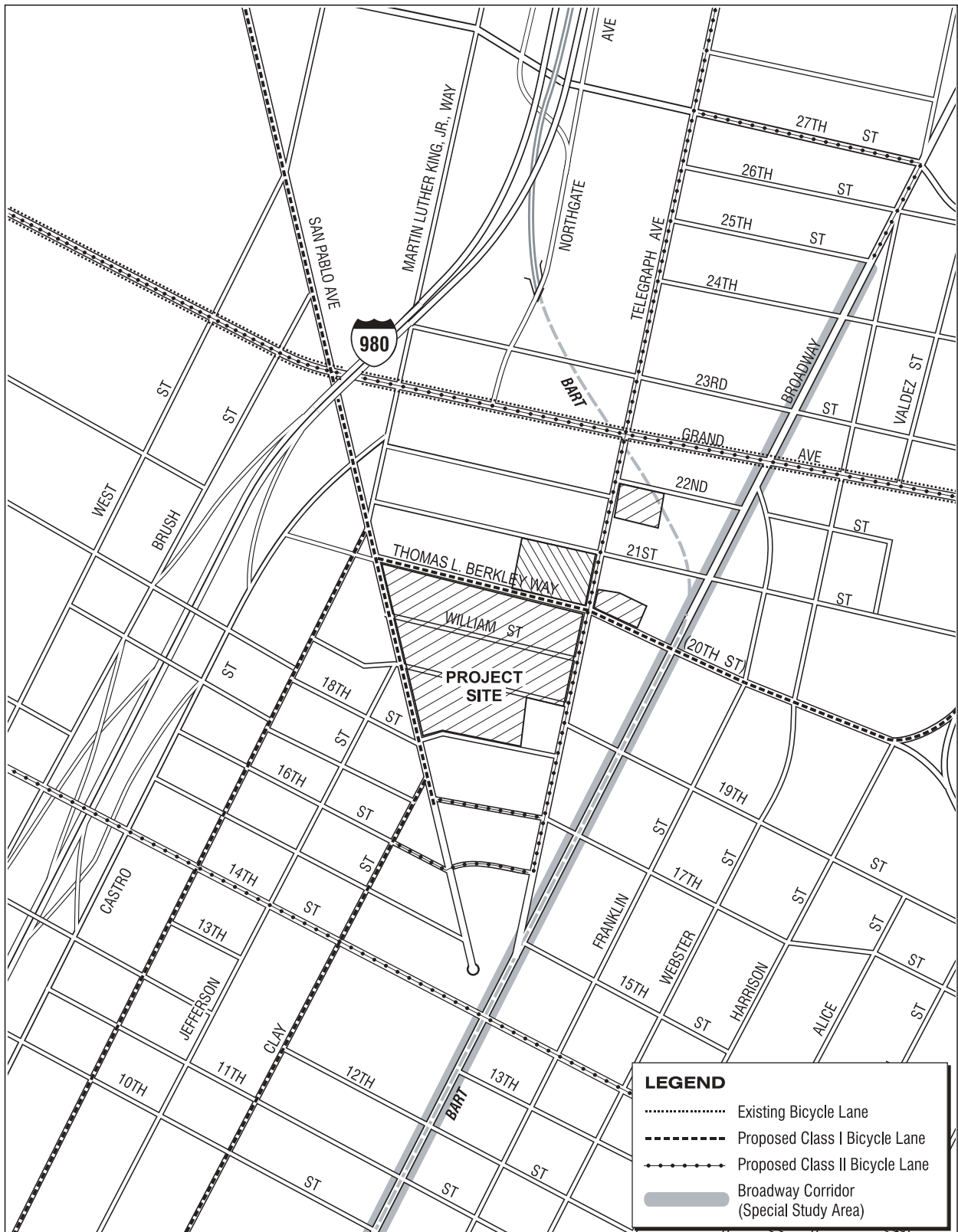
I:\IMAGES\GRAPHICS\JOBS\FCR230 UPTOWN\FIGURES\FIG\_IVD3.AI (09/10/03)



LSA

FIGURE IV.D-4

*Uptown Residential Project EIR*  
 19th Street BART Station Layout  
 Concourse Level

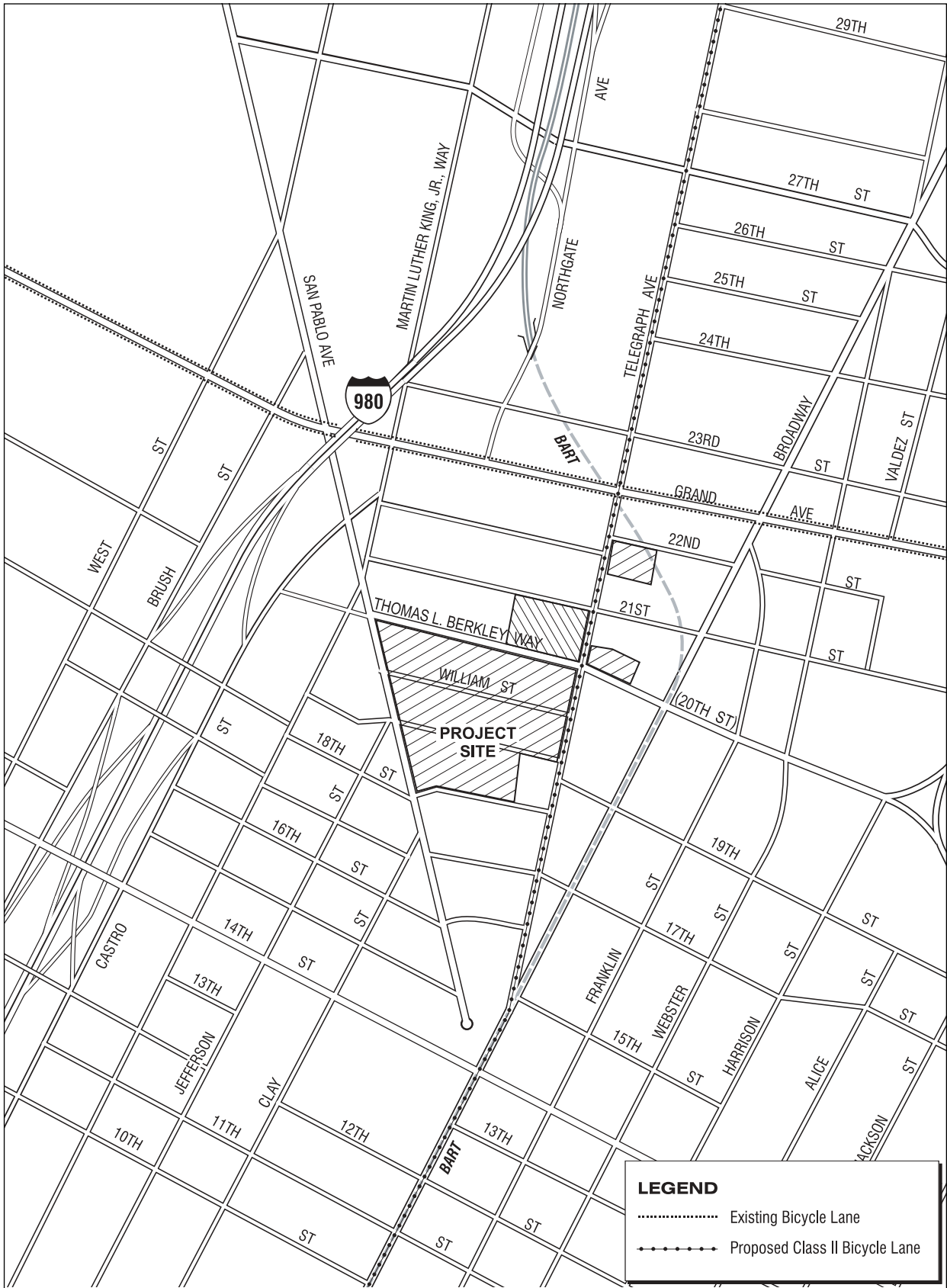


LSA

FIGURE IV.D-5

*Uptown Mixed Use Project EIR*  
 Existing and Proposed Bicycle Facilities  
 (Downtown Oakland Recommended  
 Bikeway Network)

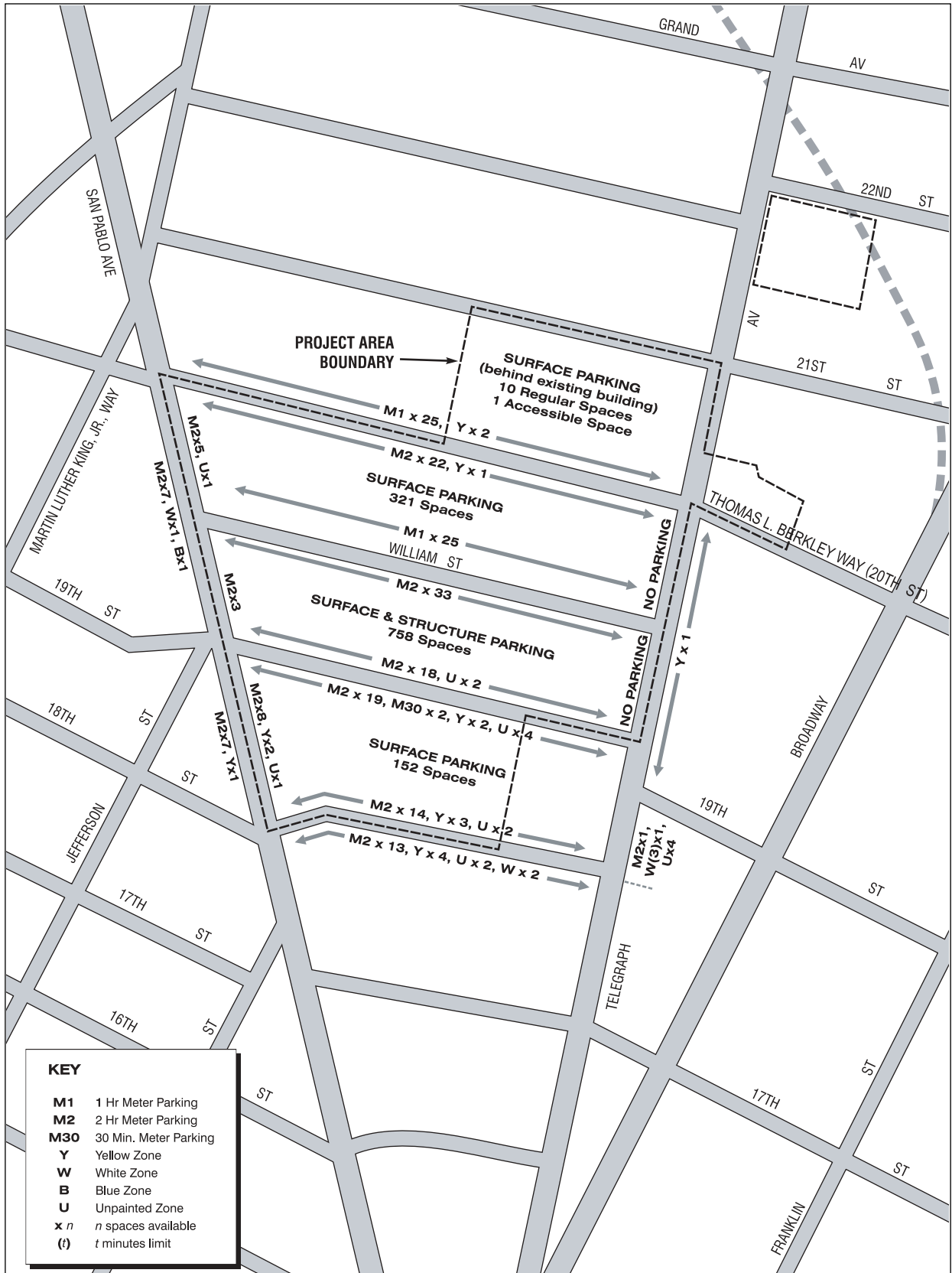




LSA

FIGURE IV.D-6

*Uptown Mixed Use Project EIR*  
 Existing and Proposed Bicycle Facilities  
 (Alameda Countywide Bicycle Program)



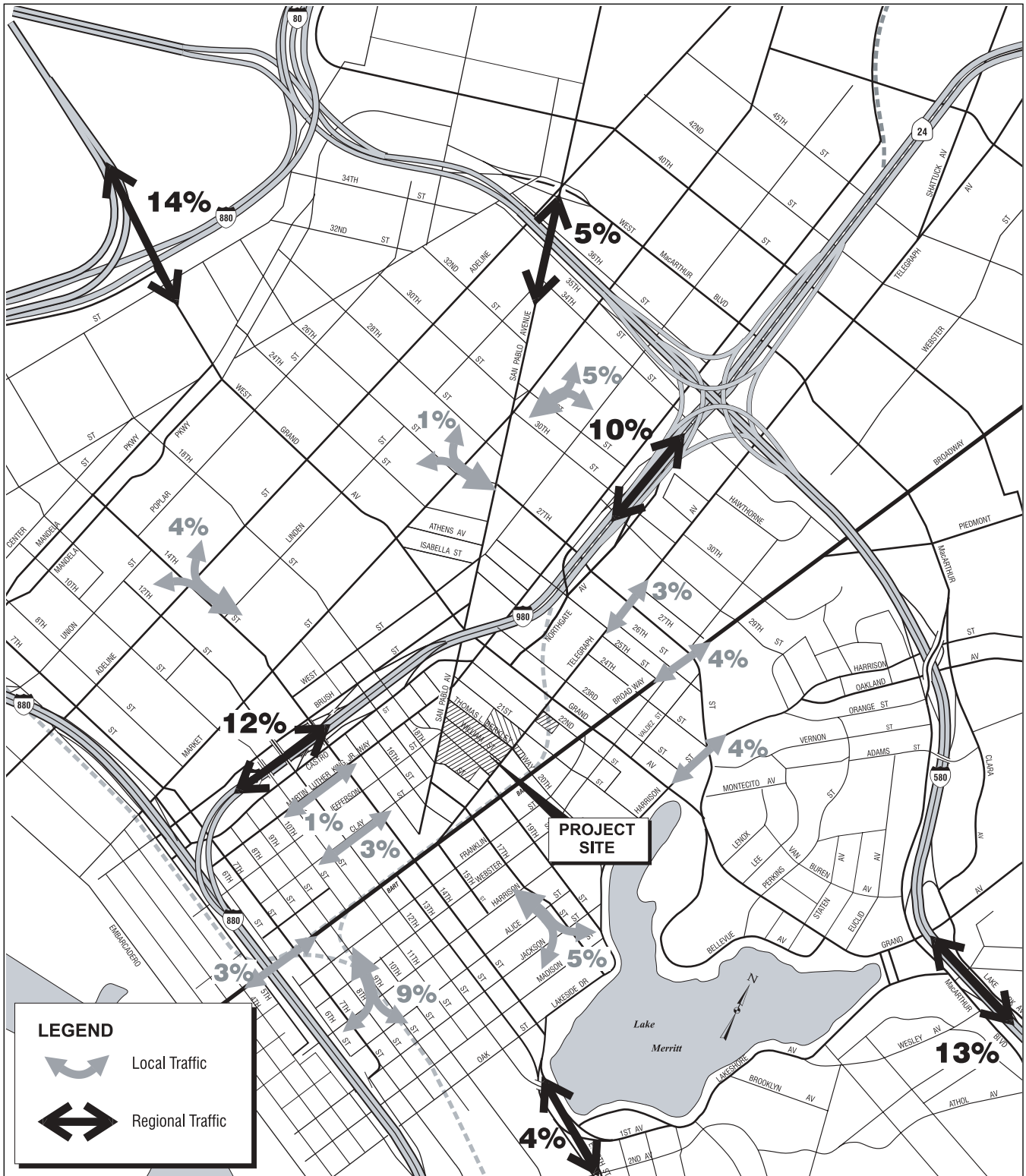
LSA

FIGURE IV.D-7



Uptown Mixed Use Project EIR  
Existing Parking Condition



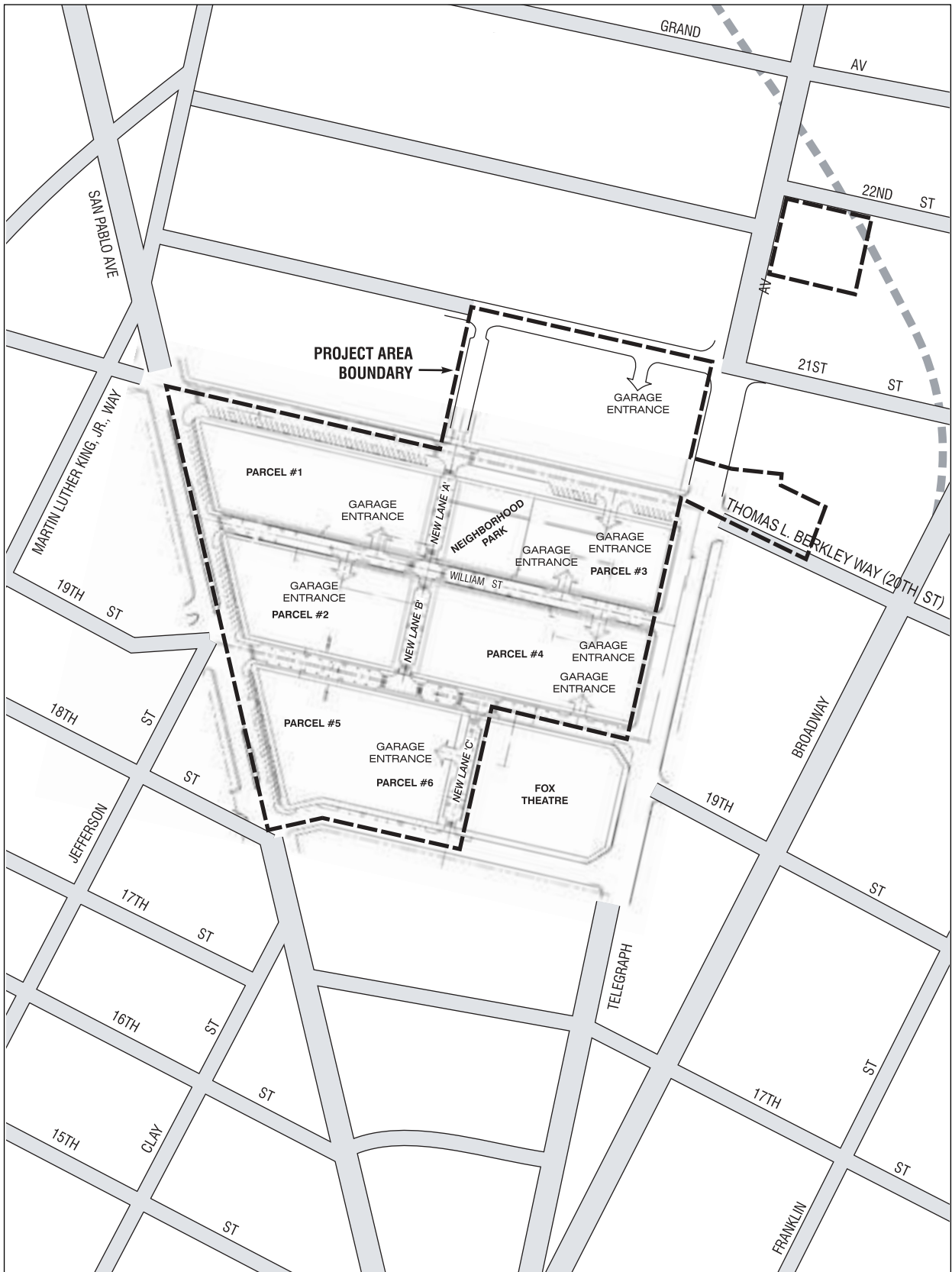


LSA

FIGURE IV.D-8

DATA SOURCE: ACCMA COUNTYWIDE  
TRANSPORTATION DEMAND MODEL

Uptown Mixed Use Project EIR  
Project Trip Distribution



LSA

FIGURE IV.D-9



Uptown Mixed Use Project EIR  
Site Access

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## **I. INTRODUCTION**

### **A. PURPOSE OF THE RESPONSES TO COMMENTS DOCUMENT**

This report has been prepared to respond to comments submitted on the September 2003 Public Review Draft Environmental Impact Report (Draft EIR) for the proposed Uptown Mixed Use Project (Project). In addition, Chapter II of this document describes changes that have been made to the proposed Project after publication of the Draft EIR, and environmental effects that could result from these changes. The Draft EIR identifies the likely environmental consequences associated with implementation of the proposed Project.

This document responds to comments on the Draft EIR and makes revisions to the Draft EIR, as necessary, in response to these comments, to clarify any previous errors, omissions, or misinterpretations of material in the Draft EIR, or as a result of City-initiated revisions. Comments and responses on the proposed Project will be presented to the City Council for discussion and approval.

### **B. FINAL EIR**

This document, together with the Draft EIR, constitutes the Final EIR for the proposed Project.

### **C. ENVIRONMENTAL REVIEW PROCESS**

According to CEQA, lead agencies are required to consult with public agencies having jurisdiction over a proposed project, and to provide the general public with an opportunity to comment on the Draft EIR.

On February 26, 2003, a Notice of Preparation (NOP) was issued. The Draft EIR was made available for public review on September 19, 2003 and distributed to the State Clearinghouse (with a Notice of Completion) and local and State responsible and trustee agencies. The general public was advised of the availability of the Draft EIR through a public notice of availability in the local newspapers. In addition, the project site was posted with notices of availability, and notices were sent to property owners within 300 feet of the Project site. CEQA mandates a minimum 45-day public comment period on the Draft EIR, which ended on November 3, 2003.

Copies of all written and verbal comments received on the Draft EIR during the comment period are contained in this report.

The Final EIR will be considered for certification by the Planning Commission in early 2004. The proposed Project, Final EIR, and all comments will be presented to the City Council, at which time the City Council will consider a recommendation from the Community and Economic Development Committee regarding the approval of the proposed Disposition and Development Agreement (DDA) for the Project. After the DDA is approved, the Project Sponsor will submit an application for planning entitlements. These entitlements may include: a General Plan Amendment and Rezoning to

accommodate the proposed public park; a Preliminary Development Plan for the Planned Unit Development of the entire Project; a Final Development Plan for each phase of the Project; a Major Conditional Use Permit for creation of a new park, and for demolition of a facility containing rooming units; Design Review; and a Subdivision Map.

## **D. DOCUMENT ORGANIZATION**

This Response to Comments document consists of the following chapters:

- *Chapter I: Introduction.* This chapter discusses the purpose and organization of this Final EIR.
- *Chapter II: Revisions to the Project Description.* This chapter describes changes made to the proposed Project after publication of the Draft EIR and the environmental impacts associated with these changes.
- *Chapter III: List of Commenting Agencies, Organizations, and Individuals.* This chapter contains a list of agencies, organizations, and individuals who submitted written comments or offered verbal comments on the Draft EIR.
- *Chapter IV: Comments and Responses.* This chapter contains reproductions of all comment letters received on the Draft EIR, as well as summaries of verbal comments offered on the document. A written response for each CEQA-related comment received during the review period is provided.
- *Chapter V: Draft EIR Text Revisions.* Corrections to the Draft EIR that are necessary in light of comments received and responses provided, or necessary to clarify any errors, omissions or misinterpretations, are contained in this chapter.
- *Chapter VI: Mitigation Monitoring and Reporting Program.* This chapter contains the mitigation monitoring and reporting program for the proposed project, based on the mitigation measures contained in the Final EIR.
- *Chapter VII: Report Preparation.* A summary of those involved in report preparation is provided in this chapter.

## **II. REVISIONS TO THE PROJECT DESCRIPTION**

Since publication of the Uptown Mixed Use Project Draft Environmental Impact Report (Draft EIR) in September 2003, the proposed Project has undergone a minor modification. This chapter describes recent minor changes to the proposed Project and evaluates the potential environmental impacts associated with these changes. This evaluation confirms that changes to the proposed Project would not result in any additional development or new significant environmental impacts (i.e., impacts not addressed in the Draft EIR). The total number of parking spaces, residential units, and commercial square footage that would be developed as part of the proposed Project (listed in Table III-1 of the Draft EIR) would not change as a result of these changes. These relatively minor modifications to the proposed Project are addressed briefly below.

### **A. REVISIONS TO THE PROJECT DESCRIPTION**

Revisions to the proposed Project include the removal of an existing parcel from the Project site and inclusion within the Project site of two new parcels (together comprising Block 8a) that are contiguous to existing Block 8, and the removal of the roadway between the Fox Theater and the Project site. Figure II-1 shows the revised block configuration within the Project site and surrounding land uses. Either Block 8 or Block 8a would be utilized as a relocation site for the Sears Auto Center. This relocation was included in the Draft EIR; therefore, the addition of Block 8a to the Project site would not change the overall development scenario evaluated in the Draft EIR.

#### **1. Removal of Block 9**

Block 9, which is bordered by 22<sup>nd</sup> Street to the north, parking uses to the east and south, and Telegraph Avenue to the west, is now no longer included in the Project site. Block 9, which currently contains the Giant Burger restaurant and associated parking, was previously proposed as the preferred relocation site for the Sears Auto Center. Sears Auto Center is currently located within Block 4 of the Project site. Block 9 was withdrawn from the Project site due to the potential acquisition of an alternate relocation site for the auto center.

#### **2. Inclusion of Block 8a**

The new parcels that would be added to the Project site (Block 8a) are bordered by 21<sup>st</sup> Street to the north, the Paramount Theater to the east, surface parking to the south, and Telegraph Avenue to the west. Block 8a is contiguous to Block 8. Block 8a currently contains two commercial buildings and associated surface parking. Blocks 8 and 8a are proposed as alternate relocation sites for the Sears Auto Center. As described on page 45 of the Draft EIR, the (relocated) Sears Auto Center would include approximately 10,000 square feet of retail space and 50 on-site parking spaces. The retail building is anticipated to be one-story in height. The auto center would be built on either Block 8 or Block 8a. Therefore, if Sears Auto Center is constructed on Block 8, no construction would occur on Block 8a; if the auto center is built on Block 8a, no construction would occur on Block 8. Relocation of the auto center to Block 8a would involve demolition of the two existing buildings within the block. The total number of parking spaces, residential units, and commercial square footage that

Figure II-1: Changes to the Project Site

8 x 11 B&W

would be developed as part of the proposed Project (listed in Table III-1 of the Draft EIR) would not change as a result of the addition of Block 8a to the Project site.

### **3. Elimination of Street Proposed Between Block 6 and the Fox Theater**

The 100-foot-wide street originally proposed between Block 6 of the Project site and the Fox Theater would be removed as part of the revisions to the proposed Project. However, the 50-foot-wide area immediately to the west of the Fox Theater would be retained for future loading and unloading activities.

## **B. POTENTIAL ENVIRONMENTAL IMPACTS OF DEVELOPMENT ON BLOCK 8A**

The following discussion describes the environmental impacts that could occur as a result of the inclusion of Block 8a into the proposed Project. No adverse environmental impacts would result from the exclusion of Block 9 from the Project site. As noted previously, this change to the proposed Project could only result in a change in location of the Sears Auto Center (the Sears Auto Center could be relocated to Block 8a); the overall buildout scenario, including the total amount of commercial space developed as part of the Project, would not change as a result of these changes to the proposed Project. This discussion is divided into the environmental topics that were addressed in detail in the Draft EIR.

### **1. Land Use**

The types of land use impacts (all of which are less than significant) that would occur as a result of revisions to the proposed Project are already addressed in the Draft EIR. Development of the Sears Auto Center on Block 8a would not impair travel from one side of the community to another or remove an existing means of access to public or private streets. Therefore, the inclusion of Block 8a into the Project site would not physically divide an existing community. No physical characteristics that would be associated with the auto center, such as car traffic and moderate levels of noise resulting from vehicle repair, would represent a fundamental conflict with surrounding land uses, including the Paramount Theater. The Paramount Theater is located in an urban mixed-use neighborhood and is surrounded by a variety of land uses. The auto center would not diminish the function of the Paramount Theater as an arts and entertainment venue. Auto-related uses are conditionally permitted within Block 8a, which is designated as Central Business District in the City of Oakland General Plan and Central Core Commercial (C-55) and Downtown Residential Space Combining Zone in the City of Oakland Planning Code. The development of an auto center on the site would not conflict with any land use plans or regulations.

### **2. Population, Employment and Housing**

Similar to the proposed Project as discussed in the Draft EIR, the inclusion of Block 8a into the Project site would not result in the development of housing and associated population growth. No housing units or permanent residents are currently located within the block. Therefore, revisions to the proposed Project would not displace housing units or people.

### **3. Hydrology and Water Quality**

Construction of the Sears Auto Center on Block 8a could result in environmental impacts that have already been identified in the Draft EIR, including degradation of water quality and extraction of contaminated dewatering effluent. The hydrology and water quality impacts resulting from the development of Block 8a would not be more severe than impacts associated with development of the auto center on Block 8. Block 8a is covered with impervious surfaces. Therefore, development of the auto center on the site would not interfere with groundwater recharge, alter flood patterns, or cause water-related erosion or siltation.

### **4. Transportation, Circulation and Parking**

Vehicular traffic and new bus and rail users that would be generated by the Sears Auto Center are already identified in the traffic and transit analysis included in the Draft EIR. Development of the Sears Auto Center on Block 8a would not result in more vehicle or transit trips, or in different traffic circulation patterns, than would be associated with the construction of the auto center on other portions of the Project site. In addition, construction on Block 8a would not create design hazards associated with a design feature. Standards for egress and ingress on the Project site would be subject to the same City standards as development on Block 8 and would not pose a safety risk to motor vehicles, pedestrians, or bicyclists.

### **5. Air Quality**

Moving the Sears Auto Center to Block 8a would not alter the air quality impacts associated with the proposed Project, which are discussed in the Draft EIR. As noted above, this change to the proposed Project would not increase the number of anticipated vehicular trips, nor would related construction-period air emissions vary from the proposed Project. Therefore, the development of the auto center on Block 8a would not result in the emission of additional pollutants that were not accounted for in the Draft EIR.

### **6. Noise**

Construction-period and operational noise impacts that could result from the development of the Sears Auto Center on Block 8a are already addressed in the Draft EIR. This revision to the proposed Project would not expose sensitive receptors to unacceptable levels of noise. Noise generated by the Sears Auto Center on Block 8a is anticipated to be similar to noise generated at other auto-oriented businesses in Downtown Oakland. In general, such businesses result in moderate daytime noise levels associated with the movement of motor vehicles and mechanical work on vehicles. These moderate noise levels would not affect the functioning of the Paramount Theater as a performing arts venue. The Paramount Theater contains interior insulation to reduce exterior noise, and generally hosts events during the evening, after operations at the auto center would cease for the day.

### **7. Hazards and Hazardous Materials**

It is anticipated that Block 8a contains soil and groundwater contamination that could pose a threat to construction workers and the general public. In addition, the existing buildings on the Block were built prior to 1980 and are expected to contain lead and asbestos. Therefore, development of the Sears Auto Center on Block 8a could release hazardous materials into the environment. However, these same impacts and associated mitigation measures are addressed in the Draft EIR. The

implementation of mitigation measures in the Draft EIR would reduce hazards-related impacts from development of Block 8a to a less-than-significant level.

## **8. Utilities and Infrastructure**

Construction of the Sears Auto Center on Block 8a would not increase the amount of commercial space or parking that would be developed as part of the proposed Project. Therefore, no additional water and energy consumption or wastewater and solid waste generation would occur as a result of changes to the proposed Project. The utilities and infrastructure impact analysis in the Draft EIR is unchanged by the addition to the Project site of Block 8a. The utility lines that would serve Block 8a have adequate capacity to accommodate wastewater and water needs associated with the auto center.

## **9. Historic Architectural, Archaeological and Paleontological Resources**

The two buildings within Block 8a are not listed on the City of Oakland's Local Register of Historic Resources and are not considered historic resources pursuant to CEQA because they do not meet the applicable criteria. The two buildings within the block are located at the following addresses: 2022 Telegraph Avenue and 2040 Telegraph Avenue. The one-story structure located at 2022 Telegraph Avenue was constructed in 1948 and has not been rated by the Oakland Cultural Heritage Survey (OCHS). Although this building is older than 50 years old, staff from the OCHS has indicated that the structure does not meet the standards for historic resources, pursuant to *CEQA Guidelines* section 15064.5.<sup>1</sup> The two-story building located at 2040 Telegraph Avenue was constructed in 1960 and also does not meet CEQA criteria for a significant historic resource. Therefore, the demolition of these buildings would not adversely affect historic architectural resources. Similar to the rest of the Project site, ground-disturbing activities associated with construction of the Sears Auto Center on Block 8a could adversely affect unidentified cultural resources. However, this impact is addressed in the Draft EIR. Mitigation measures recommended in the Draft EIR would reduce this potential impact to a less-than-significant level. The surroundings of the Paramount Theater have been substantially altered since its construction. Therefore, although development of the auto center on Block 8a would alter the architectural context of the Paramount Theater, it would not substantially affect the historic integrity of the theater or the theater's eligibility for listing on the California Register of Historic Resources.

## **10. Aesthetic Resources**

Revisions to the proposed Project would not result in new aesthetic resources-related impacts that are not already addressed in the Draft EIR. Block 8a contains no scenic vistas or scenic resources. The block is currently characterized by surface parking and commercial land uses. The development of the auto center and ancillary parking would result in the construction of land uses that are similar to those that currently exist within the block. Therefore, this revision to the proposed Project would not result in a substantial adverse impact to the visual character of the site. Implementation of Mitigation Measures AES-1 and AES-2 in the Draft EIR would ensure that the visual quality of the auto center is consistent with surrounding uses, and that the building would not generate a substantial amount of light and glare.

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<sup>1</sup> Marvin, Betty, 2003. Planner III, City of Oakland Community and Economic Development Agency. Personal communication with LSA Associates, Inc. December 19.



## **11. Wind**

The Sears Auto Center is expected to be approximately one story high and would therefore not substantially increase wind speeds in Downtown Oakland. No new wind-related impacts would result beyond those already addressed in the Draft EIR.

## **12. Shade and Shadow**

Because the Sears Auto Center is expected to be approximately one story high, it would not cast new shadow on the Paramount Theater or other surrounding uses. The theater is already subject to shadow from the two existing buildings within Block 8a. No new shade and shadow-related impacts would result beyond those already addressed in the Draft EIR.

## **C. SUMMARY**

The inclusion of Block 8a into the Project site, and the potential use of this block for the relocation of the Sears Auto Center, would not result in new or more severe significant environmental impacts that have not been addressed in the Draft EIR. The block contains no identified historic resources or other environmental factors that could be substantially damaged by development activities. The Sears Auto Center is already accounted for in the buildout scenario of the proposed Project. Therefore, this revision to the proposed Project would not increase the amount of development that would occur as part of Project implementation. Similarly, the removal of Block 9 would not lead to any adverse effects.

### **III. LIST OF COMMENTING AGENCIES, ORGANIZATIONS AND INDIVIDUALS**

Written comments were submitted to the City of Oakland during the public review period on the Draft EIR by the following agencies, organizations and individuals. The comments are grouped by the affiliation of the commenting entity as follows: (A) federal, State, regional, and local agencies; (B) organizations; (C) individuals; and (D) public hearing commentators. The comment letters are listed alphabetically by commentor within each section.

#### **A. FEDERAL, STATE, REGIONAL, AND LOCAL AGENCIES**

- A1 AC Transit; Kathleen Kelly, Deputy General Manager, Service Development Department; November 3, 2003
- A2 City of Alameda, Gregory Fuz, Planning and Development Director, November 3, 2003  
*(Note: This letter was received by the City of Oakland via fax on November 12, 2003, nine days following the close of the public comment period.)*
- A3 Alameda County Congestion Management Agency; Diane Stark, Senior Transportation Planner; November 3, 2003
- A4 East Bay Municipal Utility District; William R. Kirkpatrick, Manager of Water Distribution Planning; November 3, 2003

#### **B. ORGANIZATIONS**

- B1 Chinese Historical Society of America; Lorraine Dong, Ph.D., President/CEO; November 3, 2003
- B2 Lakeside Apartment Neighborhood Association; Cynthia L. Shartzter, Co-Chair; November 3, 2003
- B3 Oakland Chinatown Coalition; Jennie Ong, Oakland Chinatown Chamber of Commerce and Sherry Hirota, Asian Health Services; November 3, 2003
- B4 Oakland Heritage Alliance; Naomi Schiff, Vice President – Preservation Action; November 3, 2003
- B5 Sierra Club, Northern Alameda Regional Group; Joyce Roy, Co-Chair, Conservation Committee and William J. Smith, Co-Chair, Conservation Committee; November 3, 2003
- B6 Urban Ecology; Nathan James; November 3, 2003

**C. INDIVIDUALS**

- C1 Chungkei Tony Fung, Owner, The Autohouse Car Repair; October 31, 2003
- C2 Colland Jang, City of Oakland Planning Commissioner; November 3, 2003
- C3 Shamir K. Mondle, P.E., Chief Engineer/Member, SKM Consulting Engineers LLC; November 3, 2003
- C4 Nancy J. Nadel, Vice Mayor, City Council District 3; November 3, 2003
- C5 Anna Naruta, Historical Archaeologist; November 2, 2003
- C6 John M. Revelli, Owner, Revelli Tire Company; October 31, 2003
- C7 William Roop, Partner, Archaeological Resource Service; November 3, 2003
- C8 Howard Wong, AIA; October 31, 2003
- C9 Ann G. Yee; November 3, 2003

**D. PUBLIC HEARING COMMENTS**

- D1 Comments offered at the City of Oakland Planning Commission Public Hearing for the Uptown Mixed Use Project, October 15, 2003

John Revelli

Chung Kei

Tony Fung

Julia Liou

Anna Naruta

Erin Beales

Steve Lowe

Joyce Roy

Naomi Schiff

John Chapman

Sanjiv Handa

Anne Mudge

Mark McClure

Colland Jang

Michael Lighty

Nicole Franklin

Clinton Killian

D2 Comment letter from the Landmarks Preservation Advisory Board, October 21, 2003

Board Member Dreyfuss

Board Member Bliss

Board Member Armstrong

Board Member Hooks

Board Member Gilmartin

Naomi Schiff

Anna Naruta

D3 Comments offered at the Landmarks Preservation Advisory Board, November 3, 2003

Anna Naruta

Steve Lowe



## IV. COMMENTS AND RESPONSES

This chapter includes a reproduction of each comment letter submitted or verbal comment offered during the public comment period on the Draft EIR, grouped by the affiliation of the commenting entity as follows: (A) federal, State, regional and local agencies; (B) organizations; and (C) individuals. Individuals who spoke at the Public Hearing before the Planning Commission, or the two meetings of the Landmarks Preservation Advisory Board are included in group (D). The comments are numbered consecutively following the A, B, C, or D designation. The letter number (for example A1, the first agency comment letter) is shown in a box in the upper right-hand corner of each page of the letter. Specific comments on the Draft EIR are annotated in the margin of each letter according to the following code:

Federal, State, Regional, and Local Agencies:	Letter Number A# and Comment #
Organizations:	Letter Number B# and Comment #
Individuals:	Letter Number C# and Comment #
Public Hearing Comments	D# and Comment #

When cross-referenced in the text, the comment is referred to as A#-# where the number following the letter refers to the comment letter number, and the number following the hyphen refers to the comment number within that letter. For example, comment C5-8 refers to the eighth comment within the fifth letter submitted by an individual.

Persons who had a comment on the Draft EIR during the public hearing or Landmarks Preservation Advisory Board meetings are listed in Section D, in order of appearance at the hearings.

Letters received during the public comment period on the Draft EIR are provided in their entirety in the following pages. Each letter is immediately followed by responses keyed to the specific comments.

Comments on the Draft EIR addressed a variety of topical areas. However, a large number of comments focused on two specific issues: (1) the potential of the Project site to contain unidentified cultural resources, especially archaeological resources associated with a historic Chinatown community that may have been located on or near the Project site; and (2) impacts associated with the displacement of businesses, specifically small businesses, from the Project site. In order to consolidate responses to questions and comments on each of these topics, and to address these concerns comprehensively, two master responses are provided below. Master Response M-1 discusses comments regarding unidentified cultural resources that could be uncovered within the Project site; Master Response M-2 discusses comments regarding the displacement of businesses from the Project site.

## **MASTER RESPONSE M-1**

### **Unidentified Cultural Resources within the Project Site**

Page 213 of the Draft EIR identifies two types of archaeological deposits that could be uncovered within the Project site during the construction period: (1) prehistoric deposits (i.e., deposits associated with native tribes living in the Bay Area prior to European settlement); and (2) historic deposits (i.e., deposits associated with settlement of the area). Based on a preliminary archaeological resources sensitivity assessment, it was determined that the Project site has a low-to-moderate likelihood of containing *prehistoric* archaeological deposits and a high likelihood of containing *historic* archaeological deposits (as stated in the last paragraph on page 213 of the Draft EIR). The following discussion addresses questions and comments offered in regard to the Draft EIR in each of these areas.

#### **Prehistoric Resources**

The Draft EIR includes the results of background research to identify: (1) recorded prehistoric cultural resources within and adjacent to the Project site; and (2) the potential for unidentified prehistoric cultural resources within or adjacent to the Project site. This background research included a records search at the Northwest Information Center at Sonoma State University, Rohnert Park, California, which is the official state repository of cultural resource records and reports for Alameda County; and a review of environmental, ethnographic, and historical literature. Based on the results of the background research, it was determined that, as described above, there is a low-to-moderate likelihood that the Project site contains prehistoric archaeological resources. It was determined, however, that such resources, if they exist, may be impacted by Project-related activities, resulting in a potentially significant impact. Mitigation Measures HIST-2 and HIST-3 in the Draft EIR have been successfully used on numerous similar occasions throughout California to reduce impacts to prehistoric resources to a less-than-significant level. These measures would require a pre-construction program be developed and implemented to help better identify the extent that unique resources may exist on the Project site and avoidance or mitigation (as specified in *CEQA Guidelines* section 21083.2) of any unique resources that are encountered as part of the project. Thus, the authors have used a conservative approach by specifying and recommending two mitigation measures that would be triggered should unique archaeological resources be identified during project implementation.

#### **Historic Resources**

The analysis in the Draft EIR identified potentially significant Project-related impacts to historic archaeological resources based on the significance criteria established by the City of Oakland. This analysis addresses the possibility that the proposed Project could adversely affect potentially significant archaeological remains associated with the historic Chinese settlement that may have been located within or in the vicinity of the Project site. The fourth paragraph on page 214 of the Draft EIR references research indicating that a Chinese neighborhood existed on the east side of San Pablo Avenue between 19<sup>th</sup> Street and Thomas L. Berkley Way (20<sup>th</sup> Street) in the 1870s. The Draft EIR identifies potential impacts to archaeological remains associated with this settlement as significant, and recommends mitigation measures to reduce this potential impact to a less-than-significant level should any significant resources be encountered during project construction.

Page 220 of the Draft EIR (Impact and Mitigation Measure HIST-2) has been revised to more specifically address some of the concerns raised, especially those comments on the Draft EIR that

assert the possible presence of a historic Chinese settlement at or near the Project site. The revisions include a provision that requires consultation with established Chinese-American community groups in regard to treatment of any identified significant archaeological resources. The revisions to the Draft EIR specifically provide additional discussion related to: (1) the presence of a historic Chinese settlement along San Pablo Avenue between 19<sup>th</sup> and 20<sup>th</sup> Streets; (2) the potential that significant archaeological deposits that are associated with Chinese settlement may be identified within the Project site; 3) the forced upheavals and discrimination that characterized the Chinese-American experience in much of California in the late 1800s; and 4) that significant archaeological resources, such as back-filled privies and wells, may be uncovered within the site.

Page 220 of the Draft EIR is revised as shown below:

**Impact HIST-2: Ground disturbing activities for the construction of subterranean parking structures, building foundations, and underground sewer and utility facilities could adversely impact cultural resources. (S)**

~~Native Americans are known to have occupied and used the Project area vicinity, and in the historical American period residential and commercial use of all portions of the Project area was intensive and varied. These activities may have resulted in unidentified archaeological deposits that may qualify as historical or unique archaeological resources under CEQA. Project related ground disturbing activities may potentially disturb these deposits, which may result in a significant adverse effect to historical or archaeological resources under CEQA. Mitigation measures can reduce these effects to less than significant levels.~~ Native Americans are known to have occupied areas in the vicinity of the Project site. In the historical American period, residential and commercial use of all portions of the Project site was intensive and varied. A historical Chinese community has been documented on the east side of San Pablo Avenue, northeast of the intersection of 20<sup>th</sup> and San Pablo Avenues, and east of San Pablo Avenue between 19<sup>th</sup> and 20<sup>th</sup> Avenues. These areas of the documented Chinese community are within or near the Project site. There is a high potential for Project ground-disturbing activities to encounter archaeological deposits associated with the remains of the Chinese community. These deposits could be significant for their association with early Chinese-American history in Oakland and other urban West Coast settings. These deposits, if intact, may contain information about the economic, social, and religious lifeways of a Chinese-American community in an era in which the Chinese in California were subjected to de facto and institutional displacement, discrimination, and oppression. These conditions often resulted in only minimal documentation of lifeways, which increases the information value of archaeological deposits.

If encountered during ground disturbing activities, these deposits may qualify as historic or unique archaeological resources pursuant to CEQA Guidelines section 15064.5 and CEQA section 21083.2, respectively. Disturbance of historic or unique archaeological resources could be considered a significant impact. The following two-part mitigation measure would reduce these potential impacts to less-than-significant levels. The purpose of this expanded mitigation measure is to: (1) identify historic or unique archaeological resources prior to the start of ground-disturbing Project activities; and (2) assess the likelihood that Project activities could adversely affect potentially significant



deposits, and take the steps necessary to protect and treat the resources so the impact is decreased to a less-than-significant level. Implementation of this mitigation strategy will also help avoid unnecessary delays in site preparation and construction.

Mitigation Measure HIST 2: A qualified archaeologist<sup>+</sup> shall monitor all ground-disturbing activities in the Project area until, in the archaeologist's opinion, a depth has been reached at which potentially significant archaeological deposits are unlikely to occur.

Should an archaeological deposit be encountered by Project activities, the monitor shall be empowered to halt construction in the vicinity of the find. Construction activities shall be redirected and a qualified archaeologist shall: 1) evaluate the archaeological deposit to determine if it meets the CEQA definition of a historical or archaeological resource; and 2) make recommendations about the treatment of the deposit, as warranted. If the deposit does not meet the CEQA definition of a historical or archaeological resource, then no further study or protection of the deposit is necessary. If the deposit does meet the CEQA definition of a historical or archaeological resource, then it shall be avoided by Project activities. If avoidance is not feasible, then effects to the deposit shall be mitigated through a data recovery strategy developed by the evaluating archaeologist. Mitigation of impacts to significant archaeological deposits through data recovery will recover scientifically valuable information. This mitigation may include, but is not limited to, a thorough recording of the resource on DPR Form 523 records, or archaeological excavation. If archaeological excavation is the only feasible method of data recovery, then such excavation shall conform to the provisions of CEQA Guidelines §15126.4(b)(3)(C).

Mitigation Measure HIST-2a: A pre-construction archaeological testing program shall be implemented to help identify whether historic or unique archaeological resources exist within the Project site. Examples of potential historic or unique archaeological resources that could be identified within the Project site include: back-filled wells; basements of buildings that pre-date Euro-American buildings that were constructed on the Project site; and backfilled privies. For these resources to be considered significant pursuant to CEQA, they would have to have physical integrity *and* meet at least one of the criteria listed in *CEQA Guidelines* section 15064.5(a)(3) (for historic resources) and/or CEQA section 21083.2(g) (for unique archaeological resources). These criteria include: association with events that have made a significant contribution to the broad patterns of California history and cultural heritage; association with the lives or persons important in our past; embodiment of the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; yield, or may likely yield, information important in prehistory or history; contains information needed to answer important scientific research questions and be subject to a demonstrable public interest in that

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<sup>+</sup> "Qualified" is defined as meeting the professional standards established by the Secretary of the Interior. These standards can be found at: <http://www2.cr.nps.gov/laws/ProfQual83.htm>.

information; have a special and particular quality such as being the oldest of its type or the best available example of its type; or be directly associated with a scientifically recognized important prehistoric or historic event or person.

The testing program, in conjunction with a sensitivity study,<sup>2</sup> shall use a combination of subsurface investigation methods (including backhoe trenching, augering, and archaeological excavation units, as appropriate). The purpose of the testing program is to: (1) identify the presence and location of potentially-significant archaeological deposits; (2) determine if such deposits meet the definition of a historical resource or unique archaeological resource under section 21083.2(g) of the CEQA statutes; (3) guide additional archaeological work, if warranted, to recover the information potential of such deposits; and (4) refine the archaeological monitoring plan.

If historic or unique archaeological resources associated with the Chinese community are identified within the project site and are further determined to be unique, the City shall consult with representatives of an established local Chinese-American organization regarding the potential use of the archaeological findings for interpretive purposes.

Mitigation Measure HIST-2b: Archaeological monitoring of ground-disturbing construction in the Project area shall be conducted, as appropriate and if necessary, based on the results of the pre-construction testing program and the potential for encountering unidentified archaeological deposits. Upon completion of the pre-construction testing program specified in Mitigation Measure HIST-2a, the extent of archaeological monitoring during Project construction will be assessed, and the scope and frequency of the monitoring required by this mitigation measure shall be based on the findings of this assessment. Monitoring shall be conducted by a cultural resource professional approved by the City who meets the Secretary of the Interior's Professional Qualifications Standards for Prehistoric and Historical Archaeology.

Should an archaeological deposit be encountered during Project activities, the City in consultation with the monitor shall halt construction in the vicinity of the find. Construction activities shall be redirected and a qualified archaeologist in consultation with the City shall: (1) evaluate the archaeological deposit to determine if it has the potential to meet the CEQA definition of a historical or unique archaeological resource; and (2) make recommendations about the treatment of the deposit, as warranted. If the deposit does not meet the CEQA

---

<sup>2</sup> A cultural resources sensitivity study is done to assess the possibility of cultural resources at a specific location. The sensitivity study typically entails a review of: (1) the locations of known cultural resources in the general vicinity, (2) the records documenting the resources, (3) the nature of those resources, (4) the environmental setting of the location being analyzed, and (5) the historical documentation of the location being analyzed. Based on this information an assessment is made as to whether there is a low, moderate, or high probability of a cultural resource at the specific location in question. For example, if most of the prehistoric sites in an area are on level land, adjacent to the mouth of a creek where it enters a marsh, and the location being analyzed has no water nearby and is on very steep slope, there is a low probability of a prehistoric archaeological site. Or, if historical documents indicate that there have been a variety of buildings and land uses at the location being analyzed, there is a high probability of historical archaeological sites at the location.

definition of a historical or unique archaeological resource, then no further study or protection of the deposit is necessary. If the deposit does meet the CEQA definition of a historical or unique archaeological resource, then it shall be avoided to the extent feasible by Project activities. If avoidance is not feasible, then adverse effects to the deposit shall be mitigated as specified in CEQA section 21083.2. This mitigation may include, but is not limited to, a thorough recording of the resource on DPR Form 523 records, or archaeological data recovery excavation. If data recovery excavation is warranted, CEQA Guidelines section 15126.4(b)(3)(C), which requires a data recovery plan prior to data recovery excavation, shall be followed. If the significant identified resources are unique archaeological resources, mitigation of these resources shall be subject to the limitations on mitigation measures for unique archaeological resources identified in CEQA sections 21083.2(c) through 21083.2(f).

Upon completion of such archaeological monitoring, evaluation, or data recovery mitigation, the archaeologist shall prepare a report documenting the methods, results, and recommendations of the investigation, and submit this report to the NWIC. Public displays of the findings of archaeological recovery excavation(s) of historical or unique resources shall be prepared. As appropriate, brochures, pamphlets, or other media, shall be prepared for distribution to schools, museums, libraries, and – in the case of Chinese-American archaeological deposits – Chinese-American organizations. (LTS)

## **MASTER RESPONSE M-2**

### **Displacement of Small Businesses From the Project Site**

Implementation of the proposed Project would result in the displacement of several businesses from the Project site and the development of approximately 43,000 square feet of commercial space within the Project site. The City would provide assistance to businesses and tenants that would be relocated as a result of the proposed Project, in accordance with State Redevelopment Law. In addition, the Project's effects on small businesses will be considered by decision-makers when they review the merits of the Project. The Draft EIR states (see page 74) that there are approximately 247 jobs provided by current uses within the Project site. It is anticipated that the existing jobs on the Project site would be relocated within the proposed commercial space wherever feasible, and other jobs would be relocated within the Project vicinity or the greater City of Oakland.

Business relocations do not fall under the definition of environmental impacts in CEQA and therefore are not required to be discussed in detail in the Draft EIR. *CEQA Guidelines* section 15064 states: "Economic or social changes resulting from the Project shall not be treated as significant effects on the environment." In addition, *CEQA Guidelines* section 15131 indicates that the socioeconomic effects of a project should not be considered significant environmental impacts in and of themselves: "Economic effects of a project shall not be treated as significant effects on the environment. An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the Project to physical changes caused in turn by the economic or social changes. The intermediate economic or social changes need not be analyzed in

any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the physical changes.”

At the time of this report and as analyzed in the Draft EIR, environmental impacts that would result from the relocation of businesses from the Project site, based on the information available, are remote and speculative. In short, there is not a clear chain of cause and effect that connects the relocation of businesses to definite environmental impacts, such as traffic, air pollution, or the destruction of wildlife habitat. Additionally, given the availability of commercial space in Oakland and the number of businesses potentially displaced by the project, it is reasonable to conclude that most businesses will relocate to existing available commercial space. Therefore, the relocation of businesses, including small businesses, from the Project site, is not considered a significant environmental impact, and is not analyzed in detail in the Draft EIR.

In addition, there is no evidence to suggest that the development of retail space along Telegraph Avenue would detract from the viability of existing businesses along Broadway or other commercial streets in Downtown Oakland. On the contrary, the proposed Project, which would result in a large increase in the stable residential population within the Project site, is expected to benefit existing businesses in Downtown Oakland, including those along Broadway.

## **A. FEDERAL, STATE, REGIONAL AND LOCAL AGENCIES**

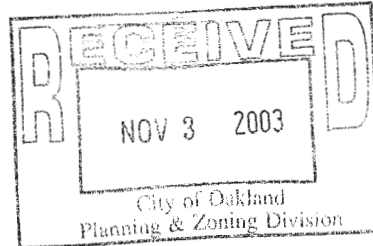


1600 Franklin Street, Oakland, CA 94612 - Ph. 510/891-4716 - Fax. 510/891-7157

**Kathleen Kelly**  
Deputy General Manager - Service Development

November 3, 2003

Lynn Warner  
Planner IV  
City of Oakland Planning Division  
250 Frank Ogawa Plaza, Suite 3330  
Oakland, Ca. 94612



**Re: Draft Environmental Impact Report (EIR), Uptown Mixed Use Project**

Dear Ms. Warner:

Thank you for the opportunity to comment on the Draft Environmental Impact Report for the Uptown Mixed Use Project.

The project is located within the blocks bounded by 18<sup>th</sup> Street on the south, 21<sup>st</sup> Street on the north, Telegraph Avenue on the east and San Pablo Avenue on the west. The Fox Theatre is not part of the project, which consists of approximately 1,000 apartments, 270 condominiums, 1,050 beds of student/faculty housing, 43,000 square feet of commercial space, a 25,000 square foot public park, and 1,959 parking spaces.

**Overall Comments**

Uptown presents as strong an opportunity as exists in Oakland to do transit-oriented development. The site is at the center of the East Bay transit network and adjacent to the core of Downtown Oakland. Because the proposed project is primarily housing, it would result in customers for Downtown businesses, pedestrian life on evenings and weekends, and "reverse commute" transit riders. We are also pleased that the project would develop the site intensely--it is a textbook location for high-density housing. This is particularly beneficial for a site that is now primarily used for parking. The Uptown project is only four blocks from AC Transit's General Office, so this would very much be development in our own neighborhood.

Our comments relate to existing and planned transit--especially the Bus Rapid Transit (BRT) project and Rapid Bus service, which is proposed for Telegraph Avenue immediately adjacent to the project. The expected presence of the BRT has implications for siting of uses--especially the Sears Auto Center--and for the design of the project.

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Page 2

Given these issues, we are also concerned about the inappropriately large amount of parking that is proposed for the project. As a result, we have suggested a new mitigation, as well as modifications to existing mitigations, which are represented through *italics*.

1

#### **Transit Capacity**

We note that the EIR estimates that peak period loads on AC Transit buses in Downtown Oakland will rise less than 3% as a result of this project. We accept that this impact is deemed not to be significant.

2

#### **Current Transit Service**

As the discussion on pp. 91-93 indicates, the Uptown site is served by numerous bus lines. The site is within a few blocks of the best served area of the AC Transit district.

Figure IV.D-3 does not illustrate all of the most recent changes:

- Line 19 operates through the Alameda tubes, via 7<sup>th</sup>/8<sup>th</sup>, Broadway and 11<sup>th</sup>/12<sup>th</sup> to West Oakland, Emeryville, and West Berkeley;
- Line 50 operates through the Alameda tubes and on the same route as the 19, but terminates at 11<sup>th</sup> & Martin Luther King. This route segment will be re-designated the 63 in December.
- Line 88 operates from Lake Merritt BART to North Berkeley BART via. 11<sup>th</sup>/12<sup>th</sup>, Market St., and Sacramento St.;
- Line 14 does not operate on 11<sup>th</sup>/12<sup>th</sup>, but on 14<sup>th</sup> St., where it also shown.
- Line 82/82L no longer operates on 14<sup>th</sup> St., but on 11<sup>th</sup>/12<sup>th</sup> St., where it also shown

#### **Transit Service as of December, 2003**

AC Transit will modify its service to Downtown Oakland as of December, 2003. The most important change will be elimination of line 58/58X. Alternative service from MacArthur Boulevard to Downtown Oakland will be provided by Line NL, which will operate along 20<sup>th</sup> Street between Harrison and San Pablo. Late night owl service to San Francisco currently provided by the A line will be provided by line NL in December. Service will remain along all other routes now being served, although in some instances, route numbers will change.

3

#### **Bus Rapid Transit and Longer Range Plans**

AC Transit is planning to develop a Bus Rapid Transit (BRT) line and Rapid Bus service from Berkeley to San Leandro that will operate adjacent to the project along Telegraph Avenue between 20<sup>th</sup> and 21<sup>st</sup> Streets. Coming from the north, the line is planned to operate along Telegraph Avenue, turn left at 20<sup>th</sup> Street, and right at Broadway. The BRT is designed to provide high speed, high frequency, high capacity service on key East Bay transit corridors. The project is currently undergoing environmental review.

We are working closely with the City of Oakland to design a station on 20<sup>th</sup> Street between Broadway and Telegraph. We hope that this station will not only allow for

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Page 3

pleasant, efficient bus operations and passenger comfort, but will also serve as an attractive public amenity for the Uptown area. We also appreciate the fact that no garage entrances are planned along the BRT route.

**3**  
**cont.**

**Sears Auto Center Site**

Because of the planned BRT station on 20<sup>th</sup> Street, we strongly recommend that the Sears Auto Center be relocated to the preferred site of 22<sup>nd</sup> & Telegraph. The alternate site at 20<sup>th</sup> & Telegraph would be adjacent to this station. The two uses would be incompatible, with the Auto Center generating a high volume of vehicles that could conflict with the high volume of AC Transit buses using 20<sup>th</sup> Street. In addition, an auto repair center does not represent a transit-friendly use for passengers waiting at 20<sup>th</sup> Street. Placing an auto repair use on such a prominent corner would be inappropriate urban design.

**4**

**Transit Mitigations**

Mitigation Measure AIR-2 outlines a number of transit, services, and bicycle/pedestrian measures that the City *may* (emphasis added) require the Project to implement. We believe that the transit and bicycle/pedestrian measures--such as designing buildings to facilitate transit access (Transit Measure ii)--are achievable and important. The EIR should state that they *shall* be required, to assure that they are implemented.

**5**

We would also suggest modifying Transit Measure I to read as follows: *Construct transit facilities such as bus turnouts/bus bulbs, benches, shelters, and other needed facilities, with the review and approval of AC Transit.* AC Transit will be operating a wider range of bus types than we do now, and it is important that all transit-related facilities be fully functional for all of our vehicle types.

**Bus Service and Project Design**

The project should also take note of the buses that will be operating on 20<sup>th</sup> Street between Broadway and San Pablo. While the BRT line will have turned, Lines 15, 72/72M/72R, and NL are all planned to operate on this block. Together, these buses are planned to operate 17 trips per hour in each direction during weekday daytime periods. The project appears to have only one garage access driveway from this block of 20<sup>th</sup> Street, which should reduce conflicts. The developers should take note of this high level of bus activity in designing the project.

**6**

**Parking Provided**

AC Transit commends the fact that the Uptown project proposes a lower level of parking than many recent Downtown Oakland projects. However, we believe that the proposed amount of parking is too large, given the project's characteristics and its location at a primary transit hub.

**7**

The project proposes to provide one parking space per unit, and one parking space for every two beds in the college residence. Oakland's S-15 zoning regulations, which apply to BART stations outside of Downtown Oakland, allow as little as .5 spaces per



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unit. Uptown has more transit service and more destinations within walking distance than the S-15 BART stations, making it easier for people to live in Uptown without a car. The higher requirement on Uptown seems inconsistent. The EIR forecasts that 60% of units will be studios or one-bedroom units. These units would be occupied by small households with lower car ownership rates than the parking requirement has accommodated. We suggest that the parking ratio--particularly for apartment units--be lowered.

In addition, the provision of one parking space for every two beds in the college residence is excessive. Rates of car ownership by residents in dorms at the University of California Berkeley are substantially lower than this. Berkeley students living at the Uptown site would not normally be able to drive to campus, because the University does not provide parking spaces for students except under special circumstances. UC Berkeley students can also ride AC Transit for free by showing their student identification cards. The Bus Rapid Transit project discussed above will provide fast transit directly from Uptown to the Berkeley campus. These parking and Class pass policies, in addition to the myriad transit options that will be available, further reduce the likelihood of students owning cars. The parking ratio for these beds should be lowered substantially.

To the extent that these parking spaces are available during the daytime, they will tend to attract auto-driving commuters. As the EIR notes, the 1,620 spaces that would be built under this project are more than the existing 1,242 spaces. Commuter use is undesirable and inconsistent with Oakland's stated planning goals. However, nothing in the project as described would prevent this use from happening.

Reducing the parking requirement would reduce the cost of the project, making it more financially feasible. It could also reduce traffic to the site and reduce the requirement for traffic mitigations.

#### **Parking Charges Mitigation**

It is widely acknowledged that charging for parking helps limit parking demand. This EIR includes no mitigations requiring parking charges. Therefore we propose the following mitigation:

- *All parking created pursuant to this EIR shall be charged for at market rates, as determined by the City of Oakland. Any tenant leasing parking shall pay for that parking separately from its rent/lease payment, and no tenant shall be compelled to lease parking.*

#### **Signal Cycle Lengths**

The EIR states that increased traffic will require changes to signal timing at Telegraph & William, and Harrison & Grand. We assume that the signal cycles at these locations would be extended, although the EIR does not specify that. Since AC Transit operates at both of these locations, we should be consulted about signal cycle changes. Such changes can be helpful or harmful for bus operations. They also generally create delay

**7**  
**cont.**

**8**

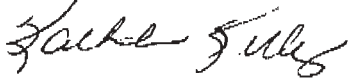
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for pedestrians--an undesirable outcome. Additionally, on Telegraph Avenue, substantial changes in signal timing are planned as part of the Bus Rapid Transit project. Therefore, any changes in signal timing on Telegraph related to the Uptown project should be coordinated with the BRT.

**8**  
**cont.**

AC Transit looks forward to working with Oakland to facilitate the development of Uptown as a model transit-friendly area. If you have any questions about this letter, please contact Nathan Landau, Senior Transportation Planner, at 891-4792.

Sincerely,



Kathleen Kelly  
Deputy General Manager  
Service Development Department

Cc: AC Transit Boardmembers  
Jim Gleich  
Tina Spencer  
Jon Twichell,  
Nathan Landau

## COMMENTOR A1

**AC Transit; Kathleen Kelly, Deputy General Manager, Service Development Department;  
November 3, 2003**

A1-1: As documented in the Draft EIR and indicated in the comment, the proposed Project provides parking to meet the minimum requirements of the City's Zoning Code. It should be noted that the City's parking standards have been established to meet minimum demand and take account of the Central Downtown location and the availability of transit options within the Downtown area. The over- or under-provision of parking is not considered an environmental impact in and of itself, and mitigation measures are not required, because parking would not directly result in substantial adverse physical impacts, such as air pollution, traffic, or land use incompatibility. Vehicle trip generation is associated with Project uses, not the provision of parking. All of the potential impacts from the Project's vehicle trip generation are fully discussed in the Draft EIR chapters on traffic, air quality, and noise. Parking demand and supply will be reviewed and considered by the Project decision makers as each Project phase is approved. AC Transit's comments pertaining to parking will be considered at that time.

A1-2: This comment indicates that AC Transit agrees with the EIR's finding that the Project would not result in a significant impact to transit systems or levels of service. No further response is necessary.

A1-3: Figure IV.D-3, Existing Transit Network, has been revised to illustrate the most recent changes to the AC Transit Network and is included in Chapter V of this document.

The comments regarding changes to Downtown Oakland transit service, and Bus Rapid Transit and Rapid Bus Service are noted. No revision to the Draft EIR is necessary as recent changes in this transit network (implemented after research was complete for the Draft EIR) do not significantly change the analysis or the findings related to transit included in the Draft EIR. The Project will still not exceed the significance criterion: generate added transit ridership that would increase transit ridership by 3 percent at bus stops where the average load factor with the Project in place would exceed 125 percent over a peak 30-minute period.

A1-4: The siting of an auto center adjacent to a BRT station would not represent a significant land use impact in and of itself; auto-oriented uses and transit stations are not intrinsically incompatible. The auto center would not necessarily restrict the functioning of the BRT station more than any other land use. Access and egress to the auto center and the BRT station will be considered by the City prior to site plan approval for the auto center as part of its standard site plan review and approval process which will require the site plan to comply with typical standards and requirements. Such standards and requirements would ensure that vehicles entering and leaving the auto center would not adversely affect the operation of AC Transit vehicles and will be imposed by the City's standard process. As such, this potential impact is not considered significant and no mitigation measures are required.

Per AC Transit's request, Mitigation Measure AIR-2 has been revised as shown below, to require implementation of the listed measures and provide for review and comment of proposed transit facility improvements by AC Transit.

A1-5: Page 159 of the Draft EIR is revised as follows:

Mitigation Measure AIR-2: To the extent permitted by law, the Uptown Project shall be required to implement Transportation Control Measures (TCMs) as recommended by the BAAQMD. ~~However, the City of Oakland will implement as feasible on the basis that this Project is an infill mixed used development project that in and of itself supports many Smart Growth Principals.~~ Measures that the City ~~may~~ shall require the Project to implement, or that are already proposed as part of the Project, include the following:

- *Transit Measures*: (i) Construct transit facilities such as bus turnouts/bus bulbs, benches, shelters, ~~etc.~~ and other needed facilities subject to the review and comment of AC Transit. (Effectiveness 0.5 percent - 2 percent of all trips, BAAQMD *CEQA Guidelines*); (ii) Design and locate buildings to facilitate transit access (e.g., locate building entrances near transit stops, eliminate building setbacks, etc.) (Effectiveness 0.1 percent - 0.5 percent of all trips, BAAQMD *CEQA Guidelines*).

A1-6: The comment does not address the adequacy of the EIR; no further response is necessary. The City and Project developer will consider this information as the public review of the Project proceeds.

A1-7: Refer to Response to Comment A1-1. The City will consider AC Transit's preference for a reduction in the total amount of proposed parking and a requirement that all parking be charged for at current market rates as part of its consideration of the Project's merits. The provision of parking as proposed by the Project does not result in any significant impacts pursuant to CEQA. As a result, no mitigation measures that address parking are warranted.

A1-8: Mitigation Measure TRANS-1 requires the City to prepare a signal optimization and timing plan for all intersections in the area bounded by San Pablo Avenue, Grand Avenue, Telegraph Avenue and 17<sup>th</sup> Street. AC Transit currently operates bus and rapid bus service, and is studying the implementation of BRT service in this area. The City of Oakland will consult with AC Transit during the preparation of this plan to ensure that signal optimization mitigates the Project's impacts and optimizes the flow of automobiles and buses through the area.

Mitigation Measure TRANS-1 beginning on page 123 of the Draft EIR is revised as follows:

Mitigation Measure TRANS-1: Optimization of the signal timing at the intersection of San Pablo and Thomas L. Berkley Way (20<sup>th</sup> Street) would improve function to LOS D in the PM peak hour. This intersection functions as an integrated

signal system with other intersections in the downtown area. To mitigate the Project's impact at this location and others, the City shall prepare a signal optimization and coordination plan for the area bounded by San Pablo Avenue, Grand Avenue, Telegraph Avenue, and 17<sup>th</sup> Street prior to Project occupancy. The plan shall address the timing and equipment requirements, as necessary for all of the signalized intersections located within this area. The Project sponsor shall fund its fair share cost of the preparation of this plan and the implementation of the signal timing program. Implementation of the signal optimization program may also involve the purchase and installation of interconnection hardware (i.e. modems, microwave antennas, etc). The City of Oakland will consult with AC Transit during preparation of the plan.

Given that the Project sponsor is responsible for only a portion of this mitigation measure, implementation of this set of improvements will be funded fully by one or a combination of the following means:

1. The Project sponsor shall fully fund the costs of the signalization improvements and shall be reimbursed through other fair-share contributions as future projects occur that exceed ~~fall within~~ the City's thresholds of significance occur.
2. The City, at its ~~their~~ sole discretion, shall establish a Traffic Improvement Program and concurrent Traffic Impact Fee Ordinance to fund the mitigation measure.
3. The Redevelopment Agency, at its ~~their~~ sole discretion, shall contribute funds to the costs of implementation. (LTS)

The implementation of Mitigation Measure TRANS-1, as revised, would not lead to any new or more severe impacts.



City of Alameda • California

November 3, 2003

FILE COPY

Ms. Claudia Cappio  
Development Director, City of Oakland  
250 Frank H. Ogawa Plaza, Suite 3330  
Oakland, CA 94612

Subject: Comments on Uptown Mixed Use Project Draft EIR

Dear Ms. Cappio:

Thank you for the opportunity to comment on the Uptown Mixed Use Project Draft EIR Draft EIR ("Uptown EIR"). Over the course of the last few years, the City of Alameda has received numerous requests from the City of Oakland to conduct detailed and comprehensive traffic analyses of traffic conditions in Downtown Oakland and the potential effects of development on existing conditions in Downtown Oakland. In response to these requests, the City of Alameda has accumulated an extensive database of existing and projected traffic conditions throughout downtown Oakland. This database is continually updated using City of Oakland traffic studies, the Alameda County Congestion Management Agency (CMA) regional traffic model, and ongoing in-field observations.

In recent months, the City of Alameda and the City of Oakland have had extensive discussions about the existing and projected traffic problems at the "gateways" to Oakland, which are also used by Alameda residents and businesses. We received written communications from both former City Manager Robert Bobb and former Planning Director Leslie Gould claiming that the City of Alameda underreported potential impacts at these critical locations. In contrast to the City of Oakland's stated concerns to the City of Alameda about these future traffic conditions and the impact of traffic on Oakland Chinatown, the City of Oakland's Uptown EIR future year ("baseline") projections (which includes full build out of Alameda Point) fails to recognize most of these well-known problems, fails to evaluate the project's contribution to these problems, fails to take any responsibility for the additional traffic that the proposed project's approximately one thousand residential units will contribute to these well-know problem areas, and utterly fails to acknowledge or even consider the impact of the development on the Chinatown community. It appears that the Uptown EIR includes a number of faulty assumptions, which have resulted in a underreporting of significant impacts to the transportation system that is shared by all of the cities in Alameda County.

In the interest of providing the public with consistent information about the state of our shared transportation system, please provide written clarification on the following specific concerns about the Uptown EIR.

Planning and Building Department

2263 Santa Clara Avenue, Room 190  
Alameda, CA 94501  
510 748.4530 • Fax 510 748.4593 • TDD 510 522.7538



1. **Adequacy of Projected Traffic, Air, and Noise Impact Analysis.** The Alameda County Congestion Management Agency recently informed the City of Alameda that the land use data provided for the CMA Model 2002 update by ABAG is flawed. Without a valid data base, all of the future year traffic, air and noise projections for 2005 and 2025 in the Uptown EIR are flawed. Even if the City of Oakland, corrected the inaccuracies for the TAZs within Oakland, all of the inaccuracies for all of the neighboring jurisdictions must also be corrected to ensure valid traffic model results for the shared, regional roadway system. Without valid traffic model results for 2005 and 2025, none of the EIR conclusions regarding 2005 and 2025 traffic, air quality, or noise impacts can be considered adequate or valid because they all depend upon valid traffic data from the CMA model.

1

2. **Land Use and Transportation Element EIR:** According to page 39 of the Draft EIR, the Uptown EIR tiers off of the Land Use and Transportation Element EIR (LUTE EIR). The LUTE EIR identifies a number of impacts that result from the "downtown showcase" projects, which include the Uptown Mixed Use Project site. Specifically, the LUTE EIR correctly identifies impacts from Oakland development at the intersection of 12<sup>th</sup> and Brush. (This intersection currently backs up onto I-24 on a regular basis in the AM peak hour, as predicted in the 1996 LUTE EIR.) The LUTE EIR, the City of Oakland City Center EIR, and the City of Oakland Housewives Market EIR commit the City of Oakland to mitigations to eliminate this significant impact to a level of less than significant. To date, the City of Oakland has ignored its responsibilities and commitments adopted in these Mitigation Monitoring Program for these Oakland EIRs and allowed this significant impact to occur. As described in the LUTE EIR, the Uptown Mixed Use project is partially responsible for this impact. Therefore, the Uptown EIR must acknowledge this impact and include a mitigation to rectify the ongoing problems at 12<sup>th</sup> and Brush.

2

It should be noted, that the continuing congestion at this gateway to Oakland, causes traffic headed to Jack London Square and Alameda to use alternative routes to access the Tubes and the Jack London Square. Many of these alternative routes require driving through Oakland Chinatown, which could be avoided if Oakland had met its commitments to mitigate this impact from past developments.

3. **Significant Unavoidable Impacts associated with the LUTE EIR.** The LUTE EIR identifies a series of significant unavoidable transportation impacts associated with downtown development, which specifically includes the Uptown Project. Significant unavoidable impacts were identified for a number of locations. The two most important to Alameda include:
- o SR 24 in the AM and PM peak hour, which is major regional freeway used by Oakland and Alameda residents and business, and

Uptown EIR Comments  
November 4, 2003

Page 3

- o SR 260 (Webster-Posey Tubes).

Although the Uptown EIR tiers off of the LUTE EIR, it fails to acknowledge these significant unavoidable impacts associated with Uptown development. These impacts must be acknowledged in the Uptown EIR and new, the current Oakland City Council must make updated statements of overriding consideration for the Uptown Project. The Uptown EIR must therefore be revised and recirculated to include these significant unavoidable impacts.

The court stated in *Communities for a Better Environment v. California Resources Agency (2002)* 103 Cal. App. 4<sup>th</sup> 98 122-125 that:

*"The requirement of a statement of overriding considerations is central to CEQA's role as a public accountability statute; it requires public officials, in approving environmentally detrimental projects, to justify their decisions based on counterbalancing social, economic or other benefits, and to point to substantial evidence..."*

*"Even though a prior EIR's analysis of environmental effects may be subject to being incorporated in a later EIR for a later, more specific project, the responsible public officials must still go on record and explain specifically why they are approving the later project despite its significant unavoidable impacts."*

State of California Public Resource Code Section 21159.25 (commonly referred to as Assembly Bill 436) does not allow the City of Oakland to bypass this fundamental principle of the California Environmental Quality Act. If the City of Oakland wishes to tier off of the LUTE EIR, it must also acknowledge the significant unavoidable impacts associated with development consistent with the LUTE EIR and must make new statements of overriding considerations for each of these projects, including the Uptown Mixed Use Project. These significant impacts must be acknowledged in a revised and recirculated Uptown EIR, so that the public has a complete understanding of the full range of impacts associated with the City of Oakland development plans.

Thank you for your consideration of our concerns. We look forward to working cooperatively with the City of Oakland to identify solutions, funding mechanisms, and shared responsibility for improving our shared transportation system.

Sincerely,

  
Gregory Fuz, (A7)  
Planning and Development Director

xc: City Manager

2  
cont.



Uptown EIR Comments  
November 4, 2003

Page 4

Deputy City Manager, Alameda Point  
City Attorney  
Mayor and City Council

## COMMENTOR A2

**City of Alameda; Gregory Fuz, Planning and Development Director; November 3, 2003**

*Note: This letter was received by the City of Oakland via fax on November 12, 2003, nine days following the close of the public comment period.*

A2-1: This response addresses the concerns raised about the effects of the recently revised ABAG employment allocations on the results of the transportation analyses in the *Uptown Mixed-use Project EIR*. Subsequent to the preparation of the Draft EIR, the Alameda County Congestion Management Agency (ACCMA) informed the Draft EIR authors that it had discovered a number of inaccuracies in the allocation of employment within some Bay Area jurisdictions. The ACCMA indicated that the employment totals by jurisdiction, population totals by jurisdiction and the allocation of population by jurisdiction were found to be correct; however, for some cities, the employment was misallocated geographically.

When notified of the inaccuracies in the model data, the Draft EIR authors conducted a detailed investigation of the model land-use inputs used to prepare the study's transportation forecasts. This investigation identified the following:

- The Uptown DEIR uses the City of Oakland's updated cumulative land-use database and, therefore, does not rely upon the ACCMA information for land-uses within the City of Oakland. Because of this update to the land use forecasts within the City of Oakland, any inaccuracies within the ACCMA information for Oakland would not have been used in the DEIR. References in the Draft EIR to the ACCMA model have been modified to indicate that the model has been updated to reflect the cumulative land use forecasts of the City of Oakland. These numerous text changes are not listed below, but are included in Chapter V, Draft EIR Text Revisions.
- The land-use forecasts for the Cities of Alameda, Emeryville and Piedmont, are accurate, and in some cases conservatively high.
- While the allocation of employment for other cities may be inaccurate, the employment totals for those jurisdictions are correct.

As a result of this investigation, the Draft EIR authors concluded no evidence suggested that the potential misallocation of employment at substantial distance from the Project site would substantially alter the forecasts or conclusions of the Draft EIR.

Appendix A-1 provides a detailed response to those concerns and makes three main points. First, the response explains that the recently identified inaccuracies in the original ABAG employment allocations do not affect the land use data for Oakland that were used in the transportation analyses, as the allocations of Oakland employment are not based on the ABAG data. Second, the validity of the Oakland land use data supports the adequacy and validity of the EIR transportation analyses and forecasts given the importance of the Oakland land use data to those analyses and their results. Third, the response provided in Appendix A-1 explains that possible revisions to the allocations of employment in other cities in Alameda County outside of the EIR study area would not substantially change

the EIR conclusions drawn from the recent transportation model analyses. Please refer to Appendix A-1 for a detailed response.

A2-2: The LUTE EIR was used as the basis to prepare this Focused EIR under the provisions of section 21159.25 of the CEQA statutes. Although section 21159.25 exempts this Project from the requirement to analyze cumulative impacts, given that the project triggered an analysis under the ACCMA requirements (100 or more PM peak hour trips), a cumulative traffic analysis was prepared. In order to provide a complete informational document, this cumulative analysis was included. The analysis is based on growth projections that are more current and accurate than the projections prepared for the 1998 LUTE EIR. In part, this increased accuracy stems from the data obtained from the 2000 Census, which presents an extensive and much more current database than the information used in the LUTE EIR, where the base year was extrapolated from the 1990 census. Additionally, the LUTE EIR analyzed years 2005 and 2015 consistent with the ACCMA 1997 requirements. The ACCMA now requires analysis of years 2010 and 2025. Finally, the cumulative analysis was prepared for a particular project, thereby increasing the specificity of the impact analysis. As a result, the analysis impacts included in the Uptown Transportation Study superseded what was included in the LUTE EIR.

The Uptown Transportation Study uses the current land use forecasts for population and employment of the City of Oakland and the ACCMA, and not the forecasts developed for the LUTE EIR. Current land use forecasts included in the Uptown study are greater than those evaluated in the LUTE EIR, as detailed in Appendix A-2 of this document, thus, the conclusions of the current study are conservative in that they reflect a more accurate, updated, and worst-case scenario than that prepared for the LUTE EIR.

The ACCMA model (updated to reflect the cumulative land use forecasts of the City of Oakland) does not forecast that any Project traffic will pass through the intersection of 12<sup>th</sup> Street/Brush Street. Uptown related regional traffic using area freeways, such as I-980, I-880, SR 24 and I-580, will use other ramps to access the Project site. Specifically, the I-980 ramps at 17<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup> Streets are expected to serve the bulk of Uptown freeway traffic. To a lesser extent, the Grand Avenue ramps with I-880, I-80 and I-580 are also expected to serve some Uptown related regional freeway traffic. Any Project traffic that may want to travel to or from the City of Alameda is expected to use local City of Oakland streets such as Webster and Franklin to complete their trips. Since no Uptown related traffic is anticipated to pass through the 12<sup>th</sup> Street/Brush Street intersection, it was not identified for inclusion in the Draft EIR. While the authors of the Draft EIR recognize that even though not forecasted through the model, as a practical matter some small number of Project related trips may pass through the 12<sup>th</sup> Street/Brush Street intersection. However, such a small number of trips will not result in a significant project or cumulative impact at this location; therefore it was not included in the study.

All signalized intersections in the cities of Oakland, Alameda, Emeryville, and Berkeley were tested and screened for inclusion in the Uptown EIR Transportation Study. Non-signalized intersections in the vicinity of the project site were also screened. The study includes all intersections which satisfied the following two criteria:

- Intersections to which the Project would add 50 or more peak hour trips; and

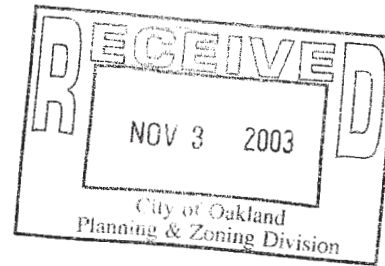
- Inside the downtown area, the intersection was identified as operating at LOS D or worse, or, outside of the downtown area, the intersection was identified as operating at LOS C or worse.

It is at these intersections where the Project could result in a significant adverse impact. The Project's trip distribution was developed using the ACCMA model. Forty intersections in and around downtown Oakland were found to satisfy these criteria. The intersection screening service level criteria were developed based on the City's significance criteria which identify impacts inside of the downtown area at LOS E or worse (as set forth in the General Plan LUTE policies), and impacts outside of the downtown area at LOS D or worse.

The transportation study evaluates all freeway facilities requested for analysis by the ACCMA and Caltrans through the EIR scoping process. These facilities include I-980, SR 24, I-580 and I-880. The project was found to add the greatest amount of traffic to I-980; however, this addition was not found to constitute a significant adverse impact. The project was not found to significantly impact any of the analysis freeway segments under the methodology and criteria of both the City of Oakland and Caltrans (all freeway facilities were evaluated using both methodologies). It is reasonable to assume that the analysis of freeway facilities further a field, would not identify new project impacts.

In addition to freeway facilities, all intersections in the City of Alameda were screened for inclusion in the Draft EIR, based on the methodology described in Response To Comment B3-7. No intersections in Alameda were found to satisfy the Draft EIR screening criteria.

The Uptown Transportation Study, which, as explained above, provides a more current, comprehensive, and project-specific analysis than what is included in the LUTE EIR, only identifies one significant and unavoidable impact (at the intersection of Frontage Road and West Grand Avenue). Based on this updated analysis and the identified significance criteria, no other project or cumulative significant and unavoidable impacts related to traffic are anticipated to result from implementation of the Uptown Project. Therefore, there is no need to acknowledge such impacts in the Uptown Draft EIR. The City of Oakland will consider the appropriate findings when it considers certification of the Uptown EIR and the requested development approvals.



November 3, 2003

Ms. Lynn Warner  
Planner IV  
City of Oakland  
Community and Economic Development Agency  
Planning Division  
250 Frank H. Ogawa Plaza, Suite 3330  
Oakland, CA 94612

SUBJECT: Comments on the Draft Environmental Impact Report for the Uptown Mixed Use Development Project in the City of Oakland (Case Number ER03-0007)

Dear Ms. Warner:

Thank you for the opportunity to comment on the City of Oakland's Draft Environmental Report (DEIR) on the Uptown Mixed Use Development Project. The project would consist of construction of approximately 1,000 apartments and 270 condominiums, 1,050 student beds/faculty units, 43,000 square feet of commercial space, 1,959 parking spaces and a 25,000 square foot public park. The project site is located on a nine block, 15-acre site in the Uptown District of the City of Oakland, and is bounded by Thomas L. Berkley Way (20<sup>th</sup> Street) on the north, Telegraph Avenue on the east, 18th Street on the south, and San Pablo Avenue on the west. It does not include the Fox Theater.

The ACCMA respectfully submits the following comments:

- Page 123-134, Mitigation Measures TRANS-1 2, 4, 6, 7, 8, 9, 10, 12, 13, 14: Payment of funds towards preparing and implementing a signal optimization and coordination plan for the project area:
  - What mechanism will the City use to obtain a fair share of the payment for the costs of implementing this mitigation measure?
  - When will the project sponsor make this payment? Will it be triggered to discretionary project approvals? If so, which ones? Will it be made when the entire development is approved or will it be phased over time?
  - If the City establishes a Traffic Improvement Program with a concurrent Traffic Impact Fee Ordinance and this occurs after project approval, how and when will the City collect the project proponent's fair share of the cost of traffic signalization improvements?
  - If the Redevelopment Agency decides to contribute funds to the costs of implementation of signalization improvements, how would this affect the City's determination and collection of the project proponent's fair share of these improvements?

Ms. Lynn Warner  
November 3, 2003  
Page 2

- Page 124, Impact TRANS-3 and Page 133, Impact TRANS-11, Need to widen intersection of Grand Avenue and Frontage Road/West to address LOS F and vehicle delay in the PM peak hour in 2010 and 2025: Both of these Impacts are identified as Significant and Unavoidable due to inability to make improvements on another agency's (Caltrans) jurisdiction.
  - Please confirm whether you have contacted Caltrans to determine whether they have any improvement plans for this area. If so, a mitigation measure should be added that the project sponsor should contribute their fair share of these improvements. This measure should include the mechanism and timing for such fund collection.
  
- Page 106, Planned Transportation Improvements considered by the City of Oakland:
  - Is the reconfiguration of Telegraph Avenue between 16<sup>th</sup> Street and Thomas L. Berkley Way (20<sup>th</sup> Street) assumed in the traffic impact analysis?
  - If it is assumed, what funding source would pay for this and what date is this project expected to be constructed?

2

3

Once again, thank you for the opportunity to comment on this Draft EIR. Please do not hesitate to contact me at 510/836-2560 ext. 13 if you require additional information.

Sincerely,

Diane Stark  
Sr. Transportation Planner

file: Chron  
CMP - Environmental Review Opinions - Responses - 2003

### COMMENTOR A3

#### Alameda County Congestion Management Agency; Diane Stark, Senior Transportation Planner; November 3, 2003

- A3-1: Mitigation Measure TRANS-1 describes the information, analysis, and process that needs to be included in the signal optimization and coordination plan prepared by the City. The types of questions included in this specific comment will be addressed in the plan which will be required to be prepared prior to the City's issuance of a building occupancy permit pursuant to the Mitigation Monitoring and Reporting Program included in Chapter V of this document. The plan would include: a mechanism to ensure fair share payments for implementing Mitigation Measure TRANS-1; guidelines regarding when the fair share payments shall be made; a method to be used for collecting fair share payments from project proponents; and a strategy for determining fair share payments in the event that the Redevelopment Agency contributes funds toward the mitigation measure. It is important to note that none of the identified transportation impacts are projected to occur until at least the year 2010 and several will not occur until 2025. The signal optimization and coordination plan will include requirements to ensure that necessary signal improvements are funded and implemented as necessary to mitigate these future year impacts.
- A3-2: Caltrans has been contacted, and reports that no improvement is planned at the intersection of Grand Avenue/Frontage Road/I-880 Ramps.<sup>3</sup>
- A3-3: The reconfiguration of Telegraph Avenue between 16<sup>th</sup> Street and Thomas L. Berkley Way (20<sup>th</sup> Street) is included in the year 2010 and 2025 intersection level of service analyses. Construction of the reconfiguration project is expected to begin in October of 2005. Construction is expected to last seven to nine months. The Project will be funded by approximately \$1.8 million from Measure B and approximately \$1.2 from Local Tax Increment funding from the Redevelopment Agency.<sup>4</sup>

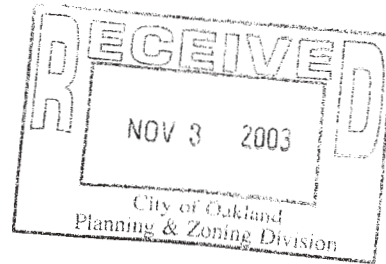
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<sup>3</sup> Rod Oto, Caltrans District 4, Office of Highway Operations, Telephone conversation, 11/17/03.

<sup>4</sup> Jeff Chew, City of Oakland, CEDA, Telephone conversation, 11/14/03.



November 3, 2003



Claudia Cappio, Director of Planning and Zoning  
City of Oakland Planning Division  
250 Frank H. Ogawa Plaza, Suite 3330  
Oakland, CA 94612

Dear Ms Cappio:

Re: Draft Environmental Impact Report – Uptown Mixed Use Project

The East Bay Municipal Utility District (EBMUD) appreciates this opportunity to review and comment on the Draft Environmental Impact Report (EIR) for the Uptown Mixed Use Project in the City of Oakland. EBMUD has the following comments on the Draft EIR.

On pages 179 - 192, Section G, Hazards and Hazardous Materials, addresses the potential for contaminated soils or groundwater to be present within the project site boundaries. The project sponsor should be aware that EBMUD will not install pipeline in contaminated soil or groundwater (if groundwater is present at any time during the year at the depth piping is to be installed) that must be handled as a hazardous waste, or that may be hazardous to the health and safety of construction or maintenance personnel wearing Level D personal protective equipment. Nor will EBMUD install pipeline in areas where groundwater contaminant concentrations exceed specified limits for discharge to sanitary sewer systems or sewage treatment plants.

Applicants for EBMUD services requiring excavation in contaminated areas must submit copies of all known, existing information regarding soil and groundwater quality within or adjacent to the project boundary and a legally sufficient, complete and specific written remedial plan establishing the methodology, planning and design of all necessary systems for the removal, treatment, and disposal of all identified contaminated soil and/or groundwater. EBMUD will not design the installation of pipelines until such time as soil and groundwater quality data and remediation plans are received and reviewed and will not install pipelines until remediation has been carried out and documentation of the effectiveness of the remediation has been received and reviewed. If no soil or groundwater quality data exists or the information supplied by the applicant is insufficient, EBMUD may require the applicant to perform sampling and analysis to characterize the soil being excavated and groundwater that may be encountered during excavation or perform such sampling and analysis itself at the applicants expense.

1

On page 193, paragraph 6, “The East Bayshore Water Project” should be replaced with “East Bayshore Recycled Water Project”.

2



Ms. Claudia Cappio  
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Page 2

On page 194, paragraph 1, replace the sentence, "As of 2001, EBMUD's water supply was insufficient . . ." with "In 1993, EBMUD adopted a long-term Water Supply Management Program (WSMP) that serves as a planning guide to the provision of a reliable high-quality water supply to the EBMUD service area through year 2020. The WSMP identified that, during severe multi-year droughts, EBMUD would be unable to meet its customers need for water with its existing source supply, the Mokelumne River, without imposing extreme rationing measures. The 1993 WSMP resulted in two principal options for meeting EBMUD's projection for a supplemental water supply: additional surface or underground storage and additional surface water. Development of an additional surface for EBMUD use may be possible by either enlarging the existing storage at Pardee Reservoir and/or by utilizing EBMUD's Sacramento River contract entitlement."

3

On page 194, paragraph 4, replace the first sentence " The Project site is served . . ." with "The Project site is served by pipelines in the existing streets that range in size from 4 to 12 inches." Please delete the second sentence, "These lines and associated minor . . .", because the stated flow rate is not available. Also delete the last sentence, "The minimum flow standards for lines serving . . .", as they are inconsistent with the typical fire flow requirements specified by the local fire departments. The project sponsor should verify the required fire flow for this project with the City of Oakland's Fire Department.

4

On page 198, paragraph 1, second sentence, replace the daily demand of 329,000 gpd to 365,000 gpd as indicated in the Water Supply Assessment provided to the City of Oakland on August 13, 2003.

5

On page 198, paragraph 1, after the fourth sentence, please include "The City's dual plumbing ordinance requires that the project sponsor install dual plumbing systems within new project development for the appropriate use of recycled water from EBMUD's East Bayshore Recycled Water Project, as EBMUD plans to supply recycled water to the project site within the next ten years for landscape irrigation."

On page 198, paragraph 3, please delete the first two sentences. As noted in EBMUD's March 29, 2003 response to the Notice of Preparation (NOP) that is included in Appendix A-3 of the Draft EIR, main extensions (including pipeline replacements) and/or pipeline improvements may be required depending on metering and fire flow requirements.

6

On page 198, paragraph 4, please delete the second and third sentences. The stated fire flow requirements are inconsistent with those stated on page 194, paragraph 4 and are inconsistent with the typical fire flow requirements specified by the local fire departments.

7

On page 198, paragraph 5, please delete the second, third and fourth sentences, "Wastewater generated by the Project represents less than 0.2 percent of the MWWTP's secondary treatment capacity. This wastewater would be accommodated by the MWWTP, which is currently operating at 46 percent of its secondary treatment capacity. Therefore, wastewater generated by

8

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Page 3

the proposed project would be subject to both primary and secondary treatment and would not violate the wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board.” EBMUD's NOP response indicated that the Main Wastewater Treatment Plant (MWWTP) would have adequate dry weather capacity for the project, provided the wastewater meets the standards of EBMUD's Source Control Division. However, the ability of the MWWTP to treat wet weather flows from the project needs to be ascertained. EBMUD's response to the NOP very clearly requested specific language in the Draft EIR regarding confirmation of capacity with the City of Oakland in the sub-basin where the project is located. This language is not in the document.

**8**  
**cont.**

On page 199, paragraph 1, last sentence, the statement that “the proposed project would not require the construction of new wastewater treatment or transport facilities” is not correct. Treatment capacity needs to be confirmed by the City of Oakland as stated above, relevant to wet weather flows. Regarding transport facilities, the paragraph states that “Public Works agency staff have indicated that as part of the final public improvement plans for the Project, the conveyance system will be evaluated to confirm what repairs, if any, will be incorporated into the final public improvement plans and specifications.” If this is not to be determined until a future date, then it cannot be definitively stated at this time that no conveyance work will be needed.

**9**

If you have any questions concerning this response, please contact Marie Valmores, Senior Civil Engineer, Water Services Planning, at (510) 287-1084.

Sincerely,



WILLIAM R. KIRKPATRICK  
Manager of Water Distribution Planning

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sb03\_289.doc

cc: LSA Associates, Inc.

*Letter*

*A4*

*cont.*

Ms. Claudia Cappio  
November 3, 2003  
Page 4

bcc: J. Smith  
M. Bonnarens  
R. Harris  
M. Valmores  
A. Victoria  
A-619  
Chron

#### COMMENTOR A4

#### East Bay Municipal Utility District; William R. Kirkpatrick, Manager of Water Distribution Planning; November 3, 2003

A4-1: Comment noted. Mitigation Measures HAZ-1a and HAZ-1c in the Draft EIR require the completion of an environmental investigation and the preparation of a Soil and Groundwater Management Plan, respectively, prior to the initiation of ground-disturbing activities within the Project site. Implementation of these measures would ensure that EBMUD workers or other construction personnel would not face health risks from soil or groundwater contamination during the installation of water or sewer lines. Data on soil and groundwater contamination within the Project site will be submitted to EBMUD prior to the installation of utility lines.

A4-2: Page 193 of the Draft EIR is revised as follows:

The East Bayshore Recycled Water Project, which would provide up to 2.3 mgd of recycled water to residents in Alameda, Albany, Berkeley, Emeryville, and Oakland, is currently in the planning stage. The Project would involve the construction of new treatment and disinfection facilities at the EBMUD Main Wastewater Treatment Plant. The service area of the East Bayshore Recycled Water Project, which is anticipated to be completed prior to 2010, would include the Project site and its surroundings. In January 2002, the City adopted a water reuse ~~dual plumbing~~ ordinance, which requires new development to use recycled water provided by EBMUD, and to install dual plumbing systems if the use of recycled water is financially and technically feasible.

A4-3: Page of 194 of the Draft EIR is revised as follows:

. . . mgd by 2020.<sup>5</sup> As of 2001, EBMUD's water supply was insufficient to meet customer needs in multiple year droughts, even taking into account the implementation of water conservation and recycling programs.<sup>6</sup> In 1993 EBMUD adopted a long-term Water Supply Management Program (WSMP) that serves as a planning guide to the provision of a reliable high-quality water supply to the EBMUD service area through the year 2020. The WSMP identified that, during severe multi-year droughts, EBMUD would be unable to meet its customers' needs for water with its existing source supply, the Mokelumne River, without imposing extreme rationing measures. The 1993 WSMP resulted in two principal options for meeting EBMUD's projection for a supplemental water supply: additional surface or underground storage and additional surface water. Development of additional surface water for EBMUD use may be possible by either enlarging the existing storage at Pardee Reservoir and/or by utilizing EBMUD's Sacramento River

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<sup>5</sup> East Bay Municipal Utility District, 2001. op. cit.

<sup>6</sup> ~~Ibid.~~

contract entitlement. Water from the Sacramento River contract entitlement is anticipated to be available to EBMUD by 2007.

A4-4: Page 194 of the Draft EIR is revised as follows:

~~The Project site is served by 8-inch water lines along San Pablo Avenue and Telegraph Avenue. The Project site is served by pipelines in the existing streets that range in size from 4 to 12 inches. These lines, and associated minor water line connections, are anticipated to have an available capacity of over 5,000 gallons per minute (gpm). The City Fire Department maintains minimum flow standards for pipelines serving residential and commercial uses. Prior to the construction of development projects in the City, project applicants are required to verify the capacity of water pipelines that would serve the Project to ensure they meet the Fire Department's minimum fire flow requirements. The minimum flow standard for lines serving residential uses is 2,500 gpm; the minimum flow standard for lines serving commercial uses is 4,500 gpm.<sup>7</sup>~~

A4-5: Based on a detailed water demand analysis completed by Korve Engineering, it was determined that the proposed Project would result in an average daily demand for water of 329,000 gallons. Appendix B of this document contains these water demand calculations for the proposed Project.

Page 198 of the Draft EIR is revised as follows:

**(1) Water.** The proposed Project would require water for a variety of uses, including household uses, commercial uses, and irrigation of the proposed 25,000 square-foot park. Based upon anticipated uses within the Project site, implementation of the proposed Project would result in an average daily demand for water of 329,000 gpd (120,085,000 gallons per year) and a peak demand of 366,000 gpd.<sup>8</sup> ~~The anticipated daily water demand that would result from implementation of the proposed Project represents approximately 0.2 percent of average daily water demand within the EBMUD service area. The proposed Project would be outfitted with water-conserving fixtures, as required by the Uniform Building Code, and would incorporate dual plumbing systems, to take advantage of available recycled water supplies. The City's water reuse ordinance requires that the Project sponsor install dual plumbing systems within the Project site for the appropriate use of recycled water from EBMUD's East Bayshore Recycled Water Project, as EBMUD plans to supply recycled water to the Project site within the next 10 years for landscape irrigation. Private, water-consuming lawns would not be developed as part of the proposed Project. Therefore, the proposed Project, which represents an efficient use of water, would not is not anticipated to require the construction of new water supply facilities. EBMUD representatives have given a preliminary indication that they can serve this Project's water demand, and the EBMUD Board will confirm that determination by the end of September 2003. Overall~~

<sup>7</sup> Khalili, Amin, 2003. Korve Engineering. Personal communication with LSA Associates, Inc. July 24.

<sup>8</sup> Khalili, Amin, 2003. Korve Engineering. Personal communication with LSA Associates, Inc. July 24.

water requirements are subject to negotiations with the Fire Department. EBMUD will make a determination as to the availability of water supplies and the need for system improvements until after the final water demands have been established.

A4-6: Page 198 of the Draft EIR is revised as follows:

~~The average daily water demand associated with the proposed Project would be approximately 228 gallons per minute, or approximately 4 percent of available water line capacity.<sup>9</sup> Sufficient capacity exists to accommodate this increased demand, although select lines may need to be improved depending upon their age and condition. On-site line improvements would be made during as part of the Project construction period construction of public improvements for the Project and are not anticipated to result in significant environmental impacts that are different or more severe than impacts that would result from construction of other components of the proposed Project. As noted in the EBMUD letter dated March 28, 2003 (in response to the NOP for the proposed Project), main extensions (including pipeline replacements) and/or pipeline improvements may be required depending on metering and flow requirements.~~

A4-7: Page 198 of the Draft EIR is revised as follows:

Requirements for minimum water flow (for the purpose of fighting fires) at Project sites in the City are based on a review of hydrant locations, type of construction and access from public streets, along with other factors such as other life safety components in the building. These requirements are subject to negotiations with the Oakland Fire Department and will be established when Project design details have been finalized. Typically, fire flow requirements are 2,500 gpm for residential uses, and 3,500 gpm for commercial uses. ~~As noted in subsection a(3), Distribution Pipelines, water lines that serve the Project site are anticipated to have an available capacity of over 5,000 gpm.~~ Based on the anticipated capacity of water lines serving the Project site, and ~~correspondence~~ communication with EBMUD, it is ~~expected~~ anticipated that required minimum water flow would be available ~~within~~ at the Project site without a major upgrade of water lines.<sup>10</sup> As previously stated, the flow requirements are subject to negotiations with the Fire Department. EBMUD will make a determination of the availability of these flows following the determination of the required flows.

A4-8: Sewage capacity within the EBMUD system, including both hydraulic capacity and treatment capacity, is allocated among the communities and agencies that rely on EBMUD for wastewater treatment. The entity delivering sewage to EBMUD can use this capacity allocation in any way that they want, as long as the capacity allocation for a sub-basin is not exceeded. In the case of the proposed Project, the sub-basin allocation is controlled by the Oakland Department of Public Works. The availability of sub-basin

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<sup>9</sup> ~~Ibid.~~

<sup>10</sup> Toothman, Robert, 2003. Korve Engineering. Personal communication with LSA Associates, Inc. September 2.; EBMUD, 2003. Personal communication with Brandon Whitehurst, Korve Engineering.

capacity is determined by the City within their existing agreement with EBMUD and is not based on the overall capacity of the treatment plant.

The Oakland Public Works Agency has indicated that adequate capacity exists within the sub-basin to accommodate wet weather flows resulting from the proposed Project. Calculations showing expected wastewater generation from the proposed Project are provided in Appendix B.

Page 198 and 199 of the Draft EIR is revised as follows:

**(2) Wastewater.** Implementation of the proposed Project would result in the generation of approximately 280,000 gpd of wastewater.<sup>11</sup> ~~Wastewater generated by the proposed Project represents less than 0.2 percent of the MWWTP's secondary treatment capacity. This wastewater would be accommodated by the MWWTP, which is currently operating at 46 percent of its secondary treatment capacity. Therefore, wastewater generated by the proposed Project would be subject to both primary and secondary treatment and would not violate the wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board. The wastewater lines that serve the Project site have a capacity of 1.35 mgd based on average existing wastewater flow (6,970 gpd), and could accommodate the increase in flow that would result from the proposed Project.<sup>12</sup> The City of Oakland Public Works Department has confirmed that adequate hydraulic capacity exists in the new facilities that would be constructed as part of the Project and EBMUD's sanitary sewer system downstream from the Project site (sub-basin) to accommodate wet-weather flows resulting from implementation of the proposed Project. The Department of Public Works has also indicated that the wet weather flows associated with the improvements are within the sub-basin allocation for delivery to EBMUD. In addition, sanitary sewers that would be developed as part of the proposed Project would be adequately sized to accommodate wet weather flows. Therefore, adequate capacity exists to convey and treat wastewater that would be generated as part of the proposed Project. Public Works Agency staff have indicated that as part of the final public improvement plans for the Project, the conveyance system will be evaluated to confirm what repairs, if any, will be incorporated into the final public improvement plans and specifications. Therefore, and implementation of the proposed Project would not require the construction of new wastewater treatment or transport facilities.~~

A4-9: Refer to Response to Comment A4-8.

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<sup>11</sup> Ibid.

<sup>12</sup> Ibid.

## **B. ORGANIZATIONS**



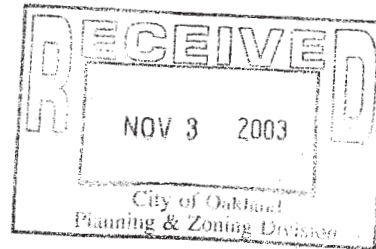


**CHINESE HISTORICAL SOCIETY OF AMERICA**

965 Clay Street • San Francisco, CA 94108-1527 • tel 415-391-1188 • fax 415-391-1150 • www.chsa.org

November 3, 2003

Ms. Lynn Warner  
Case Planner for Case File Number ER 03-0007  
City of Oakland Planning Division  
250 Frank H. Ogawa Plaza, Suite 3330  
Oakland, CA 94612



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Dear Ms. Warner,

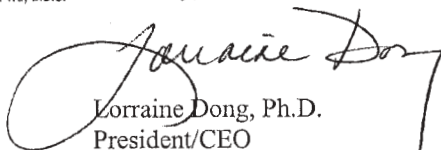
I am writing this letter of concern on behalf of the Chinese Historical Society of America. Established in 1963, CHSA is the oldest not-for-profit organization dedicated to the promotion, education, and preservation of Chinese American history.

We have just been informed of the proposed Uptown Mixed Use Redevelopment Project (case file number ER 03-0007) that plans to demolish all the buildings for the area between San Pablo and Telegraph Avenues and between 21<sup>st</sup> and 18<sup>th</sup> Streets. With the understanding that this area might contain archaeological remains of Oakland Chinatown that existed anywhere between 1867 to 1894, CHSA urges the City of Oakland's Planning Division to stop the full-scale demolition of this area until measures are secured to ascertain the existence of such archaeological remains in order to preserve them for posterity.

The City of Oakland has tried numerous times in the past to expel Chinese in the area for redevelopment reasons. The Uptown Project appears to be the continuation of a history that prejudices and ignores the existence of the Chinese in America, all in the name of redevelopment. If we want to rectify mistakes made in the past, then Oakland must take proactive steps to show everyone that it is not trying again to bury this historic Chinese American community permanently into oblivion.

Once again, the Chinese Historical Society of America urges you to acknowledge and preserve the historical significance of the area being proposed for demolition. We do not see any valid necessity for making this a "rush job" that might cause great regret in the future.

Sincerely,



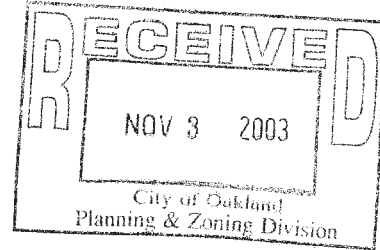
Lorraine Dong, Ph.D.  
President/CEO

cc: Councilmember Henry Chang (hchang@oaklandnet.com)  
Councilmember Jean Quan (jqquan@oaklandnet.com)  
Councilmember Danny Wan (dwan@oaklandnet.com)

**COMMENTOR B1**

**Chinese Historical Society of America; Lorraine Dong, Ph.D., President/CEO; November 3, 2003**

B1-1: Refer to Master Response M-1 on page 14 of this document.



November 3, 2003

Claudia Cappio ccappio@oaklandnet.com  
Lynn Warner, Planner IV  
Planner, Community & Economic Development  
Oakland City Planning & Zoning Department  
250 Frank Ogawa Plaza Suite 2114  
Oakland, CA 94612

Re: Draft Environmental Impact Review / Case File Number ER 03-0007

Dear Ms. Cappio and Ms. Warner:

The Lakeside Apartment Neighborhood Association (LANA) proposes that the preservation of the historic fabric of uptown and creative adaptive reuse solutions should be priorities in the Uptown Mixed-Use Project Draft Environmental Impact Report.

Therefore we request further study in the Draft Environmental Impact Report of the transition between existing structures and the proposed "Uptown" development to ensure the preservation of existing structures of all historic periods, whether 19<sup>th</sup> century buildings, the Western Power Building, Giant Burger (former Kwik Way) or the barbecue restaurant.

1

Small businesses in Oakland should be fostered and integrated into the urban design, not threatened with eminent domain. Repeatedly I hear city officials and staff state that one of the objectives of "development" is to bring in small businesses to Oakland yet simultaneously thriving small businesses such as Revelli Tires, Autohaus car repair, etc. are threatened with eviction.

2

Why should hard working small businesses that contribute to the City's taxes be removed to make room for developers that require public subsidies? Instead of "developments" that demonstrate a slash and burn philosophy of urban planning we support developers whose projects reflect vision, respect, and creative integration of the existing historic fabric.

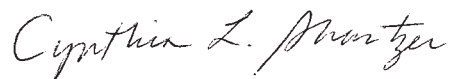
In the October 15, 2003 Oakland City Planning Commission meeting Development Director, Ms. Claudia Cappio reported that the DEIR was available online. This information was not correct.

3

The Jack London Square Draft Environmental Impact Report was posted on the City of Oakland's website. Why wasn't the Draft Environmental Report for the Uptown Mixed-Use Project, ER-0007, posted online?

**3**  
**cont.**

Respectfully submitted,



Cynthia L. Shartz  
1528 Alice Street, Apt. 12  
Oakland, CA 94612  
510-763-7173  
Co-Chair, Lakeside Apartment Neighborhood Association  
Website: [www.oaklandlana.org](http://www.oaklandlana.org) Email: [oaklandlana@yahoo.com](mailto:oaklandlana@yahoo.com)

## Environmental Impact Reports

<u>Name/Project</u>	<u>Case Number</u>	<u>Comment</u>
1.) <u>Oakland Army Base Current DEIR- April 2002</u>	N/A	
2.) <u>Oakland Army Base Final EIR- July 2002</u>	N/A	
3.) <u>Oakland Army Base Current Draft EIR Appendix- April 2002</u>	N/A	
4.) <u>Oakland Army Base Current DEIR Traffic Supplemental- April 2002</u>	N/A	
5.) <u>200-228 Broadway Project Final EIR</u>	ER01-0008	
6.) <u>200-228 Broadway Project Draft EIR</u>	ER01-0008	
7.) <u>426 Alice Street Final EIR</u>	ER01-0025	
8.) <u>426 Alice Street Draft EIR</u>	ER01-0025	
9.) <u>RAP/RMP Documents- July 2002</u>	ER01-0025	
10.) <u>300 Harrison Street Draft EIR</u>	N/A	
11.) <u>Final EIR for the 300 Harrison Street Project</u>	ER00-0039	
12.) <u>Jack London Square Redevelopment Draft EIR</u>	ER03-004	

**COMMENTOR B2**

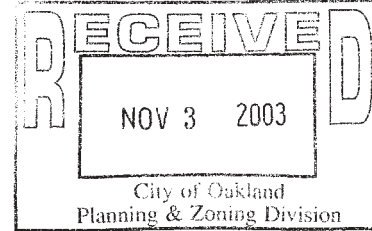
**Lakeside Apartment Neighborhood Association; Cynthia L. Shartzter, Co-Chair; November 3, 2003**

- B2-1: The analysis in the Draft EIR of existing historic structures within the Project site is sufficient to allow for a reasoned assessment of the impacts of the proposed Project on these historic structures. All buildings within the Project site (with the possible exception of the Great Western Power Company Building) would be demolished as a result of Project implementation. Therefore, there was no analysis of the “transition” between proposed buildings and existing buildings. Impacts HIST-5 through Impact HIST-11 in the Draft EIR address demolition of historic structures within the Project site. Also refer to Responses to Comments B4-8 and B4-14.
- B2-2: This comment refers to the merits of the proposed Project and not to the analysis or conclusions contained in the Draft EIR. This comment is noted and will be considered by the City and taken into account as review of the project proceeds.
- B2-3: Due to a clerical oversight, the Draft EIR was not posted on the City’s website during the public review period. However, the Draft EIR is currently available online and was always available in hard copy or on CD from the Oakland Community and Economic Development Agency. Pursuant to *CEQA Guidelines* section 15087(c)(5), the address of the location where the Draft EIR could be obtained was publicized in both the Oakland Tribune and in the Notice of Availability, and the Draft EIR itself was made available during the City’s normal working hours.

**Oakland Chinatown Coalition**  
**Oakland Chinatown Chamber of Commerce**  
**Asian Health Services**

November 3, 2003

Ms. Lynn Warner  
City of Oakland Community and Economic Development Agency  
Planning Division  
250 Frank H. Ogawa Plaza, Suite 3330  
Oakland, CA 94612



BY FAX: 510 238 6538  
BY e-mail: [lwarnet@oaklandnet.com](mailto:lwarnet@oaklandnet.com)

Subject: Comments on the Uptown Mixed Use Project Draft Environmental Impact Report  
Case No. ER03-0007  
State Clearinghouse No. 2000052070

Dear Ms. Warner:

Thank you for providing us the opportunity to comment on the DEIR. We strongly support the goals of this Project to provide environmentally sustainable housing for people with a wide range of incomes. The community that we serve is well aware of the many benefits of living in the Downtown. Our community has one of the lowest rates of automobile ownership and a smaller proportion of our residents drive to work than almost anywhere else in the city.

Nonetheless, we are heavily impacted by traffic. As the DEIR points out on page 90, "Traffic signals on both Franklin and Webster are coordinated to facilitate through traffic on these two key roadways."

The heavy use of Chinatown streets as thoroughfares creates an uncomfortable dilemma for our community when a project is proposed that does not take the quality of our environment into account. The Uptown Project has the potential to address Oakland's, including Chinatown's, urgent need for affordable housing accessible to transit. Unfortunately, the Uptown Project also will contribute to traffic patterns that have created hazardous conditions for Chinatown's many pedestrians.

We believe that the Environmental Impact Report can be a good opportunity for the Uptown Project to take full account of our environmental quality. In the comments that follow, we have pointed out where the DEIR has failed to do so, and urge revisions that will enable us to support the Uptown Project without reservations, as we would prefer.

We are available to help in any way we can.

Yours truly,

Jennie Ong  
Oakland Chinatown  
Chamber of Commerce

Sherry Hirota  
Asian Health Services

Attachment: Comments on Uptown DEIR

**COMMENTS ON THE UPTOWN PROJECT DEIR**

**Definition of the Project is unclear:**

The Project site, which consists of a nine-block area, is located within the Uptown District of Oakland, as shown in Figure I-1. The proposed Project includes the following components: approximately 1,300 residential units, 1,050 student beds and faculty units, and 43,000 feet of commercial space. Associated Project components include a 25,000 square-foot public park, 1,959 parking spaces, and the development of one public street within the Project site. The additional public street is intended to shorten block lengths and provide enhanced access within the Project site. Implementation of the proposed Project would result in the development of a mixed-use neighborhood in the Uptown District. Please refer to Chapter III, Project Description, for more details.

The text above<sup>1</sup> distinguishes “proposed Project components” from “associated Project components,” but without explanation. It appears that some components of the associated Project are public improvements (the park and the new street) but the reason for distinguishing between the Project and the parking is unclear, especially since the parking spaces are distributed throughout the Project area.

The status of Blocks 8 and 9 are also unclear. Table III-1<sup>2</sup> shows no development on Block 8. The text indicates that Block 8 is a fallback site for the Sears Auto Center.<sup>3</sup> Does this mean that Block 8 will be dropped from the Project if the Auto Center is rebuilt on Block 9, and vice versa? Or will the site host additional development that is in some way associated with the Project? If it is reasonably foreseeable that both sites will be developed, the full development program must be evaluated in this EIR. In addition to concerns that piecemeal environmental review understates impacts, there is the possibility that the ninth block would be developed for a substantial amount of additional retail use to fully serve the new Uptown residential neighborhood. If it is foreseeable that the development of blocks 9 and 10 would result in a 9-block project with 25% or more retail use, the EIR must not rely on AB436 exemptions.

2

**REQUESTS**

- 1. Explain differences between Project components and associated Project components.
  
- 2. Provide information about the development of blocks 8 and 9 explain how the City expects to provide environmental review of the entire 9-block Project.

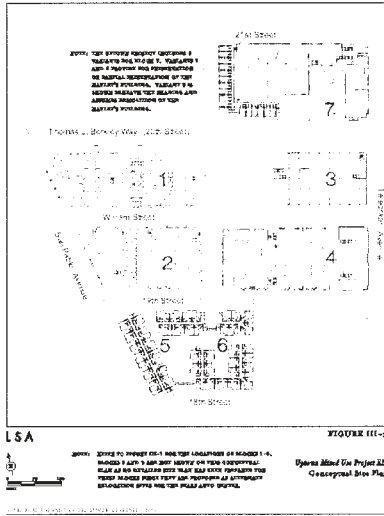
**Mismatch between Intended Use of EIR and Level of Information Provided**

The City intends to use this EIR “for all discretionary approvals necessary for the Project,”<sup>4</sup> which we must assume includes project level review of all entitlements. However the DEIR provides only a bare outline of the development program—for the Sears Auto Center (that it will include “approximately 10,000 square feet of retail space for the auto center and 50 on-site parking spaces”). Neither block 8 nor block 9 is included in Figure III-2 illustrating the conceptual site plan.

3

<sup>1</sup> DEIR page 1  
<sup>2</sup> Page 42  
<sup>3</sup> page 45  
<sup>4</sup> page 48





REQUEST

3. Provide project-level information about blocks 8 and 9 or commit to providing supplemental environmental review.

3  
cont.

**Application of AB 436 (Public Resources Code 21159.25 to Cumulative Analysis**

The DEIR states that it includes an analysis of cumulative impacts even though provisions of AB436 exempt the this Focused EIR from that requirement.<sup>5</sup> We believe that the cumulative impacts analysis must comply with CEQA, even if it is not required by CEQA. A certified EIR containing an inadequate or inaccurate analysis could create misunderstanding and confusion, especially if cited in subsequent environmental review analyses.

4

**Ensure that LUTE EIR mitigations are implemented by the Uptown Project.**

Although this DEIR states that it incorporates mitigation measures required by the 1998 Land Use and Transportation Element EIR (LUTE EIR),<sup>6</sup> it appears that some have been overlooked.

LUTE Transportation Mitigations - Appendix A, for example, is uninformative about transportation mitigations<sup>7</sup> because it does not specify what the improvements are. The transportation mitigation in its entirety states:

5

**3.1: Implement roadway improvements and transit improvements to reduce congestion on arterial roadways.**

REQUESTS

4. Describe the improvements to arterials that the City is committed to implementing, and report on the City's achievements since 1998, as determined by the mitigation monitoring process.

<sup>5</sup> page 3  
<sup>6</sup> Page 3  
<sup>7</sup> Appendix A, page S-2

5. Determine if traffic mitigations proposed for the Uptown Project might conflict or be inconsistent with improvements required by the LUTE EIR. We are particularly interested in an analysis of the combined effects – both direct and indirect –on Chinatown pedestrians and traffic patterns.

5  
cont.

LUTE Public Service Mitigations - The scope of the Focused EIR<sup>8</sup> does not address public services impacts even though the LUTE EIR requires analysis and further mitigation of such impacts as part of the approval process of major land use decisions in the Downtown.<sup>9</sup> These requirements must be incorporated into environmental review of project approvals. As a major project in the Downtown, the Uptown Project is required to address its effects on service levels citywide. For example, Mitigations D. 5 –1 a – e, copied below, require an analysis of the citywide impacts of the Project's demand for Police, Fire, Library, and Recreation services. (Some of these mitigations reappear in Mitigations D 6, 7, and 8.)

D.5-1a: In reviewing major land use or policy decisions, consider the availability of police and fire protection services, park and recreation services, schools, and library services in the affected areas, as well as the impact of the project on current service levels.

D.5-1b: Develop target ratios of police officers and firefighters to population for annual budgeting purposes. These ratios should be used to assess the feasibility and merits of service fees on new development which finance additional police officers and fire fighters

D.5-1c: Increase police foot patrols and cruisers in high visibility downtown areas and locate funding sources to support them.

D.5-1d: Analyze the distribution of services provided by the public and privately operated civic and institutional uses, identify underserved areas of the City and increase services in these areas.

D.5-1e: Solicit comments from the Oakland Police and Fire Departments on major new development proposals to ensure that law enforcement and fire protection impacts are appropriately addressed and mitigated.

6

It is possible that the Notice of Preparation anticipated the necessity to include service impacts in the EIR: included on its list of Probable Environmental Effects is “utilities and service systems.”<sup>10</sup> However, the DEIR Scope transforms this topic into “utilities and infrastructure,”<sup>11</sup> The Table of Contents takes this focus on facilities (to the exclusion of services) a step further by listing the topic as “Infrastructure and Utilities.”

Concerns about the Project's potential impacts on City services are heightened by the fact that most of the property tax revenues generated will be dedicated to the Redevelopment Agency as tax increment funds which will not be able to pay for City services, not even for maintenance of new park associated with the Project.

<sup>8</sup> Pages 3 and 51

<sup>9</sup> Appendix A, page S-11

<sup>10</sup> Appendix A-2, Notice of Preparation page 3

<sup>11</sup> Page 51

In addition, the LUTE EIR suggests that a child care center should be included in projects such as Uptown that provides a substantial amount (40%) of family housing.

**D.7-1d:** Where feasible and appropriate, encourage the inclusion of child care centers in major residential and commercial developments near transit centers, community centers, and schools.

**REQUEST**

6. To ensure implementation of mitigations required by the LUTE EIR, expand the scope of the EIR to address Project impacts on City services.

**6**  
**cont.**

**Transportation Issues**

Study Area – The Study Area includes intersections almost exclusively to the North of the Project<sup>12</sup> even though the map showing trip distribution allocates the greater proportion of local trips to the Project's south<sup>13</sup> - to Chinatown in particular.

Especially for the analyses of 2010 and 2025 conditions, with and without the Project (the cumulative traffic analysis), it is necessary to define a study area that is large enough to capture secondary impacts of the Project, including its contribution to congestion patterns that divert drivers from using direct routes. Chinatown streets are at particular risk from the combined effects of the Uptown Project, Jack London Square Redevelopment, and City of Alameda redevelopment.

**7**

**REQUEST**

7. Extend the Study Area to include intersections along Broadway, Franklin, Webster and Harrison streets in Chinatown.

Freeway segments – Impacts on the freeway system will extend to existing bottlenecks beyond the immediate junctions and ramps listed in Table IV.D-17.<sup>14</sup> Weekend conditions should also be included.

Limiting the portrayal of existing traffic on both regional and local roadways to weekday peak hour conditions gives an incomplete picture of baseline conditions that the Project could impact. Information should be added on daily traffic volumes since the spreading peak limits mitigation options. Weekend data is needed because congestion has become severe and is projected to get worse.

**8**

**REQUESTS**

8. Include the junction of 880, 80, and 580, junction of 880, 980, and 24, and the Bridge toll plaza in the analysis of existing conditions.

9. Provide data on daily conditions for both weekdays and weekends.

<sup>12</sup> Figure IV.D-2, page 87

<sup>13</sup> Table IV.D-8, page 110

<sup>14</sup> page 107

### Trip Distribution

(4) **Trip Distribution.** Vehicle trips forecast to be generated by the proposed Chinatown Project were assigned to the surrounding transportation network based on a distribution pattern developed specifically for this study. The pattern is based on information from the ACCMA Model. Figure IV.D-8 illustrates the Project's anticipated trip distribution pattern.

The DEIR description<sup>15</sup> above on the trip distribution methodology withholds more information than it provides. No further information on the methodology is provided in Appendix E, which is comprised only of the LOS calculations. The lack of information about assumptions and methods used to distribute trips deprives the public of the opportunity to comment on these issues during the DEIR comment period.

The cursory reference to the trip distribution calculations is followed by an unfathomable diagram.<sup>16</sup> Nonetheless Figure IV.D-8 seems to indicate that Chinatown will receive more of the local traffic generated by the Project—a total of 14% - than anywhere else. Yet there is no analysis of the impacts of this traffic on Chinatown intersections and pedestrian conditions.

It also appears from the diagram that Project traffic in Chinatown will be making turns in areas of high pedestrian use, which could worsen existing pedestrian hazards, especially to sensitive populations of children and the elderly.

#### REQUEST

10. Analyze impacts of Project traffic on Chinatown traffic, air quality, and noise. Include an analysis of impacts that would exacerbate existing pedestrian safety problems. The analysis should not be limited to measuring increases in vehicle volume, but should consider the impacts on pedestrian safety of turning vehicles, and increases in delay for pedestrians waiting for signal changes.

Criteria of Significance - Although the list of significance criteria recognizes that hazards to pedestrians could be represent an impact, the definition is overly narrow in its exclusive focus on design features.

#### REQUEST

11. Due to the current unacceptably high rate of pedestrian collisions in Chinatown and the high proportion of the Project's local traffic that will be traveling through Chinatown that could aggravate the problems, the EIR needs to consider any potential increase in pedestrian hazard to be a significant impact, whether caused by the Project itself, or cumulatively with other development.

Traffic Mitigations - The DEIR limits traffic mitigations to measures that increase traffic capacity and it ignores actions that would reduce the number of vehicle trips. The measures in general favor motorists, probably at the expense of pedestrians and bicyclists. Optimizing signal timing, as proposed in almost all of the traffic mitigations, is based on optimal conditions for drivers, not pedestrians. Although the DEIR concludes that there are no adverse impacts to the timing changes, it does not include an analysis that supports this conclusion in any instance where it is proposed: specifically, TRANS-1, 2, 4, 5, 6, 7, 8, 9, 10, 12, 13, and 14. The DEIR conducts the entire discussion about relieving increased delay for motorists as if pedestrians do share the streets.

<sup>15</sup> page 109

<sup>16</sup> page 110

9

10

11

**REQUEST**

12. Analyze the impact on pedestrians' level of service of all proposed signal changes by analyzing increased delay for pedestrians crossing streets.

**11**  
**cont.**

Parking – Since the courts do not consider parking shortfalls (less than full demand) to be an environmental impact, and since the DEIR (properly) does not include a significance threshold for parking impacts, it is unclear why the document assumes that parking shortfalls could impact the environment. By considering parking shortfalls to be a potentially significant impact, the DEIR is able to present the Project's *excess* parking ( it provides more parking than the City requires) as a virtue and avoid discussin its contribution to traffic congestion.

This Project has been represented to the public as a transit-friendly, anti-sprawl development. Its urban densities and proximity to transit surely enable it to become such, but that advantage is dissipated by the inclusion of 1,959 parking spaces plus street parking for a Project that is required only to have 1,620 spaces. The modal split assumptions used in the trip generation calculations (83% non-transit trips) appear to recognize that Project residents will drive their easily parked cars rather than take advantage of convenient transit.

**12**

**REQUEST**

13. Estimate improvements to the rate of transit usage that could be achieved by a substantial reduction in the Project's parking.

**Housing Issues**

The DEIR states in the text<sup>17</sup> and tables<sup>18</sup> that the Project will develop 2,320 housing units, including 250 (10.8 %) affordable units. California Redevelopment Law requires 15% of new housing units to be affordable, although it does not require their inclusion within the project itself, or even the redevelopment project area.

However, the actual number of housing units (as defined by the Census) in the Project is unclear because the text refers also to student "beds". It is unclear how many housing units the 1,000 student "beds" will comprise. For example, if these beds are clustered around shared kitchen facilities, the number of units would probably be the number of kitchens. If the students take their meals independently, then the number of beds would be the number of rooms.

**13**

It is also unclear whether the faculty units would be considered affordable under California Redevelopment Law.

**REQUEST**

14. Clarify the total number of housing units in the Project and the number that can be considered affordable under Redevelopment Law. If additional affordable units are required that will be developed off-site, analyze potential impacts they might generate.

<sup>17</sup> page 74  
<sup>18</sup> page 75

**Cultural Issues**

Chinatown artifacts – The area where Oakland was settled by early Chinese residents (identified in the DEIR as San Pablo between 19<sup>th</sup> and 20<sup>th</sup> Streets<sup>19</sup>) should be fully characterized before excavation begins. The proposed mitigation of on-site archeologists is insufficient for a site where the probability of valuable artifacts is so great

**REQUEST**

- 15. Include a full study of the site of early Chinese settlement in the Final EIR..

**14**

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<sup>19</sup> page 214

### COMMENTOR B3

#### **Oakland Chinatown Coalition; Jennie Ong, Oakland Chinatown Chamber of Commerce and Sherry Hirota, Asian Health Services; November 3, 2003**

- B3-1: This comment expresses support for the goals of the proposed Project and provides an overview of the Coalition's specific comments on the Draft EIR detailed in the attachment to their letter and responded to below.
- B3-2: "Project components" and "associated Project components" together make up the Project. The Draft EIR uses the phrase "associated Project components" to indicate portions of the Project that serve as ancillary uses to the proposed residential and commercial uses.

Page 1 of the Draft EIR is revised as follows to clarify the Project description:

The Project site, which consists of a nine-block area, is located within the Uptown District of Oakland, as shown in Figure I-1. The proposed Project includes the following components: (1) approximately 1,300 residential units; (2) 1,050 student beds and faculty units; and (3) 43,000 feet of commercial space; ~~Associated Project components include a~~ (4) a 25,000 square-foot public park; (5) 1,959 parking spaces; and (6) the development of one public street within the Project site. The additional public street is intended to shorten block lengths and provide enhanced access within the Project site. Implementation of the proposed Project would result in the development of a mixed-use neighborhood in the Uptown District. Refer to Chapter III, Project Description, for more details.

As described in Chapter II of this document, Block 9 has been removed from the Project site and a new block (Block 8a) has been added to the Project site. Block 8a and Block 8 are alternate sites for the relocation of the Sears Auto Center. No net change in total development area would occur as a result of the addition of Block 8a to the Project site. If the Sears Auto Center is relocated to Block 8a, no construction will occur on Block 8 in association with the proposed Project. If the Sears Auto Center is relocated to Block 8, no construction will occur on Block 8a in association with the proposed Project. In no case would both Blocks be developed as part of the proposed Project (Section III, Project Description, of the Draft EIR includes development assumptions based on development on one block). Taking into account development on either Block 8a or Block 8, less than 25 percent of the total floor area of the Project would be used for retail. The Project therefore meets this specific eligibility criterion of CEQA section 21159.25 (AB 436). The comment includes reference to Blocks 9 and 10. The authors of this document have assumed that was an error and that the commentor intended to reference Blocks 8 and 9 since the Project does not include a Block 10. Refer to Response to Comment B3-3 regarding the level of environmental review that has been conducted for this nine-block project (note that only a total of eight blocks will be developed).

- B3-3: Figure III-2, Conceptual Site Plan, indicates that "no detailed site plan has been prepared for (Blocks 8 and 9) since they are proposed as alternate relocation sites for the Sears

Auto Center.” As noted by the commentor, approximately 10,000 square feet of retail space and 50 on-site parking spaces would be developed on either Block 8 or Block 9 (currently Block 8a, due to revisions to the proposed Project). This level of detail for the relocation of the Sears Auto Center is adequate to analyze the significant environmental impacts of this portion of the proposed Project. From these facts, the analysis of land use impact, traffic, noise, air quality, cultural, wind, visual, geology, and public services are possible as demonstrated in the Draft EIR. At the time that the application for relocation of the Sears Auto Center is reviewed by the City, if any of the criteria for subsequent environmental review are met under *CEQA Guidelines* section 15162, then the City would be required to prepare the appropriate environmental documentation.

- B3-4: The Draft EIR includes a cumulative analysis for transportation, air quality, noise, and historical resources (Sections IV.D, IV.E, IV.F, and IV.I, respectively, of the Draft EIR). The cumulative analysis is provided in addition to the minimum requirements of Focused EIRs, as set forth in CEQA section 21159.25. The cumulative analysis provided for these topics is accurate and adequate based on the provisions of *CEQA Guidelines* section 15130 and 15183, which state that the discussion of cumulative impacts “shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the Project alone.” A cumulative analysis for certain topical areas is included in the Draft EIR in the interest of presenting a comprehensive and current environmental evaluation of the proposed Project. The authors of the Draft EIR disagree that the analysis in the document is “inadequate or inaccurate.” This statement does not refer to a specific, page, section, or topical theme in the Draft EIR, and therefore cannot be addressed in this response. These concerns on the part of the commentor seem to be raised in the following comments and are addressed in subsequent responses.

Page 3 of the Draft EIR is revised as follows:

The EIR that was prepared and certified for the Land Use and Transportation Element (LUTE) of the Oakland General Plan has been used as one of the bases for this environmental review. Cumulative impacts and growth-inducing impacts in downtown Oakland have been analyzed in the General Plan LUTE EIR, and repeatedly in numerous EIRs completed for projects in the downtown area. The analysis included in Chapter IV.B, Population, Employment and Housing, of this EIR provides a confirmation that the proposed Uptown Project falls within the City’s employment and population projections to the year 2025. Similarly, the LUTE EIR contained an analysis of alternatives and, pursuant to section 21159.25 of the CEQA statutes, no further consideration of alternatives is required. Both the LUTE EIR and this EIR identify mitigation measures to reduce or eliminate potentially significant environmental impacts. The LUTE EIR, which was certified by the Oakland City Council in 1998, is hereby incorporated by reference into this EIR.<sup>13</sup> In addition, to ensure a comprehensive analysis, even though not required

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<sup>13</sup> The LUTE EIR is available for review at 250 Frank Ogawa Plaza, Suite 3330, Oakland, CA 94612. A summary of the LUTE EIR impacts and mitigation measures is provided in Appendix A of this EIR.



by CEQA section 21159.25, this focused EIR includes a cumulative analysis for potential impacts to transportation, air quality, noise, and historical resources.

B3-5: The transportation improvements that would be implemented as a result of the Uptown project (which is a project that falls within the LUTE program), are detailed in the Project Description (Chapter IV of Draft EIR) and the mitigation measures detailed in Chapter IV.D, Transportation, Circulation and Parking, of the Draft EIR. The information from the LUTE EIR included in Appendix A of the Draft EIR is provided for background informational purposes only.

B3-6: An Initial Study was completed for the proposed Project in February 2003. Public services, along with all the other CEQA-mandated environmental topics, were analyzed in the Initial Study. Based on this evaluation, which took into account the Community Services Analysis prepared for the General Plan LUTE EIR, the City determined that the proposed Project would not result in a significant impact to public services. The one significant unavoidable public services impact identified in the LUTE EIR was in regard to fire fighting service in the Oakland Hills, an area which is highly susceptible to wildland fires. Such an impact would not be affected by the proposed Project and similar urban infill projects, which are located in already-developed areas far from the urban fringe where wildland fires are most prone to occur. The rationale behind the City's finding that the proposed Project would not result in significant public services-related impacts is discussed on page 28 of the Initial Study. Therefore, public services, as an environmental topic, was "focused out" of the EIR analysis. Public services is a topic that is listed as one of the "environmental effects not likely to require further analysis" on page 4 of the NOP, which is included in Appendix A-3 of the Draft EIR.

The allocation of tax revenues and the provision (or lack thereof) of a child care center are not considered physical environmental impacts that must be analyzed in an EIR. A project's impact on public services is considered significant only if the project-related increase in demand for public services requires the provision of new or significantly altered service facilities, the construction of which may cause significant environmental impacts. As described in the Initial Study, the increase in demand for public services that would result from implementation of the proposed Project would not exceed this threshold of significance. The project is located in an already-developed urban site that is currently adequately served by all public service agencies and departments. Implementation of the proposed Project would not require public service providers to geographically expand their range of service. Therefore, the analysis of public services in the Draft EIR is considered to be adequate.

B3-7: All intersections in the Cities of Oakland, Emeryville, Berkeley and Alameda, which could potentially be affected by Project traffic, were tested and screened for inclusion in the Uptown Draft EIR Transportation Study. Those intersections which could potentially be significantly impacted by Project traffic were evaluated in detail in the Draft EIR. To identify intersections which could be impacted by Project traffic, a "pair of screening criteria" was developed, based on the significance criteria of the City of Oakland and the CMA (see Draft EIR pages 109 through 113 for significance criteria). All intersections which satisfy the following two screening criteria are included in the Draft EIR analysis:

- Intersections to which the project would add 50 or more peak hour trips; and
- Inside the downtown area, the intersection was identified as operating at LOS D or worse, or, outside of the downtown area, the intersection was identified as operating at LOS C or worse.

It is at these intersections where the Project could result in a significant adverse impact. It should also be noted that this screening approach is similar to criteria and methodologies commonly employed by other Bay Area jurisdictions. Forty intersections in and around downtown Oakland were found to satisfy these criteria. All forty of these intersections are evaluated in the Draft EIR.

Based on the City's significance criteria, a significant impact is identified when an intersection deteriorates to worse than LOS E inside of the downtown area and worse than LOS D outside of the downtown area. The addition of 50 or fewer trips to an intersection can not reasonably be expected to degrade a service level from LOS D or better to worse than LOS E (inside of the downtown area) or to degrade a service level from LOS C or better to worse than LOS D (outside of the downtown area).

On arterial roadways in the project study area, a net change of 50 or fewer trips would be within daily traffic fluctuations. Daily and peak hour traffic fluctuations of 5 percent or more are commonplace on these types of roadway facilities.<sup>14</sup> For comparison purposes, 50 trips would comprise roughly 1.9 percent of AM peak hour traffic at the intersection of Telegraph and West Grand Avenue, and approximately 1.6 percent of total traffic there during the PM peak hour. This is less than typical daily fluctuations in traffic, and less than the 3.0 percent increase necessary to constitute a significant impact on the CMA Metropolitan Transportation System according to the City of Oakland's significance standards (for facilities operating at LOS F in the baseline condition).

The Project's trip distribution was developed using the ACCMA travel demand model (updated to reflect the cumulative land use forecasts of the City of Oakland as described in Response to Comment A2-1). The ACCMA model does not forecast that a substantial number of Uptown related trips will use travel routes which pass through Chinatown. Specifically, Franklin, Webster, Harrison, 7<sup>th</sup>, 8<sup>th</sup> and 9<sup>th</sup> Streets through Chinatown are not anticipated to serve substantial levels of Uptown traffic, based on the ACCMA model, and were not identified for analysis in the Uptown Draft EIR. On average, Franklin, Webster and Harrison Streets are forecast to carry 10 to 15 Project trips in the morning peak hour and 10 to 15 Project trips in the evening peak hour. Such traffic volumes represent a small portion of the peak hour capacity (less than 1 percent) and existing traffic volumes on these routes. These small additions to peak hour traffic volumes are well within daily and hourly fluctuations in traffic on these facilities, and would not result in a measurable increase in vehicular delay.

B3-8: The weekday AM and PM peak hour conditions are evaluated in detail in the Uptown Draft EIR Transportation Study because it is during these periods that traffic conditions

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<sup>14</sup> FHWA, Office of Information Management, Summary of National and Regional Travel Trends: 1970-1995, Washington DC. FHWA, U.S. Department of Transportation, 1996.

are the poorest throughout the study area, both on local and regional facilities. Due to its residential nature, traffic generation associated with the Project also peaks during the weekday morning and evening peak hours. Traffic levels on local roadways and regional freeways are generally lower during weekday off-peak periods and on weekends because these are non-commute times. In addition, the proposed Project generates less traffic during the weekday off-peak periods and on weekends. Because the study evaluates Project impacts and traffic operations during the “worst-case” weekday peak hours, all of the potential significant impacts and associated mitigation measures of the Project are likely captured.

The transportation study evaluates all freeway facilities requested for analysis by the ACCMA and Caltrans through the EIR scoping process. These facilities include I-980, SR 24, I-580 and I-880. The Project was found to add the greatest amount of traffic to I-980; however, this addition was not found to constitute a significant adverse impact. It is reasonable to assume that the analysis of freeway conditions on the weekend, or on additional freeway facilities farther away from the Project site, such as the Bay Bridge Toll Plaza, the SR 24/I-580/I-980 interchange or the I-880/I-580/I-80 interchange would not identify new Project impacts.

B3-9: Draft EIR Figure IV-D-8 presents the macroscopic Project trip distribution pattern, as predicted by the ACCMA model, revised to reflect the cumulative land use forecasts of the City of Oakland (all references to the CMA Model in the Draft EIR and Final EIR refer to the Model Update to reflect the cumulative land use forecasts of the City of Oakland, as described in RTC A2-1). Draft EIR Figures 4A and 4B, included in Appendix E of the Draft EIR and on the following pages for easy reference, present the project trip distribution at each intersection evaluated in the transportation study. The ACCMA model bases its travel demand projections on the locations of all trip “productions” and “attractions” within Alameda County and the greater nine county Bay Area. Thus, traffic associated with the Project’s residential land uses has been assigned to the area’s roadway and transit network based on the locations of potential origins and destinations, and logical circulation patterns on the local and regional street system. It is also important to note that the model’s characteristics and land use interaction forecasts have been closely calibrated with existing traffic volumes and travel patterns. This calibration allows the model to forecast project trip distribution in a manner similar to that which occurs for existing residential land uses in the area.

The ACCMA model does not forecast that large volumes of Uptown related traffic will use travel routes which pass through Chinatown. Specifically, Franklin, Webster, Harrison, 7<sup>th</sup>, 8<sup>th</sup> and 9<sup>th</sup> Streets through Chinatown are not anticipated to serve substantial levels of Uptown traffic, based on the ACCMA model, and were not identified for analysis in the Uptown Draft EIR. On average, Franklin, Webster and Harrison Streets are each forecast to carry 10 to 15 Project trips in the morning peak hours and 10 to 15 Project trips in the evening peak hours. This amount of traffic represents a small portion of the peak hour capacity (less than 1 percent) and traffic volumes on these routes.<sup>15</sup> These small additions to peak hour traffic volumes are well within daily and hourly

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<sup>15</sup> Ibid.

Figure 4A: Project Traffic Volumes: AM (PM) Peak Hour

8x11

Figure 4B: Project Traffic Volumes: AM (PM) Peak Hour

8x11

fluctuations in traffic on these facilities, and would not result in a measurable increase in vehicular delay.

The City of Oakland recently initiated preparation of the Revive Chinatown Community Transportation Plan. The purpose of this plan will be to evaluate pedestrian and vehicular safety throughout the Chinatown area. This assessment will evaluate the cumulative impact of traffic associated with the Uptown project and all other development which may affect the Chinatown community. Since the Uptown project was not found to add significant levels of traffic to Chinatown roadways, this type of detailed pedestrian analysis and planning effort was not found to be necessary as part of the Uptown Transportation Study. In addition, an incremental increase in traffic on urban roadways has not been shown to adversely impact pedestrian safety.

- B3-10: Refer to Response to Comment B3-9. The addition of small amounts of traffic to roadways has not been shown to result in a direct increase in pedestrian collisions. In fact, the addition of more traffic (and the concurrent overall reduction in traffic speed) may enhance pedestrian safety. Many factors contribute to pedestrian safety, including the availability of crosswalks, the timing of traffic lights, and the length of blocks. The Uptown project would not significantly contribute to any of these factors within Chinatown and is not considered significant.
- B3-11: Mitigation Measure TRANS-1 calls for the development of a signal optimization and coordination plan for all signals in the area bounded by San Pablo Avenue, Grand Avenue, Telegraph Avenue and 17<sup>th</sup> Street. The optimization plan is necessary because of the numerous signal timing changes needed to adequately serve changing traffic conditions in downtown Oakland over the next twenty years. The optimization plan will likely identify different modifications at different intersections. Types of changes to individual traffic signals include: coordination, cycle length modifications and cycle split modifications. The precise signal timing changes are not known at this time, but in all cases minimum crossing times, as required by the City, will be maintained so that pedestrians can safely cross all affected intersections. No adverse significant impacts to pedestrians would result from signal optimization.
- B3-12: Refer to Response to Comment A1-1. The provision of parking spaces does not necessarily reduce transit usage, or increase car commuting rates. Due to the location of the Project site in Downtown Oakland and in the vicinity of numerous transit stations, and the lack of parking in many municipalities in the inner Bay Area, it is expected that residents within the Project site would use alternate forms of transportation, including walking and transit. In addition, the proposed Project would generate a finite demand for parking; if this parking is not provided on-site, vehicle owners will look elsewhere for parking, exacerbating traffic and reducing the available supply of on-street parking.
- B3-13: The U.S. Census defines a housing unit as “a single-family house, townhouse, mobile home or trailer, apartment, group of rooms, or single room that is occupied as a separate

living quarters or, if vacant, is intended for occupancy as a separate living quarters.”<sup>16</sup> Because the configuration and amenities of the rooms in the student housing building have not been finalized (i.e., the Project developer has not determined the number of beds per room, or whether rooms will have kitchens or be served by a common dining area), it is not possible to translate the number of proposed student beds into housing units. Therefore, the environmental analysis in the Draft EIR relies upon the number of student beds to determine environmental impacts. Using the gross number of student beds to evaluate environmental impacts enables a more precise impact analysis, considering that the number of housing units would be in flux depending upon the allocation of beds per room, which determines the number of occupants.

The Oakland Redevelopment Agency will require that the Project Sponsor provide at least 20 percent of the proposed rental units at levels that are affordable to very low income households earning 50 percent or less of the area’s median income. In addition, 5 percent of the rental units must be affordable to households earning 120 percent or less of the area’s median income. This requirement only applies to residential development occurring on Blocks 1, 2, 3, 4 and 6, as the development of those parcels will require Redevelopment Agency funding assistance. The Redevelopment Agency’s affordability requirement pertaining to the percentage of rental units that would be affordable to very-low income households is in conformance with Redevelopment Law. No additional units would be developed outside of the Project site as part of the proposed Project.

Page 45 of the Draft EIR is revised as follows:

~~At least 20~~ At least 20 percent of the rental units constructed as part of the proposed Project ~~(excluding any development on Block 5, 7, 8, and 8a student and faculty units, but including rental and condominium uses)~~ will be affordable to very low income households earning 50 percent or less of the area’s median income ~~would be priced at affordable levels. At least 20 percent of the units would be affordable to households earning up to 50 percent of the Alameda County Median Income; 5 Five percent of the overall units would be affordable to households earning up to 120 percent of the area’s median income. Alameda County Median Income.~~

B3-14: Refer to Master Response M-1 on page 14 of this document.

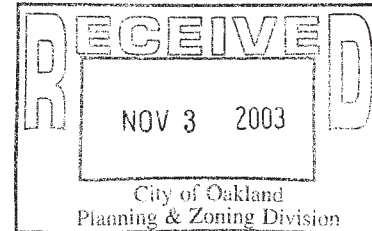
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<sup>16</sup> U.S. Census Bureau, 2003. U.S. Census Bureau, Decennial Management Division Glossary. Website: [www.census.gov/dmd/www/glossary.html](http://www.census.gov/dmd/www/glossary.html).



November 3, 2003

Lynn Warner, Planner IV  
City of Oakland Community and Economic Development Agency  
Planning and Zoning Division  
250 Frank H. Ogawa Plaza  
Oakland, CA 94612



RE: Draft Environmental Impact Report for the Uptown Project  
Case File Number ER03-0004

Dear Ms. Henderson:

Oakland Heritage Alliance appreciates the opportunity to comment on the DEIR for the Uptown Project.

The first section of this letter pertains to the general process for the EIR and related meetings. The second section addresses historic and cultural resources.

OHA is leaving most comments on air quality, affordable housing, open space, parking, and transportation to others interested in these topics. We feel that these are important factors, which may have effects on historic areas, but are limiting this letter to the issues with which our organization is most familiar.

#### **PART I: DEIR REVIEW AND APPROVALS**

##### **PHASED REVIEWS AND APPROVALS**

Because the developer frankly admits that plans are somewhat uncertain for some of the parcels involved in this project, we object to the blanket approval of this EIR as a general green light to move forward on those components. AB 436 notwithstanding, there must be a clear, public mechanism for revisiting this project's environmental impacts as each phase of construction is contemplated, since the present project description leaves unanswered questions. There must be a review of the design features and project effects before each part of the project proceeds. These reviews must occur in public, such as before the Planning Commission, not behind closed doors in staff offices. While current staff may be highly competent, there is no guarantee of institutional memory, nor of the hoped-for high quality of review, in an era of severe budgetary restriction at the planning department.

We are particularly concerned about parcels 5, 7, 8 and 9, for which planned projects are extraordinarily ill-defined, which Forest City says they themselves may not design, develop, nor build, and



which seem to pose the possibility of enormous effects on the surrounding historic buildings, on traffic, on density, on open space, on demand for public services, and on the economic viability of the project. These parcels should be singled out for either a revised draft or a supplemental EIR as they are more defined and the issues become clearer. This EIR is inadequate and incomplete in assessing their impacts upon the potentially important and known important historic resources. It may also be inadequate because the descriptions of the projects on these parcels, are so vague as to be meaningless. The high-rise and other planned buildings on these parcels require much further study. Why, when the developer clearly is most interested in the core area of residential construction on the two large blocks between 19th and Thomas Berkley Way, Telegraph and San Pablo, should this area be widened to incorporate areas which are already built upon and functioning? Redevelopment should not be viewed as carte blanche to demolish large tracts of occupied city blocks. Incremental private development is a better mechanism for making progress in these borderline areas.

1  
cont.

**INSUFFICIENT DISTRIBUTION OF NOTICE FOR DEVELOPER-SPONSORED MEETINGS**

Related public discussion meetings held this fall by the developers and attended by city staff were inadequately noticed, with resultant poor attendance. No flyers were left at area businesses for distribution to their customers; many uptown Broadway businesses were completely unaware of this project's progress, even though it may have enormous impacts upon them, and neighborhood organizations did not seem to know about the meetings, except for one or two immediately local ones and businesses impacted by the threat of eminent domain. The radius used for supposedly neighboring businesses was much too small. In addition, the meeting notices came out quite a bit too late for people to make plans to attend. OHA representatives found that we were spread thin trying to attend both the uptown meetings and the several other meetings and events which directly competed with it. This was most disappointing, particularly in comparison with earlier meetings which had approximately 10 times the turn out. We know that citizens of Oakland are interested in this project. We had asked repeatedly, months before, for projected dates for these meetings.

2

**DEIR INADEQUATE, INCOMPLETE IN THESE RESPECTS**

The inadequacy of the mitigations for impacts on the historic and cultural resources should be remedied in the final EIR. There should be a clear statement of the mechanisms for further review of the ill-defined projects on parcels 5, 7, 8 and 9.

**PART II: HISTORIC AND CULTURAL RESOURCES**

*Inadequately or not at all studied in this DEIR analysis, and subject to very significant impacts:*

**• THE GREAT WESTERN POWER BUILDING: DEMOLITION UNACCEPTABLE, IMPACTS POTENTIALLY TOO GREAT**

The demolition of this building is completely unacceptable to Oakland Heritage Alliance and its members. Particularly in view of its new ownership, with an owner who plans to do an attractive restoration of the facade, there is no excuse for planning any demolition on this site. The DEIR fails completely to discuss the impacts a large, as-yet-undesigned building, might have on the Great Wester Power Building. The EIR must address an appropriate and sensitive

3

design, should a building go forward on the site, not just butting up against (and shading) the historic building, but relating to it in a sensitive and appropriate manner. Since this project is vague and not well worked out, it is almost impossible to address it. The entire block between 20th, 21st, San Pablo and Telegraph should be studied in a further focussed environmental review, with discussion of urban planning issues, impacts, mitigations, and proposed design criteria.

**3**  
**cont.**

The shade impacts seem to be severe, and the simple assertion that “the facade does not contain complex detailing” may not really be true, and does not excuse the impacts. The EIR must study an alternative that would be kinder to this building.

**4**

OHA believes that other buildings on this block are worthy of study and retention, in order to avoid the tendency for redevelopment districts to successively sprawl, demolish, and empty out regions of the city. Oakland’s experience in this regard has been that areas of the city, once vacated and demolished (even with excellent intentions on all sides), tend to remain blighted and vacant for decades thereafter. There should be no demolitions permitted, and no pushing out of viable businesses, until absolutely necessary—once a project has been fully approved.

**5**

Should the decision go forward to demolish the Great Western Power Building (which we would stoutly oppose), the proposed mitigations are far too weak to have much impact. We would propose that should such a demolition go forward there would need to be a really significant mitigation, such as a substantial funding of improvements to remaining historic buildings in the uptown area.

**6**

The case has not been made for a necessity for any demolition on this block; the entire issue must be revisited with a supplemental focussed EIR.

**7**

• **THE 19TH AND SAN PABLO DISTRICT: UNACCEPTABLE LOSSES**

Goals 1., 2., 7., 8., 11., and 16. (pages 41-42 of DEIR) could be served well by retaining some of the historically interesting buildings on the site. The small-scale buildings at 1958-60, 1966-68, 1972, 1998 San Pablo Avenue could be restored and retained as part of the planned development. This would provide a better transition between the project and the spectacular historic resources across San Pablo (See photo, page 211). It would reinforce the project’s incorporation into the urban fabric, helping it to avoid that “plopped down” feeling, and would provide some interesting spaces for retail, community, live-work, or entertainment uses on a small scale. We have provided an attachment, showing how the buildings could fit in quite well with the planned scale of the proposed development on that block. Incorporate the buildings rather than demolishing them.

**8**

We question the wholesale demolition of the resources across the street in the area of the former Royal Hotel. We fail to understand the reasoning that the small buildings at 1958-1998 can be cheerfully included in an unnecessary demolition because they are part of a district in which, once they are demolished, enough historically important buildings would survive: “These remaining buildings include . . . primary contributors (the Hotel Royal. . .)” when the preparers of this EIR *know full well*, and mention a few pages later, that there is another proposed project which may result in the destruction of other significant buildings at that intersection, *including* the Hotel Royal (pp 226-227). This is like saying, when faced with two slowly sinking ships, that it’s okay to dynamite one because the other one is still afloat, so one ship

will still remain. And then the second ship sinks. It is absolutely not acceptable to demolish this whole area, in a continuation of the egregious losses that started with the unwarranted demolition of the former cathedral. There is a point at which redevelopment becomes highly destructive of the city's distinctiveness. Because it is incremental, it is easy to make the argument that no single step is doing any significant damage. But the damage is done, nonetheless.

**8**  
**cont.**

The mitigations are inadequate. Documentation doesn't really mitigate such losses. Establish a mitigation fund for improving buildings which are retained; consider establishment of some kind of protective zoning or historic district buffer zone to protect areas just to the north of this area, so that the historic Victorians, the First Baptist Church, and the YMCA can survive in a good relationship to each other, and continue to provide visual interest and a feel of connected historic fabric.

**9**

We specifically requested that the DEIR look into the possibility of incorporating the small San Pablo buildings into the project; we regret the refusal to do so, and request that such an alternative be presented as part of the final EIR. In our scoping letter, we said, and we still believe that an adequate EIR must include:

" . . . study alternatives that retain these buildings and the adjoining barbecue restaurant at the corner. These small but interesting buildings can provide visual transition into the project, integrate it better into existing streetscapes and encourage the creative reuse of historic buildings just outside the project area. New residents will appreciate these remnants of their neighborhood's past, and because of their relatively small footprint, it should be possible to include them in the site plan."

**10**

One aspect of sustainability is to re-use extant buildings rather than turning them into landfill. We believe these buildings at 20th and San Pablo could provide a real opportunity to help knit the project into its context, and to provide some historic urban interest in the context of these huge blocks of new construction. It seems eminently possible to include them in the project.

• **THE FOX OAKLAND THEATER: LEAVING SPACE FOR EXPANSION OF BACKSTAGE AREA**

The EIR is incomplete in its remarks concerning the Fox Oakland Theater (page 230). Issues of potential conflict-of-use with adjoining residential properties must be addressed. Any adjacent use must take into consideration the possibility that truck loading and related theatrical activities might occur, including during the late night/early morning hours. This might bring up issues of: noise, pedestrian safety, ease of large truck access. The issues should be addressed now so that we do not build in an intolerable situation either for potential residents or for commercial users of the theater, should it be used for large productions.

**11**

If the 50-foot-wide minimum area left behind the Fox Oakland Theater means that the site for the proposed mid-rise residential structure behind it needs to be moved west, it would be well worth doing so. The proposed high-rise at 18th and San Pablo is not adequately described, and thus should not control the surrounding land uses. Because the true size and scale of this imaginary high-rise are not known, there should be further study; a supplementary EIR should be prepared if and when more information about this project is available. There could be significant visual effects on the Fox Oakland Theater if this building were to be built to the full height contemplated in the DEIR, and we are concerned that it not provide an incongruous background to the Fox Oakland, when viewed from the East and North. The shade

**12**

impacts, Figure IV.L-9 through 12, upon the surrounding buildings, should be considered seriously as a reason to build a lower building.

**12**  
**cont.**

• **UPTOWN BROADWAY: RETAIL BUSINESSES AT RISK**

Missing from the EIR entirely is any discussion of the worrisome potential for the proposed project to draw energy and people from uptown Broadway businesses. It is surely an environmental effect to hasten the development of the Telegraph retail zone at the expense of Broadway.

**13**

• **PARCEL 9: AN EXAMPLE OF "GOOGIE" ARCHITECTURE**

This site is described as an alternate location for the Sears auto center. We suggest that the extant "googie" hamburger stand is of value, and that it has not been addressed seriously in this DEIR. This building and its business occupant might be incorporated into a future development. This period of playful commercial architecture is just beginning to be appreciated and undergo a renaissance; it would be a mark of Oakland's sophistication to include it in the project rather than demolishing it, and the EIR should address this option. Wise promoters of Los Angeles's civic virtues have begun to capitalize on the presence of such home-grown California googie architecture; we can use buildings such as this one to help Oakland seem an attractive and accessible place. This style can prove attractive to just the young, vigorous people we seek to attract.

**14**

• **VIEW IMPACTS**

Designs for new buildings in the vicinity of the former YMCA (no longer owned by YMCA) building (DEIR page 228) should be required to be sensitive to the view corridors, such that views of and from the building are not negatively impacted. Designs in its vicinity should be appropriate to their location near this historic resource. Figure IV.J-4 shows how this building could disappear from the incoming driver if the new buildings come far out to the sidewalk line and do not step back at all from the street. We request a simulation showing a better design solution. Similarly, the view down 20th St., shown as Figure IV.J-5, not only blocks the stack of the Western Power Building but makes an awkward neighbor to the former Magnin's building. The proposed residential tower on block 5 seems particularly ill-located and too tall. We believe that the mitigations in this section, page 257 are woefully inadequate. For this reason, we believe that a supplemental EIR should be required for the later phase, high-rise components of this project. The design mitigations are ridiculously sketchy, through no fault of the EIR preparers, because the projects remain so ill-defined.

**15**

• **LONG TERM BUSINESSES ARE RESOURCES TOO.**

Missing from the EIR entirely is any discussion of the worrisome potential for the proposed project to draw energy and people from uptown Broadway businesses. It is surely an environmental effect to hasten the development of peripheral zones while sucking the life out of the central city.

**16**

In this connection, the DEIR has completely omitted mention of an important potential resource: the currently-closed-off BART access to the basement of Sears, formerly Capwell's. At one time this was an active entrance, which fostered pedestrian traffic through the store, thus increasing the likelihood that people would see and experience what was in the store, and perhaps even purchase goods there. The EIR should study the potential reopening of this link between BART and Telegraph Ave. It was particularly helpful during stormy weather, when it was open, and provides a way to incorporate Sears into the project.

**17**

Moreover, it is outrageous that so much concern is expressed over the potential relocation of the Sears auto center, and so little over the small businesses on 20th Street (and those removed earlier by the city of Oakland redevelopment agency, at 20th and Telegraph). The history of Oakland in recent years would lead one to believe that locally-owned businesses are more likely to stay around than chain businesses (Carter Hawley Hale, K-Mart, Bank of America). Thus, we should support long time local businesses at least as much, and perhaps even more than national businesses, no matter how large they are. Small businesses are the workhorses of the local economy, yet the redevelopment agency persists in treating them in a somewhat cavalier fashion.

18

• SCENIC VISTAS, VISUAL CHARACTER, AESTHETIC RESOURCES

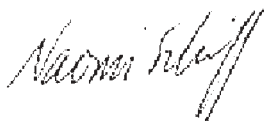
We hold that views of historic buildings can also be scenic (page 242–243). In fact, one of the things Oakland has to offer is an unusual and number of unique and intact buildings of several periods; here in the uptown area we are lucky to have excellent examples of several different styles of architecture. The discussion on page 242 is completely inadequate in ignoring this. In the immediate vicinity of the project, we see a nationally-known example of terra cotta art deco, two excellent examples of early-twentieth century movie palace styles, the unusual Western Power Building, the quaint vernacular commercial buildings at 20th and San Pablo, the 1940s furniture showroom behind the ice rink, the “googie” building mentioned above, the former Mel’s, and so on. These kinds of urban vistas set Oakland apart from some of our less interesting neighbors.

19

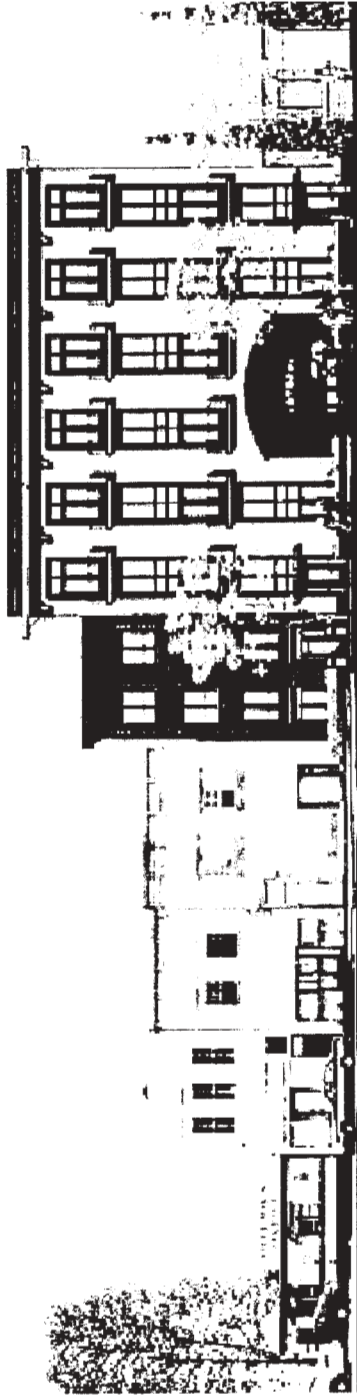
The art deco Floral Depot is so prominent and well-known that it has appeared in magazines, is on various walking tours. A replica was built for the Florida Disney World; OHA has photos available of this amazing reconstruction. The proposed project should be required to have a good design relationship to the important buildings at its edges.

We appreciate the opportunity to comment on this Environmental Impact Report; we look forward to an improved and emended report, and to an excellent Uptown project that allows historic buildings to contribute to its success.

Sincerely,



Naomi Schiff  
Vice President—Preservation Action



View of San Pablo, Thomas Berkeley Way intersection, from the west. Incorporates small historic commercial buildings into proposed residential project.



## COMMENTOR B4

### Oakland Heritage Alliance; Naomi Schiff, Vice President – Preservation Action; November 3, 2003

B4-1: The commentor's opinion is noted regarding the analysis of Blocks 5, 7, 8 and 9. Nonetheless, the EIR authors confirm that the environmental effects of the Project were analyzed commensurate with the level of Project detail available at the time the Draft EIR was published. The recommended mitigation measures in the Draft EIR take this available level of detail into account, and, at the design review stage for individual buildings, require that certain specified standards must be met to avoid or reduce to a level of insignificance any potential significant impacts. For instance, Mitigation Measure WIND-1 (page 261 of the Draft EIR) requires that the final designs of high-rise buildings on Blocks 5 and 7 be reviewed to ensure they are consistent with the specific wind-reducing guidelines that are detailed in the measure. Likewise, Mitigation Measure AES-2a (page 258 of the Draft EIR) requires that the City review the proposed exterior materials of Project buildings to ensure they do not result in additional daytime or nighttime glare.

The Draft EIR analyzed a maximum buildout scenario for the proposed Project. This maximum buildout scenario was utilized to account for all potential environmental effects that could occur as a result of Project implementation. The project description adequately specifies the information critical to assure adequate environmental review, including: number and location of housing units; total commercial square footage that would be developed; the proposed spatial layout of land uses; maximum building height; and the location of parking spaces and new streets. This information allows for a complete analysis of the environmental topics covered in this EIR. Specific building design information is not a necessary input for analysis for most of the environmental topics. As noted above, in those areas where the final design could result in potential impacts, such as wind or aesthetic impacts, the level of information about the Project provided in the Draft EIR is sufficient to evaluate the potential for these impacts to occur and for appropriate mitigation measures to be designed to ensure that significant impacts are avoided or reduced to a level of insignificance. CEQA requires that all potential significant impacts be identified at the earliest possible stage. Accordingly, the Draft EIR assesses the entirety of the proposed Project even though, as is often the case for large projects, detailed building designs have not yet been developed. In the future, if the Project undergoes substantial change that results in new significant environmental impacts or if it is determined that the final design of the buildings has the potential to result in new significant environmental impacts, these circumstances could result in subsequent environmental review in accordance with the provisions of CEQA and the *CEQA Guidelines*. Given that the EIR analyzes the project sponsor's projections for a maximum buildout scenario, it is possible that the final Project could result in less development (i.e. fewer parking spaces, less commercial space, fewer housing units) than analyzed in the EIR.

Once designs for the Project blocks are finalized, they will be evaluated during the City's process for design review and other necessary approvals to determine if they would result in significant environmental impacts that were not adequately analyzed in the Draft EIR. If final Project designs have the potential to result in significant environmental impacts not identified in the Draft EIR, they will be subject to additional environmental review. Therefore, when the designs for Blocks 5, 7, and 8 are finalized, they will be subject to additional evaluation (including design review and other approvals), and, if determined necessary, additional environmental review. However, based on the current level of detail available for the Project, the Project's effects in all environmental topical areas has been fully evaluated.

- B4-2: The developer held community meetings on March 12, October 11, and October 13, 2003. Developer-initiated design and community workshops on the proposed Project are discretionary meetings that are beyond the purview of CEQA or the procedural requirements of the City of Oakland. Therefore, no additional response is necessary. As more detailed designs are developed and design review and other applications are filed, additional community meetings and public hearings may be scheduled, as required by the Zoning Code and Planning Commission.

Public noticing and public hearings for the Project environmental documentation effort exceeded the requirements of CEQA. *CEQA Guidelines* section 15087(i) states: "Public hearings may be conducted on the environmental documents, either in separate proceedings or in conjunction with other proceedings of the public agency. Public hearings are encouraged, *but not required* as an element of the CEQA process" (emphasis added). Even though not required by CEQA, the City held both a scoping meeting (March 19, 2003) and a public hearing on the Draft EIR (October 15) as well as a public hearing before the Landmarks Preservation Advisory Board (October 6). These meetings were publicized in the Oakland Tribune and notices were mailed to: (1) all individuals who requested such notice; (2) all property owners within 300 feet of the Project site (including individuals within the Project site); and (3) the City's public agency mailing list, which includes over 25 public agencies, in excess of CEQA requirements. The scoping meeting and public hearing on the Draft EIR were both publicized more than three weeks before the respective meeting dates.

- B4-3: The Oakland Heritage Alliance's comments regarding the Project's merits and the Alliance's desire to preserve the Great Western Power Building are noted. Impact HIST-5 detailed in the Draft EIR addresses impacts that future development could have on the Great Western Power Building if it is preserved.
- B4-4: Shade created by the proposed Project will not significantly impact those elements of the Great Western Power Company building that render it eligible for the National Register of Historic Places. These elements, which include the building's arched façade, overscaled classical detailing, and 150-foot smokestack, would not be visually obscured by the additional shadows created by the Project. The building lacks complex color schemes or detailed façade elements that would be impacted by the introduction of shade, as described on page 277 of the Draft EIR.



B4-5: Buildings in the entire Project area, including the buildings referenced by this comment, were ranked as part of the Oakland Cultural Heritage Survey. The buildings referenced by this comment received an insufficient rank to qualify as significant or potentially significant, therefore Project impacts to these buildings under CEQA would be less than significant. The Project's consistency with the General Plan Historic Preservation Element policies will be reviewed at the time the merits of the Project are considered by City of Oakland decision-makers.

B4-6: Demolition of the Great Western Power Company Building, which is a local historic resource, was determined to be a significant unavoidable impact in the Draft EIR. Even with the implementation of all potential feasible mitigation measures, this impact would still be significant and unavoidable. *CEQA Guidelines* section 15126.4(a)(4)(A) states that a proposed mitigation measure should be "roughly proportional" to the impacts of the Project. Due to the age and deterioration of many of the remaining historic buildings in the Uptown District, a "substantial funding of improvements to remaining historic buildings" in the District would be very costly (in terms of a percentage of the total Project budget) and would not mitigate the CEQA impact to the Great Western Power Company Building. The City may consider, separate from the EIR and its recommended mitigation measures, requiring payment of pro-rata funds to restore historic buildings in the Uptown District as they have imposed similar conditions on other project approvals.

Mitigation Measure HIST-4a has been revised as detailed below to include a element that would require interpretative elements to be incorporated into the Project.

Mitigation Measure HIST-4a (Variant 1 and 2): The following measures shall be implemented to preserve information about the resource for further study:

- Record the Great Western Power Company Building in accordance with the procedures of the Historical American Buildings Survey (HABS) through measured drawings, written histories, and large-format photographs;
- Prepare a history of the Great Western Power Company Building that incorporates oral history, documentary research, and architectural information;
- Prepare a brochure, regarding the building's historical association with one of three major early 20th century northern California power companies, to be made available at local libraries and museums;
- Incorporate interpretive elements, such as signs and placards, into public areas and street frontages proposed as part of the Project.
- If full demolition of the building occurs, salvage architectural elements from the building, including hardware, doors, paneling, fixtures, and equipment, and incorporate these elements into new construction; and
- Curate all materials, notes, and reports at the OHR, and submit copies to the NWIC.

Even with extensive documentation, however, the demolition of the building or portions of the building would result in the loss of a historic resource that is associated with

significant historical events and is an example of outstanding design and function. Therefore, the demolition or partial demolition of the building would remain a significant and unavoidable impact. (SU)

- B4-7: This Draft EIR is not required to contain justification of the Project applicant's decision to demolish buildings within the Project site, but rather a reasoned evaluation of the environmental impacts resulting from such a proposed demolition. As described on page 45 of the Draft EIR, development on Block 7 would include the development of: (1) a 19-story student housing tower; (2) a five-story parking structure; and (3) a five-story faculty housing building. As described on page 47 of the Draft EIR, implementation of the proposed Project would require the demolition of all existing structures on Blocks 1 through 7, with the possible exception of the Great Western Power Company Building. The environmental impacts of the proposed Project on Block 7 have been analyzed and are addressed in numerous sections of the Draft EIR. Impacts (and associated mitigation measures) HIST-4a, HIST-4b, HIST-4b, HIST-5, WIND-1a, and WIND-1b specifically apply to proposed development on Block 7.
- B4-8: The demolition of the contributory buildings to the 19<sup>th</sup> and San Pablo Commercial District, in concert with the proposed demolition of other district contributors as part of the Thomas L. Berkley Square project, has been identified as a potential cumulative impact in the Draft EIR. The text of the Draft EIR has been revised to provide a more detailed discussion about the potential impacts to this district.

Page 213 of the Draft EIR is revised as shown below:

- *19<sup>th</sup> and San Pablo Commercial District (ASI)*

The 19<sup>th</sup> and San Pablo Commercial District is a Victorian/late 19<sup>th</sup>, early 20<sup>th</sup> century commercial district consisting of 12 buildings on all or part of twelve blocks in the Central Oakland neighborhood. Eight of the 12 buildings are contributors to the district, including the buildings located at 630-42 20<sup>th</sup> Street; 1901-15 San Pablo Avenue; 1917-23 San Pablo Avenue; 1939-63 San Pablo Avenue; 1958-60 San Pablo Avenue; 1966-68 San Pablo Avenue; 1972 San Pablo Avenue; and 2000-8 San Pablo Avenue. Most of the district lies northwest and outside of the Project area. It includes early 20<sup>th</sup> century commercial, Italianate commercial, and Beaux Arts-derivative buildings. The dates of contributing buildings range from the 1870s to the 1940s. Currently, the surrounding areas consist of commercial, residential, and transportation uses. Three of the four buildings identified as PDHPs within the Project area (1958-60 San Pablo Avenue, 1966-68 San Pablo Avenue, and 1972 San Pablo Avenue) are contributors to this district. The 19<sup>th</sup> and San Pablo Commercial District is listed as an ASI by the OCHS.<sup>17</sup>

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<sup>17</sup> City of Oakland Planning Department, Oakland Cultural Heritage Survey, 2000, 1983-85, and 1994-95, op. cit.

Pages 226 and 227 of the Draft EIR are revised as shown below:

**Impacts to Historic Districts.** ~~The~~ Because the 19<sup>th</sup> and San Pablo Commercial District is not currently designated as a Preservation District, it is currently not considered a historical resource under CEQA. ~~For the purposes of CEQA~~ Thus, according to the significance criteria utilized by the City of Oakland, the proposed Project ~~will~~ would not cause a significant adverse impact to the 19<sup>th</sup> and San Pablo Commercial District.

However, ~~for the purposes of CEQA,~~ to account for the possibility of this District being elevated to Preservation District status and to provide the most an extra conservative analysis, the following impact assessment treats the 19<sup>th</sup> and San Pablo Commercial District ~~could be impacted by the proposed Project if:~~ 1) the district is as if it had been elevated to Preservation District status (a type of Designated Historic Property); and 2) the four PDHPs identified in Impact HIST-5 are demolished. However, this impact would be less than significant because the remaining majority of contributing properties would still retain enough of the district's character defining elements to convey its historical significance. Buildings remaining after Project implementation will include the Hotel Arcade, the Hanifin Block, and the Dalziel Block. These remaining buildings include all of the district's primary contributors (the Hotel Royal, Hotel Arcade, and the Hanifin Block), which will continue to retain the district's major character defining elements that reflect turn-of-the-century commercial development in Oakland. These buildings represent styles that include Italianate, Beaux Arts derived, and Classical Revival. They maintain the grandness of scale and ornamentation that characterize what the OCHS described as the "visually distinctive/turn-of-the-century commercial district." The retention of these distinctive buildings allows the district to continue to convey the historical significance of late 19<sup>th</sup>, early 20<sup>th</sup> century commerce in Oakland., which would qualify contributing or potentially-contributing properties within such a district as historical resources under CEQA.<sup>18</sup>

**Impact HIST-7: Project demolition and construction could adversely impact the setting of the 19<sup>th</sup> and San Pablo Commercial District. (SLTS)<sup>19</sup>**

~~If~~ For the purposes of CEQA, the 19<sup>th</sup> and San Pablo Commercial District ~~receives a Preservation District designation,~~ the Project may result in a significant impact to the district's setting. However, OCHS documentation indicates that the district's integrity of setting has been diminished by surrounding uses that "differ in use and visual coherence" from the district's contributing buildings. Therefore, the Project's effects on the setting of the 19<sup>th</sup> and San Pablo Commercial District

<sup>18</sup> Elevation of the 19<sup>th</sup> and San Pablo Commercial District to Preservation District status is a discretionary measure that could only occur after a number of actions are complete, including nomination of the District by a qualified individual or land owner, as well as approval by the Planning Commission and City Council. Even so, attainment of Preservation District status would not prohibit the demolition of contributing structures within the District.

<sup>19</sup> This change in the designated significance of the impact does not affect the findings or analysis contained in the Draft EIR. This revision was made to correct a text error in the Draft EIR. The discussion following this designation in the Draft EIR clearly indicated that Impact HIST-7 was less-than-significant.

would not significantly impair the district's integrity could be adversely impacted by the proposed Project if: 1) the district is elevated to Preservation District status (a type of Designated Historic Property); and 2) the three contributing PDHPs located at 1958-60 San Pablo Avenue, 1966-68 San Pablo Avenue, and 1972 San Pablo Avenue as identified in Impact HIST-6 are demolished. However, this project-level impact would not be considered significant as it would only result in the demolition of three of the District's eight contributing buildings and the remaining contributing buildings would still retain enough of the District's character-defining elements to convey its historical significance. Buildings remaining after Project implementation would include the Hotel Arcade, the Hanifin Block, and the Dalziel Block. These remaining buildings, which are located on blocks outside of the Project area, include all of the District's primary contributors (the Hotel Royal, Hotel Arcade, and the Hanifin Block). These primary contributors will continue to retain the District's major character-defining elements that reflect turn-of-the-century commercial development in Oakland. These buildings represent styles that include Italianate, Beaux Arts-derived, and Classical Revival. They maintain the grandness of scale and ornamentation that characterize what the OCHS described as the "visually distinctive/turn-of-the-century commercial district." The three contributing PDHPs within the project site are less character-defining than the other contributing buildings within the District. The retention of the remaining distinctive buildings would allow the District to continue to convey the historical significance of late 19<sup>th</sup>, early 20<sup>th</sup> century commerce in Oakland. Thus the project's impact to this District would be considered less-than-significant and not require any mitigation.

Mitigation Measure HIST-7: No mitigation measure is necessary to address this ~~the~~ less-than-significant impact. (LTS)

**Impact HIST-8: Project demolition and construction could result in a significant cumulative impact on the 19<sup>th</sup> and San Pablo Commercial District. (S)**

The demolition of the ~~four PDHPs~~ three PDHPs located at 1958-60 San Pablo Avenue, 1966-68 San Pablo Avenue, and 1972 San Pablo Avenue identified in Impact HIST-~~5~~ 6 may result in a significant cumulative impact when considered with ~~other projects that causing related impacts~~ the Thomas L. Berkley Square project. The Thomas L. Berkley Square Project, located across Thomas L. Berkley Way (20<sup>th</sup> Street) from Project Block #1, proposes the demolition of two contributing properties of the 19<sup>th</sup> and San Pablo Commercial District (the Hotel Royal Building and the California Peanut Company Building). The impact of the Uptown Mixed-Use Project, while ~~incremental~~ less than significant when considered alone, will contribute to a cumulatively significant impact when considered with the impacts of the Thomas L. Berkley Square Project. If both projects are implemented as proposed, ~~six~~ five of ~~nine~~ eight contributing buildings (63%) of the 19<sup>th</sup> and San Pablo Commercial District will be demolished. This would result in a significant, ~~unavoidable~~ cumulative impact to the 19<sup>th</sup> and San Pablo Commercial.

Implementation of the following mitigation measure, which involves preserving the PDHPs that contribute to the 19<sup>th</sup> and San Pablo Commercial District, if it determined to be feasible would avoid the Project's cumulative adverse impact to the District.

Mitigation Measure HIST-8a: If feasible, the three PDHPs that contribute to the 19<sup>th</sup> and San Pablo Commercial District (located at 1958-60 San Pablo Avenue, 1966-68 San Pablo Avenue, and 1972 San Pablo Avenue) shall be preserved in their existing condition or rehabilitated and incorporated into the proposed Project. Any modifications to the exterior of the buildings that may be proposed as part of their rehabilitation shall be developed in consultation with the Planning Department and a qualified historic preservation architect to determine an appropriate treatment strategy that preserves the important historic qualities of the structures. (LTS)

The implementation of Mitigation Measure HIST-8a would reduce the cumulative loss of contributing district buildings from 5 out of 8 (63%), to 2 out of 8 (25%). The Project sponsor and the City are in the process of determining whether or not it is feasible to preserve these buildings. If the City makes a determination that it is not feasible to preserve these buildings, the buildings may be demolished as part of the proposed project and a significant unavoidable impact would result.

Mitigation Measure HIST-8b: If the City determines that preservation of the three PDHPs that contribute to the 19<sup>th</sup> and San Pablo Commercial District (located at 1958-60 San Pablo Avenue, 1966-68 San Pablo Avenue, and 1972 San Pablo Avenue) is not feasible, the City shall inform the applicant for the Thomas L. Berkley Square Project of the potential cumulative impact prior to the implementation of the Uptown Mixed-Use Project. The City shall consult with both project applicants to establish a fair division of responsibility to fund mitigation measures to preserve information about the 19<sup>th</sup> and San Pablo Commercial District for future study. These mitigation measures shall include the following:

- Record the 19<sup>th</sup> and San Pablo Commercial District in accordance with the procedures of HABS through measured drawings, written histories, and large-format photographs;
- Prepare a history of the 19th and San Pablo Commercial District that incorporates oral history, documentary research, and architectural information; this history could utilize non-written media and production techniques, including video photography;
- Prepare a brochure, regarding the district's historical association with turn-of-the-century Oakland commerce, to be made available at local libraries and museums;

- Salvage architectural elements from the buildings proposed for demolition, including hardware, doors, paneling, fixtures, and equipment, and incorporate these elements into new construction; and
- Curate all materials, notes, and reports at the OHR, and submit copies to the NWIC.

Even with extensive documentation, however, a cumulative impact will result from the demolition of ~~66~~ 63 percent of the 19<sup>th</sup> and San Pablo Commercial District's contributing buildings. This loss of contributing buildings will materially affect the district's ability to convey its historical significance, which will result in a significant, unavoidable cumulative impact. (SU)

- B4-9: Refer to Response to Comment B4-8. The mitigation measure for impacts to the San Pablo and 19<sup>th</sup> Commercial District contains standard mitigation methods for minimizing impacts to architectural resources (e.g., large-format photographs, oral history, history brochure, salvaged architectural elements, archival management of documentation; interpretive public display of the resource's significance, etc.). The establishment of a preservation fund or buffer zone are not necessary to address any of the CEQA impacts identified in the EIR; these are policy issues that the City may consider at its discretion, as part of or separate from consideration of this Project.
- B4-10: Refer to Response to Comment B4-8. As described on page 1 of the Draft EIR, the Draft EIR is a Focused EIR prepared pursuant to CEQA section 21159.25 (also referred to as AB 436). In such an EIR, no discussion is required of alternatives to the Project, cumulative impacts of the Project, or growth inducing impacts of the Project. Therefore, the Draft EIR is not required to include an evaluation of Project alternatives. Nonetheless, preservation of these buildings is included as a mitigation measure. The City and the Project sponsor are examining the feasibility of this mitigation measure. The buildings referenced by the comment or have been assigned status rankings by the OCHS, and do not meet the CEQA definition of historical resources. Therefore, the demolition of these buildings as part of the proposed Project will not result in a significant impact to historical resources under CEQA.
- B4-11: The discussion of the Fox Oakland Theater on page 230 of Section IV.I, Historic Architectural, Archaeological and Paleontological Resources, is only intended to address the proposed Project's impacts on the historic significance of the Fox Oakland Theater. The Project's effects on adjacent uses including the Fox Oakland Theater were considered in other topical sections, including Land Use and Noise. However, based on the significance criteria utilized for each of these topics, it was determined that the proposed Project would not result in any significant impacts to surrounding land uses, including the Fox Oakland Theater as it currently exists.

Consideration of the Uptown Project's impacts on the Fox Oakland Theater in a future condition that would be subject to discretionary approval by the City of Oakland is not

required to be considered pursuant to CEQA. Section 15126.2, Consideration and Discussion of Significant Environmental Impacts, of the *CEQA Guidelines* states that:

*An EIR shall identify and focus on the significant environmental effects of the proposed project [i.e., the Uptown Project]. In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced.*

At the time the NOP was issued (February 26, 2003), the Fox Oakland Theater was not operating as a performing arts venue. The reestablishment of performing arts venues would require discretionary approval(s) from the City of Oakland when such a project is proposed. Therefore, consideration of such a project at this time would be speculative and not consistent with the requirements of CEQA since the theater is not currently operating as such and approval of such a project would be dependent upon a variety of factors, including community and political support, and the allocation and availability of necessary public funding. However, the following discussion is included to provide some information about what impacts could result from implementation of a future project that involved reestablishment of the Fox Oakland Theater as a performing arts venue.

There is no “inherent” or “intrinsic” land use conflict associated with siting residential uses next to the theater even if it were to operate as a performing arts venue (in the future). In San Francisco, for instance, multi-story apartment buildings coexist with theater buildings in many of the City’s most vibrant neighborhoods. The success of a mixed-use district is often enhanced by such a juxtaposition of land uses.

Reestablishment of the theater as a performing arts venue could result in periods of significant operational noise, if theater uses involve loading and unloading activity between the hours of 10:00 p.m. and 7:00 a.m. Such impacts could adversely affect residential uses that will be developed as part of the Uptown Project. The City of Oakland’s Noise Ordinance identifies maximum allowable operational noise levels ( $L_{max}$ ) at the property line of receiving land uses. The  $L_{max}$  for receiving residential uses is 80 dBA between 7 a.m. and 10 p.m. and 65 dBA between 10 p.m. and 7 a.m. Reestablishment of the Fox Oakland Theater could result in  $L_{max}$  of up to 75 dBA at the proposed residential uses within Block 5. Such noise levels would not exceed the 80 dBA daytime noise threshold, but would exceed the 65 dBA nighttime noise threshold.

To initiate theater operations, the Fox Oakland Theater would be required to procure a Conditional Use Permit from the City. Depending upon the theater’s intended hours of loading and unloading, the City may impose conditions of approval that would reduce the  $L_{max}$  experienced at the property line of the Uptown Mixed Use Project site to levels that are below the thresholds identified in the City of Oakland Noise Ordinance. These conditions of approval may include the construction of structural features, such as a sound barrier, that reduce maximum noise levels. The conditions of approval imposed by the City would ensure that residents living within the Uptown Project would not be exposed to unacceptable nighttime noise levels.

Pedestrian access into the Project site from 18<sup>th</sup> Street would be via sidewalks along the proposed street between the theater and Block 6. Theater operations would not compromise pedestrian safety. In addition, the 50-foot-wide reserve area adjacent to the theater would ensure that normal theater operations, including truck access, could occur without adversely affecting surrounding uses.

- B4-12: The Draft EIR, based on Project details that were available at the time the document was prepared, anticipates that the proposed Project design would be refined prior to approval of a Final Development Plan for each phase of the Project. Mitigation Measure AES-1 is designed to ensure that the final design of proposed high rise buildings would not adversely affect the architectural character of the Uptown District. All aspects of these buildings that could result in significant environmental impacts have been analyzed in the Draft EIR. As noted in Response to Comment B4-1, if the Project undergoes substantial change that results in new significant adverse impacts, it could be subject to subsequent environmental review, pursuant to the provisions of *CEQA Guidelines* section 15162.

The size and scale of the proposed high-rise building on Block 5 are reflected in the visual simulations for the proposed Project that are included in the Draft EIR. Specifically, Figures IV.J-6, IV.J-7, and IV.J-8 depict the 19-story tower on Block 5. These visual simulations represent the maximum height of the structure as presented in the Draft EIR. The 19-story tower would be separated from the Fox Theater by buildings of five stories which would provide a visual transition between the Fox Theater and the proposed high-rise building, and would ensure that the visual character of the theater is not adversely affected by the proposed Project. As described on page 277 of the Draft EIR, implementation of the proposed Project would not cause shadows to be cast on the Fox Theater. This condition is verified by the shadow simulations prepared for the Project, which are provided as Figures IV.L-1 through IV.L-12 of the Draft EIR.

- B4-13: Refer to Master Response M-2 on page 18 of this document.
- B4-14: The Kwik Way site has been removed from the Project area (see Chapter II of this document). As a result, this building will not be demolished or otherwise adversely affected by the proposed Project.
- B4-15: Visual simulations of the proposed Project were prepared to illustrate the appearance of the proposed buildings and their relationship to the street. Preparing visual simulations that recommend new design treatments where no significant environmental effects would occur, as recommended by the commentor, is not required by CEQA. Instead, CEQA requires the lead agency to recommend mitigation measures only when a project would result in a significant environmental impact. Although the viewsheds down Thomas L. Berkley Way (20<sup>th</sup> Street) and Telegraph Avenue (Figures IV.J-5 and IV.J-4) include the Fox Theater, the former YMCA building, and the I. Magnin building, they also include less scenic elements, such as parking lots, modern light posts, and post-war office buildings. Therefore, these viewsheds are not considered to be "scenic," and the introduction of additional structures as substitutes for less scenic elements of these viewsheds would not constitute a significant adverse impact to a scenic resource. The redevelopment of



vacant lots and surface parking areas that would occur as a result of the proposed Project would result in a beneficial effect on visual character in the Uptown District, because it would assist in the restoration of the historic urban development pattern of uninterrupted blocks.

The placement of high rise buildings next to medium-sized buildings does not, in and of itself, represent a significant impact to visual resources. In many major urban centers, including Oakland, the construction of high-rise towers next to lower-rise buildings has created a more interesting and complex visual environment that results in varied silhouettes along the skyline. Mitigation Measure AES-1 would ensure that the proposed architectural treatment of Project buildings is visually consistent with surrounding buildings. This mitigation measure requires physical changes to the proposed Project and is considered adequate to reduce the proposed Project's impact on visual resources to a less-than-significant level.

B4-16: Refer to Master Response M-2 on page 18 of this document.

B4-17: The BART access referred to by the commentor is not within the Project site or part of the proposed Project. The reopening of this access is not required to reduce a significant environmental effect of the Project. No further response is needed. However, this comment will be considered by the decision-makers during the review of the merits of the Project.

B4-18: Refer to Master Response M-2 on page 18 of this document.

B4-19: Refer to Response to Comment B4-15. As described in that response, although the viewsheds along streets around the Project site contain a variety of buildings, including historic structures such as the Fox Theater, YMCA, and the I. Magnin buildings, these views are not considered to be "scenic." The architectural landmarks mentioned in the comment would not be adversely affected by implementation of the proposed Project, as described on page 228 of the Draft EIR.

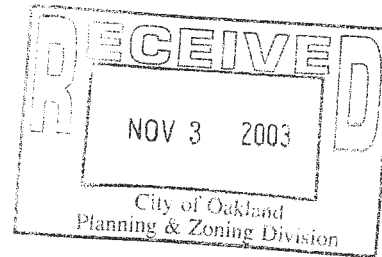


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**Northern Alameda County Regional Group**  
(Alameda-Albany-Berkeley-Emeryville-Oakland-Piedmont-San Leandro)  
2530 San Pablo Avenue, Suite I, Berkeley, CA 94702  
510-848-0800 (voice) · 510-848-3383 (fax)

November 3, 2003

Lynn Warner, Planner IV  
City of Oakland  
Community and Economic Development Agency  
Planning Division  
250 Frank H. Ogawa Plaza, Suite 3330  
Oakland, CA 94612



By fax to: 510-238-6538

Re: Comments on DEIR for Uptown Mixed-Use Project (Case No: ER03-0007)

Dear Ms. Warner:

We are writing on behalf of the Sierra Club, including approximately 5,000 members who are residents and property owners in Oakland. We support infill, mixed-use, relatively dense development within existing urbanized areas that encourages transit use, walking, and bicycling and that minimizes private automobile use. We believe that infill development will help to counteract sprawl and improve the environment and the quality of life for all Bay Area residents.

The relatively dense mixed-use proposal for Uptown Oakland has the potential for revitalizing Oakland's urban core and invigorating the Uptown Entertainment District. Its location near a regional transit node is propitious. The Entertainment District can draw from the whole region, and residents of the proposed project can have access to the region without cars. However, the site planning must be such that residents can have quiet enjoyment of their homes while others are enjoying the lively arts. The possible conflict between these uses has not been addressed in the DEIR.

A key issue of concern to us is that location of the open space should also be studied as part of the site planning. This may be considered a design issue rather than a comment on the Environmental Report, but the location and design of the open space will significantly affect the social environment of this new community. The present location of the planned open space might be appropriate in a suburban community surrounded by similar residential uses. But that is not the case with the Uptown project.

Safe open spaces are ones that can be completely viewed by a cruising police car. We strongly recommend consideration of a linear park along Telegraph Avenue from 19<sup>th</sup> to 20<sup>th</sup> St. This would be a defensible space and also a potential festival space for the Entertainment District. Placing the open space along Telegraph Avenue bordered by mid-rise mixed-use structures on the west between the lower rise residences and the entertainment area would create a buffer between the two uses. Oakland does not have anywhere near the problem of panhandlers and the homeless sleeping on benches and in doorways that San Francisco has.

A wide "piazza" along Telegraph Avenue with cafes, restaurants, book and record stores, and a market hall would create an exciting pedestrian destination. It would give a sense of place, an outdoor living room, for both the residential community and visiting theatergoers. This "piazza" would be lively with students,

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day and night, if the graduate student housing is built at 20<sup>th</sup> and Telegraph. In fact, this adjacent open space would make the site more attractive for student housing.

In summary, relocation of the open space along Telegraph Avenue should be studied for the following reasons:

- It would be safer, day and night, and so encourage use.
- It would encourage commercial development along Telegraph Ave.
- Students would have a place to meet and socialize.
- It would provide a festival space for the entertainment district.
- It can resolve the possible conflict between residential and entertainment uses.
- An attractive space adjacent to public transit will encourage the use of transit.
- It would take advantage of our Mediterranean climate and encourage outdoor activities.

Thank you for your consideration of the Sierra Club's views on this important project. We commend the City of Oakland for encouraging new infill development of this kind, which can make an important difference in the vitality and attractiveness of Oakland.

  
Joyce Roy  
Co-chair  
Conservation Committee

  
William J. Smith  
Co-chair  
Conservation Committee

**2**  
**cont.**

## **COMMENTOR B5**

**Sierra Club, Northern Alameda Regional Group; Joyce Roy, Co-Chair, Conservation Committee and William J. Smith, Co-Chair, Conservation Committee; November 3, 2003**

- B5-1: A detailed noise analysis was completed for the proposed Project, and is discussed in Section IV.F., Noise, of the Draft EIR. This noise evaluation indicates that construction activities, local traffic, and on-site stationary sources could result in the generation of noise that would exceed acceptable noise thresholds. However, with the implementation of recommended Mitigation Measures NOISE-1, NOISE-2, and NOISE-3, noise within the Project site would be reduced to a less-than-significant level. Noise impacts resulting from the use of the Fox Theater as a performing arts venue would be less than significant, as described in Response to Comment B4-11. Arts and residential uses are considered to be compatible land uses, and are located in close proximity to one another in many successful urban neighborhoods.
- B5-2: Comment noted. The location of the proposed open space area is not directly related to a discrete physical environmental impact, and design suggestions such as those offered in the comment do not serve to reduce any forecast adverse environmental impact. As such, changes to the Draft EIR are not necessary. These comments regarding the location of the park will be considered by City of Oakland decision-makers during review of the merits of the Project.

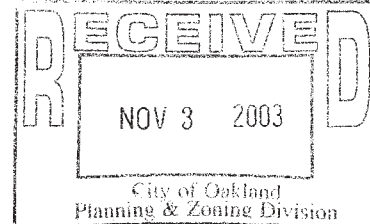
URBAN ECOLOGY



414 13th Street, Suite 500, Oakland, CA 94612 Tel 510.251.5330 Fax 510.251.2117 www.urbanecology.org

November 3, 2003

Lynn Warner, Planner IV  
City of Oakland  
Community and Economic Development Agency  
Planning Division  
250 Frank Ogawa Plaza, Suite 3330  
Oakland, CA 94612



Dear Ms. Warner:

In 1998, the Oakland City Council adopted a Sustainable Community Development Initiative, with the goal of promoting social equity, environmental responsibility, and economic vitality in City and private projects. At the heart of downtown Oakland, the Uptown Mixed Use Project will bring more than 2,500 new residents to an area now characterized by parking lots. Ensuring that Uptown is developed sustainably would demonstrate the City's ongoing commitment to these principles.

In the Uptown draft environmental impact report, the developers note that as an infill, transit-oriented project, Uptown is consistent with Oakland's Sustainable Development Initiative. This is certainly true. However, Urban Ecology believes that the EIR and Uptown Partners should make a specific and verifiable commitment toward employing environmentally sustainable building and design techniques.

Urban Ecology has prepared a list of six low-cost or no-cost strategies that can significantly reduce construction-related waste and improve the quality of life for future residents of Uptown. In addition, these techniques are logical means for the developers to mitigate significant environmental impacts of the project, particularly in relation to air pollution, water quality, hazardous materials, and aesthetic resources.

The current Uptown proposal has improved significantly since it was first introduced. While it is important to move the project along, it is equally important to make sure it is done right. Urban Ecology believes that a greener Uptown will benefit everyone, and we hope that resource-efficient building strategies will be incorporated into the final EIR.

Sincerely,

Nathan James

# 6 Steps Towards a Greener Uptown

“Green Buildings” are structures that are built, renovated, operated, or reused in an ecological and resource-efficient manner. They are a major contribution to improving environmental sustainability and they can be used in the marketing and public relations effort for new development. Employing green building techniques in a prominent project like the Uptown development is a powerful way to demonstrate the City of Oakland’s commitment to sustainability. Using these six no-cost or low-cost strategies would significantly reduce waste and toxicity for the City of Oakland and improve the quality of life of the new residents of Uptown:

## 1. Reduce Water Usage for Landscaping by 50%

Reducing water consumption reduces maintenance expenses as well as decreasing the strain on California’s fragile water resources. By specifying plant species with low water needs that are appropriate for Northern California’s dry climate, Forest City could significantly reduce water used for landscaping and the amount of pollutants that run off into Bay Area water streams. Another landscape strategy that effectively reduces water consumption and costs is the installation of highly efficient drip irrigation systems.

## 2. Use Low-Emitting Building Materials

Poor indoor air quality, caused by the offgassing of chemicals found in many building materials, contributes to high levels of respiratory disease in American children. Specifying low-emitting and formaldehyde-free paint, wood finishes, adhesives, sealants, insulation, carpets, and boards decreases the amount of toxic compounds in the air of the homes of future Uptown residents. Forest City should demonstrate to the City of Oakland that it plans to incorporate these low-emitting materials in the Uptown Development.

## 3. Exceed Title 24 Energy Standards by 15%

Although California’s Title 24 energy performance standards are some of the strongest in the nation, the City of Oakland supports development projects that exceed these standards. Improving energy efficiency is an economically effective choice for the residents of the new Uptown development: lowering utility expenses allows tenants to enjoy minimized financial burdens for years to come. There is a wide range of techniques that improve energy efficiency, but first steps usually involve adding wall and ceiling insulation, installing double-glazed or low-emissivity (low-E) windows, and upgrading to efficient household appliances. Other options to consider include plumbing for natural gas heating, providing hard-wiring for compact fluorescent light bulbs, and adding overhangs to south-facing windows. The Uptown project could be even more energy efficient with the installation of solar water heaters and photovoltaic panels.

## 4. Divert 75% of Construction Waste from Landfills

Construction waste, such as wood, drywall, metal, concrete, dirt, and cardboard, fill millions of cubic feet of California’s landfills each year. Managing this construction waste can be as simple as identifying the types and quantities of waste that will be available and contacting local recycling facilities, youth build programs, or community build groups (like Habitat for Humanity) to identify the conditions required for recycling or donating construction materials. Generally, space at the construction site also needs to be allocated for recycling collection.

## 5. Use Recycled Content Materials for Construction

Four common ways to incorporate recycled construction materials in a project are: re-using form boards when pouring concrete, using recycled content siding (“hardboard”), using concrete with flyash, and using recycled content rubble for backfill around building foundations. Additionally, many interior building materials like gypsum board, linoleum flooring, and carpeting are now produced with recycled content. On a related note, the substitution of engineered lumber for solid sawn lumber significantly decreases a building’s impact on the Bay Area’s old growth forests, since engineered lumber uses smaller-diameter and faster-growing plantation trees. Forest City should demonstrate its commitment to sustainability for the City of Oakland by resolving to specify recycled content materials in the Uptown Development.

## 6. Provide Views and Natural Daylighting in 75% of Indoor Spaces

Giving Uptown residents access to natural light and views will dramatically improve their quality of life, and also reduce their energy demands, since they will less often need to turn on electric lights. Effective daylighting strategies often include skylights and clerestory windows, which provide natural light from above, and vertically-oriented windows, which offer an even distribution of light across a room.

## Notes and Further Resources

### Goal 1: Reduce Water Usage for Landscaping by 50%

- The East Bay Municipal Utility District publishes *Water Conserving Plants and Landscapes for the Bay Area*, an award-winning resource for selecting drought-tolerant plants. For a copy, send \$15 to EBMUD Water Conservation Division, 2130 Adeline Street, Oakland, CA 94607-4240.

### Goal 2: Use Low-Emitting Building Materials

- The "Green Seal" program is an independent, non-profit certification system for green building products. They produce and regularly update lists of low-emitting paints and coatings, and offer investigative reports about particleboard, fiberboard, and lighting fixtures. These lists and reports can be found at <http://www.greenseal.org/>

### Goal 3: Exceed Title 24 Energy Standards by 15%

- More information about California's Title 24 Standards can be found at <http://www.energy.ca.gov/title24/index.html>
- The City of Oakland's Energy Efficient Design (EEDA) Program offers free assistance in energy reduction for new construction projects. Contact Christine Vance at (510) 482-4420 or see [www.oaklandenergypartnership.com](http://www.oaklandenergypartnership.com) for more details.

### Goal 4: Divert 75% of Construction Waste from Landfills

- To obtain a building permit for new construction in Oakland, applicants are required to submit a Waste Reduction & Recycling Plan (WRRP) that demonstrates how the project will reuse or recycle 50% or more of all construction and demolition debris.
- Many Bay Area developers find that recycling construction waste ends up costing less than the transportation and dumping fees to take it to landfills on the urban fringe.
- Projects that deliver loads to facilities that are specifically designed to receive, sort, and recycle mixed construction and demolition debris are eligible for a \$10/ton rebate from the Alameda County Waste Management Authority. Contact Tom Padia at (510) 614-1699 or [tpadia@stopwaste.org](mailto:tpadia@stopwaste.org) for further details.
- For more information, contact Patrick Hayes, Recycling Specialist at the City of Oakland Public Works Department, at (510) 238-6920 or [phayes@oaklandnet.com](mailto:phayes@oaklandnet.com)

### Goal 5: Use Recycled Content Materials for Construction

- The State of California Integrated Waste Management Board maintains a list of recycled-content building materials. The searchable database, along with other reference materials, is available for free at <http://www.ciwmb.ca.gov/condemo/>
- The Alameda County Waste Management Authority maintains a list of locally available green building materials, [http://www.stopwaste.org/Resource\\_Guide.pdf](http://www.stopwaste.org/Resource_Guide.pdf)

### Goal 6: Provide Natural Daylighting in 75% of Indoor Spaces

- The California Public Utilities Commission's Energy Design Resources program offers many resources to help with designing for daylight. See <http://www.energydesignresources.com> for more information.

The City of Oakland's Sustainability Coordinator offers free technical assistance programs to help implement these or other green building strategies. For more information, please contact Carol Misseldine at (510) 238-6808 or [cmiseldine@oaklandnet.com](mailto:cmiseldine@oaklandnet.com)

This fact sheet was produced for informational purposes by:



and

URBAN ECOLOGY



## **COMMENTOR B6**

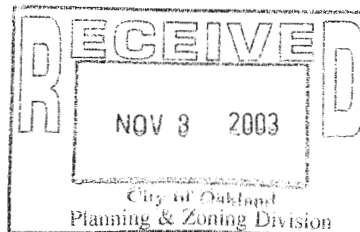
**Urban Ecology; Nathan James; November 3, 2003**

- B6-1: *CEQA Guidelines* section 15126.4(a)(3) states: "Mitigation measures are not required for effects which are not found to be significant." Although the six goals listed by the commentor could enhance the sustainability of the proposed Project, these measures do not relate to and would not reduce any of the Project's significant environmental impacts. In addition, the proposed Project already includes provisions for the incorporation of drought-tolerant plantings, the reduction of construction waste, and the utilization of natural light to illuminate building interiors. Nonetheless, the recommended sustainability goals are noted and will be considered by the Project applicant and City of Oakland decision-makers during the review of the merits of the Project.



## C. INDIVIDUALS

City of Oakland Community and Economic Development Agency  
Planning Division,  
250 Frank H. Ogawa Plaza, Suite 3330,  
Oakland, CA 94612



Attention: Lynn Warner, Planner IV

October 31, 2003

Re: Uptown Mixed-Use Project Environmental Impact Report

Dear Ms. Lynn Warner:

My name is Chungkei Tony Fung. I am the operating owner of The Autohouse Car Repair on 565 20<sup>th</sup> Street. I also own the property of 565 20<sup>th</sup> Street. We have been at this location since 1992. Besides being a full service garage, we are also a State certified Smog Check Station. In the proposed map, my property is in block 1 of the Uptown Mixed-Use Project. In this Drafted Environmental Impact Report, there is no mention of environmental impact of relocation of the existing small business like mine.

In the beginning of the year, Community and Economic Development Agency opened the dialogue of acquisition of my property. I was told by different sources, that we would not be relocated within the proximity of this project because of the recent change in zoning. Most of my clients work in the downtown office buildings or travel by BART. Therefore, the survival of my business is location depended. And my present location is ideal. If I were relocated away from the downtown office buildings and from BART, I would virtually be forced out of business. And it will be detrimental for my family and myself.

I feel strongly that it is to the best interest of the Uptown Mix-Use Project, the community and the City of Oakland to include the existing business like ours in the overall planning. We believe that we are providing a vital service to the community and tax revenue to the city and the county. This proposed project adds 1000 apartments and 1050 student living units. These residents need auto repair service. It would have negative environmental impact to exclude us from this project.

This letter is an addition to my verbal comments at the public meeting by Oakland Planning Commission conducted on October 15, 2003 in Hearing Room #1 in City Hall.

Sincerely,

Chungkei Tony Fung, Owner  
The Autohouse Car Repair  
565 20<sup>th</sup> Street  
Oakland, CA 94612  
510-893-5123

1

2

**COMMENTOR C1**

**Chungkei Tony Fung, Owner, The Autohouse Car Repair; October 31, 2003**

C1-1: Refer to Master Response M-2 on page 18 of this document.

C1-2: Refer to Master Response M-2 on page 18 of this document.

**Cappio, Claudia**

---

**From:** Colland@aol.com  
**Sent:** Monday, November 03, 2003 3:03 PM  
**To:** ccappio@oaklandnet.com  
**Subject:** Uptown Mixed Use Project DEIR

Ms. Cappio:

As I indicated in the October 15 planning commission hearing, I want to again express my concerns about traffic and pedestrian safety impacts the Uptown Mixed Use Project will have on Oakland Chinatown.

The absence of intersections in the heart of Chinatown has to be addressed given the importance of Chinatown streets for local and regional travel. As indicated in the Uptown Mixed Use Project DEIR, Chinatown streets are recognized as being an integral part of the circulation network for this project (9% of local traffic through Chinatown with an additional 3% along Lower Broadway).

It is necessary and prudent to study and measure the cumulative impacts this project as well as the impacts that the Jack London Square Redevelopment and Alameda Point projects will contribute. Only by doing so will we have a workable means to formulate and execute mitigation measures for this Oakland neighborhood.

Respectfully submitted,

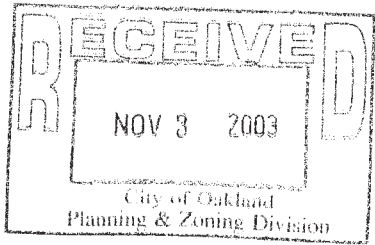
Colland Jang, City of Oakland Planning Commissioner

1

## **COMMENTOR C2**

**Colland Jang, City of Oakland Planning Commissioner; November 3, 2003**

- C2-1: Refer to Responses to Comments A2-2 that explains the cumulative analysis that was undertaken in the Draft EIR and the methodologies for determining what intersections were analyzed in the Draft EIR. Also refer to Responses to Comments B3-7, B3-8 and B3-9.



November 3, 2003

Delivered By Hand

City of Oakland  
Community and Economic Development Agency  
Planning & Zoning Services Division  
250 Frank H. Ogawa Plaza, Suite 3330  
Oakland, CA 94612-2032

Attn: Lynn Warner

Re: Uptown Mixed Use Project  
Environmental Impact Report

We are a certified small local business with offices at 593 20<sup>th</sup> Street, Oakland, CA. Our firm has been in the City of Oakland doing business since 1996, and earlier when the undersigned and other colleagues were with a Disabled Veteran Business Enterprise. We do City of Oakland projects and other public and private projects.

The proposed Uptown Development, if implemented, will affect our ability to remain functional and some City projects will likely be affected. The Environmental Impact Report does not address the presence nor does it address the impact on our business and other businesses on 20<sup>th</sup> Street. This is unprofessional and is in direct contradiction to the City's policy of encouragement of small business.

1

When the property transferred hands from the then landlord to the City, we were offered the first choice in buying the property. We did not choose to take the opportunity in view of the uncertainty. The project has now it seems has become a reality and our opportunity to procure was a missed one.

We hereby lodge our protest over the negligent and insufficient report. We would appreciate discussing the impact on our business, financially and otherwise, and the steps for the mitigation thereof.

Sincerely,

Shamir K. Mondle, P.E.  
Chief Engineer/Member  
SKM Consulting Engineers LLC

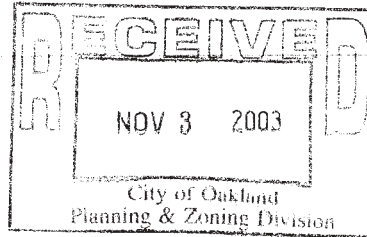
**COMMENTOR C3**

**Shamir K. Mondle, P.E., Chief Engineer/Member, SKM Consulting Engineers LLC;  
November 3, 2003**

C3-1: Refer to Master Response M-2 on page 18 of this document.

**Warner, Lynn**

**From:** Nadel, Nancy  
**Sent:** Monday, November 03, 2003 1:34 PM  
**To:** Warner, Lynn  
**Subject:** Comments on Uptown Mixed-Use Project



Historic Properties and Archaeological Artifacts:

A graduate student has brought to my attention the fact that historic Chinatown was at the site in the 1860s (17<sup>th</sup> and Telegraph) and the city made them relocate after a major fire to San Pablo between 19<sup>th</sup> and 20<sup>th</sup> in the 1880s. She states that the buildings on San Pablo slated for demolition might be part of this historic Chinatown and that there might be valuable artifacts of that culture in the vicinity of those buildings. It therefore appears appropriate that we look for an opportunity to relocate at least one of those wooden buildings below 20<sup>th</sup> on San Pablo (perhaps somewhere in the current Chinatown area) that could then be used to exhibit whatever artifacts might be uncovered. If this is not feasible, we should, at minimum, excavate carefully so that artifacts are not destroyed and make them available for the public either at the Asian Cultural Center or other existing city facility that could exhibit them to retain the cultural heritage of the Chinese population at that time which was evidently displaced several times by the city. There is no mention in the report at all about this aspect of the area's history.

1

Traffic Circulation:

Trans-11 "Significant Unavoidable" impacts is the term applied to the area at the West Grand, Frontage Road and Mandela freeway entrance. Another new large development with equal or more units is proposed for the West Oakland area in the near future at Central Station between 10<sup>th</sup> and West Grand on Wood and Frontage Road. There is no cumulative analysis for this problem. In fact there appears to be no cumulative impact analysis at all in this document. Since the writers of the document claim that it would be too costly and complicated to widen the CALTRANS Road, nothing is proposed. Instead, it appears appropriate that the developer should contribute to a fund with the developer of the Central Station site to add to CALTRANS funds to expand that roadway which already has severe backups at rush hour.

2

Thank you,

Nancy J. Nadel  
Vice Mayor  
City Council District 3



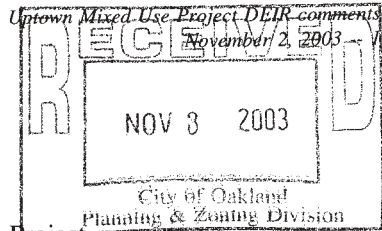
#### **COMMENTOR C4**

**Nancy J. Nadel, Vice Mayor, City Council District 3; November 3, 2003**

C4-1: Refer to Master Response M-1 on page 14 of this document.

C4-2: The transportation analysis of the Year 2025 plus Project condition provides a cumulative analysis for the proposed Uptown project. The scenario includes all anticipated cumulative population and employment changes in and around the City of Oakland to the horizon year 2025, in addition to traffic associated with the proposed Project. For the Central Station project in West Oakland, a combination of office, commercial, and live/work activities was included in the projections, since the proposed residential project for this site is not currently permitted by the General Plan or Zoning Ordinance. In this cumulative scenario, the intersection of West Grand Avenue/Frontage Road/I-880 Ramps was found to operate at LOS F. As discussed in the Draft EIR, the mitigation for the poor service level at this intersection would require the widening of the existing elevated structure. Widening of the structure would require the acquisition of additional right of way, and the reconstruction of the aerial I-880/I-80 connector located above the intersection. These changes would be very costly and are deemed economically infeasible at this time. In addition, the intersection is within the jurisdiction of Caltrans and not under the City of Oakland's control. Caltrans does not have an improvement planned for this intersection, and has no mechanism to receive funding from the Uptown developer. For these reasons, the impact is considered significant and unavoidable. However, it remains feasible to improve this intersection and the City may choose to work with Caltrans in the future to fund and implement these improvements.

Anna Naruta



Lynn Warner, Case Planner  
City of Oakland Planning Division  
250 Frank H. Ogawa Plaza, Suite 3330  
Oakland, CA 94612

Re: Case File Number ER 03-0007, Uptown Mixed Use Project

The Uptown Mixed Use Project Draft Environmental Impact Report (dated September 2003) is incomplete and inadequate in evaluating the historic and archaeological resources in the project area and proposed inadequate mitigations.

The DEIR (p. 214) reports “research indicates that the east side of San Pablo Avenue between 19th and 20th Streets was a Chinese neighborhood during the 1870s, and archaeological deposits that may exist from this period have the potential to provide information” regarding research questions that, as described, would make it an important cultural resource under CEQA and a significant cultural resource under the National Register of Historic Places criteria for evaluation.

First, the DEIR is incomplete and inadequate in its assessment of early Chinese and Chinese American settlements in the project area. Some of Oakland’s pioneering Chinese and Chinese Americans in 1867 established a settlement centered on the east side of San Pablo between 19th and 20th Streets (Chow 1974:116). This was after they had been burned out of Oakland’s very first Chinatown at 17th and Telegraph, and prohibited by the city from rebuilding. Another city-driven relocation effort in 1869, only partially successful, resulted in the Uptown Chinatown centered at 19th/20th Street and San Pablo producing a related settlement centered at San Pablo and 22nd Street (see attached map). Research shows these early Chinatowns in the Uptown San Pablo area existed from 1867 through at least 1876 (Baker 1914:203-4), and perhaps through 1894 (*Oakland Enquirer* April 7, 1894). Preliminary research with an 1877 photo of the area suggests the buildings in the Uptown Chinatown may have looked like the two-story wooden building shown in the attached photo.

After a second relocation effort in the late 1870s/early 1880s--Chow notes Oakland city fathers again worked to remove Chinese and Chinese American residents from the Uptown Chinatown area in order to redevelop the newly-valuable area for profit--new wooden buildings were constructed in the Uptown project area. Some of these buildings survive intact, and some survive in remodeled form. The project area's buildings and likely archaeological deposits provide a unique opportunity to learn about the early Uptown Chinatowns at this 1880s time of transition and contestation.

Archaeological resources that could characterize these early Uptown Chinatowns would be immensely significant. Such likely-existing resources could include wells or cisterns, refuse pits, latrines, architectural elements, and property-improving elements such as drainage features. The documentary record has so far revealed extremely little about these Uptown Chinatowns beyond their existence. <sup>1</sup> Potential Uptown Chinatown

<sup>1</sup> The accounts so far come from numerous politicians, persons involved in real estate development, and newspaper editors, who described the Uptown Chinatown in terms of it being a blight, but as they also used ‘blight’ to refer to ‘the Chinese’ in general, this is a characterization of the speakers/writers and not the Uptown Chinatown (e.g. *Oakland Tribune* March 13, 1875; Baker 1914: 203-4).

Anna Naruta  
Uptown Mixed Use Project DEIR comments  
November 2, 2003 -- 2

archaeological remains may be considered an important cultural resource under CEQA by virtue of their being

- (1) associated with an event or person of recognized significance in California and American history;
- (2) able to provide information which is both of demonstrable public interest and useful in addressing scientifically consequential and reasonable or archaeological research questions;
- (3) at least 100 years old and [potentially] possessing substantial stratigraphic integrity;
- (4) involves important research questions that historical research has shown can be answered only with archaeological methods.

Potential Uptown Chinatown archaeological remains may be qualify as a significant cultural resource for the National Register of Historic Places, by virtue of their being

- (1) associated with events that have made a significant contribution to the broad patterns of our history;
- (2) associated with the lives of persons significant in our past;
- (3) potentially likely to yield information important in prehistory or history.

Such potential archaeological deposits may likely also qualify for the City of Oakland Local Register Listings, as outlined in the DEIR (p.215), and the California Register of Historical Resources, and therefore be "considered be considered historical resources for the purposes of CEQA review."

Second, the DEIR reports the project area has "a high likelihood of containing historical archaeological deposits (p.213)." Yet the DEIR is inadequate in that it does not convey that it is very probable the ground-disturbing activities associated with the Uptown Project may encounter significant, intact archaeological deposits eligible for listing on the California Register of Historical Resources and the National Register of Historic Places. Documentary evidence and the results of archaeological monitoring in the immediate vicinity of the project area—i.e. two blocks from the Uptown project—indicate that the Uptown project area may contain such significant, intact archaeological deposits. Reports on file at the Northwest Information Center related to this archaeological monitoring project record the high potential this area has demonstrated for containing significant, intact archaeological deposits. The reported on project—which, like the Uptown Project, would disturb historic and more-recently remodeled buildings—hadn't been predicted to still have "soils containing historical materials (NIC file report, 1994:61; see also 34-5). With that prediction of no archaeological remains, the mitigation implemented was to merely have a Qualified archaeologist monitor the demolition and construction's ground disturbing activities.<sup>2</sup> Contrary to expectations, the archaeological monitor found intact archaeological deposits in the immediate vicinity of the Uptown project. He discovered **multiple intact archaeological features and numerous artifacts even below basements of historic buildings, and on properties where 19th-century buildings had been replaced in the mid-20th century.**<sup>3</sup>

<sup>2</sup> Curiously, this mitigation for an area anticipated **not** to have archaeological remains is the same mitigation the Uptown DEIR proposes for an area it reports to have "a **high likelihood** of containing historical archaeological deposits (p.213)."

<sup>3</sup>The large quantity of intact archaeological deposits discovered reveals soil bores were an inadequate method of assessing the presence or absence of intact historical archaeological deposits in the immediate vicinity of the Uptown Project (NIC file reports). The Uptown EIR therefore should not propose soil bores as the discovery method for archaeological mitigation planning.

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cont.

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Anna Naruta  
Uptown Mixed Use Project DEIR comments  
November 2, 2003 -- 3

**From all indications, the planned Uptown construction area is likely to contain intact and significant archaeological deposits relating to early Chinese and Chinese American pioneers in Oakland.** Yet not only are the proposed mitigations appallingly inadequate, Chinese American descendent groups, historical groups, and other potential stakeholders seem not to have been contacted for EIR-scoping comments. The DEIR public comment period should therefore be extended and/or a semi-final EIR should be prepared.

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cont.

3

The DEIR is inadequate also in regard to “prehistoric”, or Native American archaeological resources. The DEIR (p. 214) states that a few blocks away from the Uptown project, construction of a building foundation intruded on prehistoric archaeological site CA-ALA-22 and uncovered the burial of a Native Californian person. An archaeological resources investigation prepared for a project in the immediate vicinity of the Uptown project area reported “several [Native Californian] sites” have been recorded “within a three-quarter mile radius (p.13 of 1994 report on file at NIC).” Again, the Uptown DEIR itself notes both that “prehistoric archaeological sites have been recorded in the Project area” and “Several Ohlone villages in the vicinity of the Project area were still inhabited prior to the Peralta land grant.” Given the numerous recorded Native Californian sites, were Native American / Native Californian groups contacted for DEIR-scoping comments? How was it determined that “the Project area has a low-to-moderate likelihood of containing prehistoric archaeological deposits (DEIR p.213)”? Given the unexpected presence of intact historical archaeological deposits in the immediate vicinity of the project, might the DEIR be underestimating (and therefore preparing inadequate mitigations for) encountering prehistoric archaeological remains in the project area?

4

More extensive mitigations must be considered for the likely archaeological deposits, including mitigation measures that would include well-planned archaeological discovery and characterization studies of the area in advance of demolition- or construction-related ground-disturbing activities. (The Anthropological Studies Center associated with Sonoma State University has been very successful in efficiently completing such archaeological mitigations.) Descent groups and other stakeholders should be contacted and their input taken seriously in the early planning stages. A mitigation should be considered to provide for a resource center or small museum in the area of the Uptown Chinatowns to let old and new community members commemorate and learn more about Oakland’s Chinese pioneers and other Uptown predecessors. This could be a real community-builder and anchor in this new development, adding immeasurable value to the project.

Proposed mitigation measures that do not include measures to mitigate the impacts on archaeological remains (e.g. HIST-8, p.227) are inadequate and completely unacceptable.

Finally, the DEIR is inadequate in its assessment of the importance of the above-ground historic resources. To give just one example, in discussing Impact HIST-7 (DEIR p.226), proposed demolition and construction of four Potential Designated Historic Properties in the 19th and San Pablo Commercial District, the DEIR states “the district’s integrity of setting has been diminished by surrounding uses that ‘differ in use and visual coherence’ from the district’s contributing buildings” and “[t]herefore, the Project’s effects on the setting of the 19th and San Pablo Commercial District would not significantly impair the district’s integrity.” It seems difficult to take seriously an argument that if the surroundings of an historic district have subsequently been rebuilt with different uses, the district does not have integrity. The integrity of a historic district with PDHP buildings up to 120 years old and still in their original location seems instead to be emphasized by their age and integrity of location.

5

Anna Naruta  
Uptown Mixed Use Project DEIR comments  
November 2, 2003 -- 4

Sincerely,



Anna Naruta  
Historical Archaeologist  
(For identification purposes only----  
Ph.D. Candidate  
Anthropology Department / Archaeological Research Facility  
University of California, Berkeley)  
P.O. Box 1514  
Oakland, CA 94604  
naruta@sscl.berkeley.edu

Attachments:

- (1) A map indicating early Chinese settlements in the central Oakland area (from Willard Chow's 1974 dissertation on Chinese settlements in the East Bay).
- (2) Copy of a photo that preliminary research indicates may be similar in appearance to buildings in the 19th-century Uptown Chinatown area.

Sources:

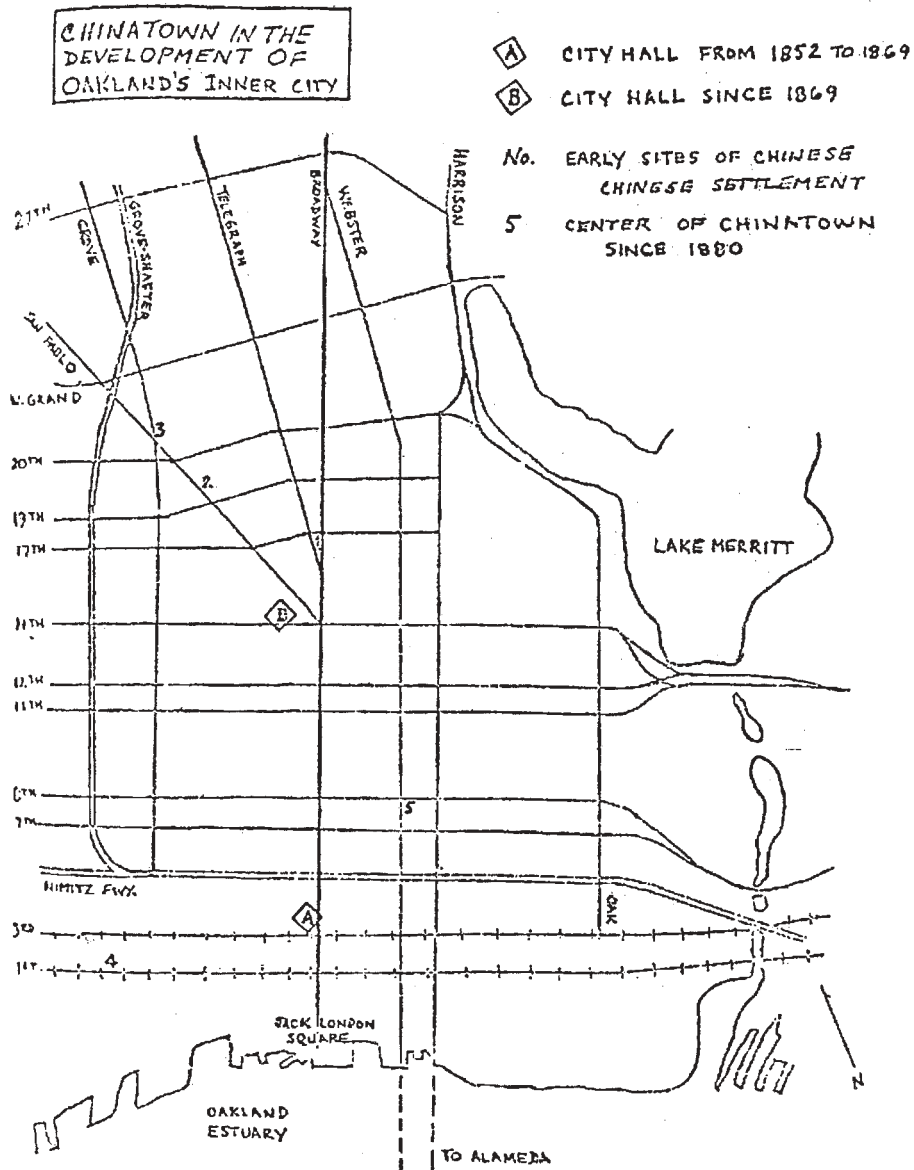
Baker, J. E. (1914). *Past and Present of Alameda County, California*. Chicago, The S.J. Clarke Company.

Chow, W. T. (1974). *The Reemergence of an Inner City: The Pivot of Chinese Settlement in the East Bay Region of the San Francisco Bay Area*. Ph.D. thesis. Geography Department. University of California, Berkeley.

Oakland Public Library, Oakland History Room. Photographic Collection: Oakland Chinatown.

Wulzen, A.H. (1877) Panorama of Oakland, Cal. Oakland Museum of California; Gift of Judge Jos. A. Murphy.

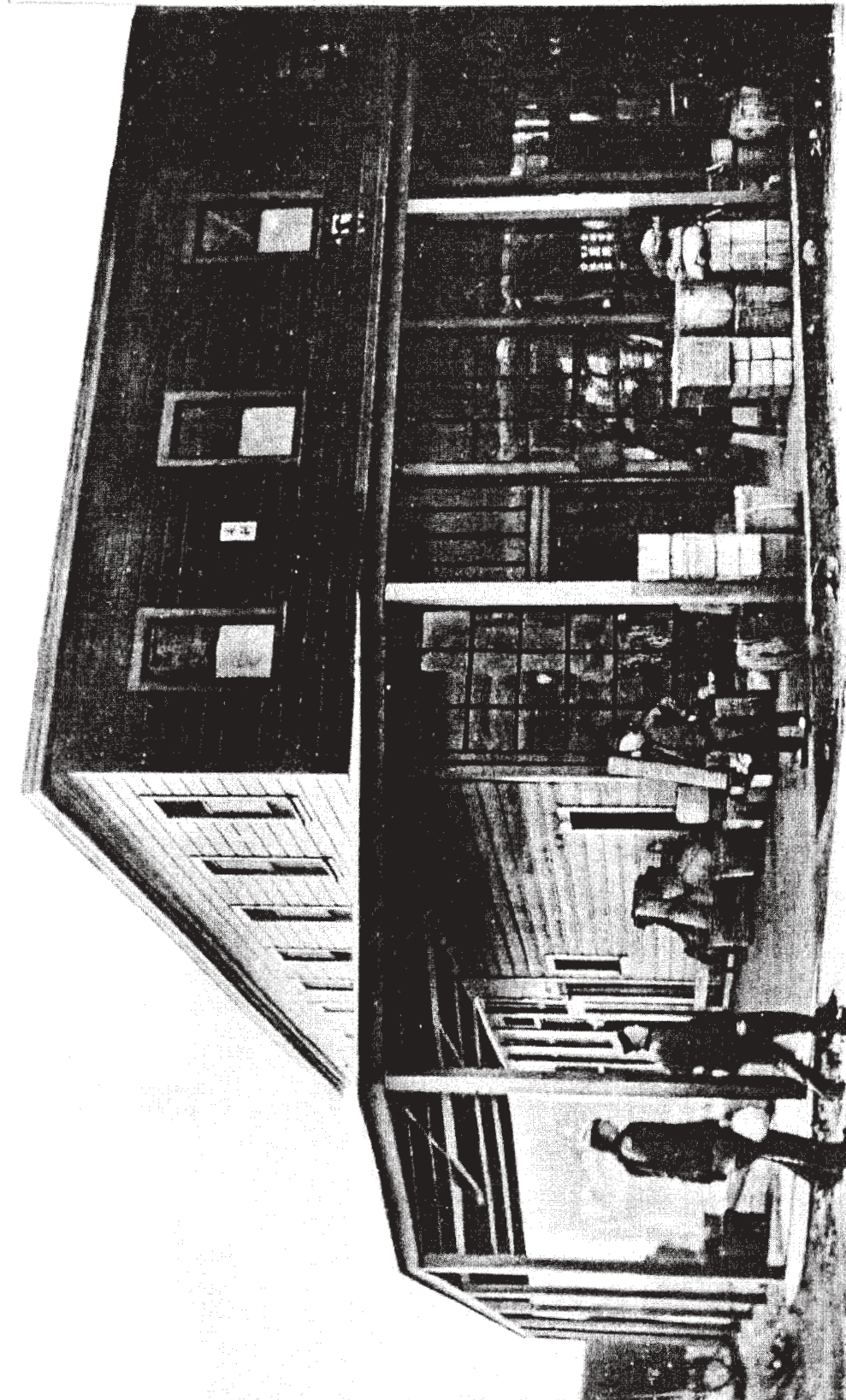
The numbers 2 and 3 on the map below indicate 19th-century Chinese settlements centered at San Pablo Ave and 19th Street, and San Pablo and 22nd Street, respectively. These Uptown Chinatowns were established in 1867 and continued at least through 1876, and possibly through 1894. (Subsequent research reveals additional historic Chinese settlements in Oakland's inner city not depicted on this map.) — AN



Chow, Willard T. (1974). *The Reemergence of an Inner City: The Pivot of Chinese Settlement in the East Bay Region of the San Francisco Bay Area*. Ph.D. thesis, Geography Department, University of California, Berkeley. Map 5, page 118

Copies of Chow's dissertation are available at the Oakland Public Libraries and libraries of the University of California, Berkeley.





China Town  
Oakland, Cal.

Preliminary research with an 1877 photo of the Uptown area suggests the buildings in the Uptown Chinatown may have looked similar to this one. The photo above was published as a postcard in about 1910. (Source: Oakland Public Library Oakland History Room)

Letter  
C5  
Attach.

## COMMENTOR C5

**Anna Naruta, Historical Archaeologist; November 2, 2003**

C5-1: Refer to Master Response M-1 on page 14 of this document.

C5-2: Refer to Master Response M-1 on page 14 of this document.

C5-3: The Draft EIR utilizes the results generated by personal contacts and background research to determine the baseline environmental conditions within and adjacent to the Project area. The following organizations were contacted, by letter and follow-up telephone calls, for their input and concerns about the proposed Project: Oakland Heritage Alliance; City of Oakland Landmarks Preservation Advisory Board; City of Oakland Planning Department; Oakland Cultural Heritage Survey (OCHS); and the California Native American Heritage Commission. Background archival research and literature review resulted in predictive assessments for prehistoric and historical archaeological deposits within the Project area. This combination of public contact and baseline research established the scope, content, and focus of the Draft EIR with respect to potential environmental impacts.

Please also see Master Response M-1 on page 14 of this document, which revises and supplements the text in this regard. The revisions made to Mitigation Measure HIST-2 (detailed in Master Response M-1 on page 14 of this document) requires consultation with members of the Chinese-American community in regard to the treatment of archaeological materials associated with historic Chinese communities if such resources are identified within the Project site.

C5-4: Refer to Master Response M-1 on page 14 of this document.

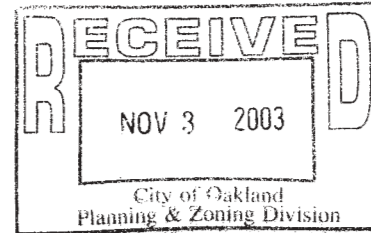
C5-5: The discussion on pages 226 and 227 of the Draft EIR have been revised to provide a more detailed discussion about the Project's potential impacts to the 19<sup>th</sup> and San Pablo Commercial District. Refer to Response to Comment B4-8.

C5-6: There is no known evidence that the photo shown in the attachment to this comment letter is actually a photo of the Uptown area. In fact, it is shown in the recently published book, *Oakland: A Photographic Journey*, as a photo of a building that existed in the 1890s in the area currently known as Chinatown (Webster and 7<sup>th</sup> Streets).



## REVELLI TIRE COMPANY

SINCE 1949  
571-20TH STREET • OAKLAND, CALIFORNIA 94612  
TELEPHONE (510) 444-1222



Attn:  
Lynn Warner  
Planner IV  
City of Oakland

Community and Economic Development Agency  
Planning Division  
250 Frank H. Ogawa Plaza – Suite 3330  
Oakland, CA 94612

October 31, 2003

Dear Lynn Warner,

I am a small Business owner in the Uptown/Forest City Development. My business is Revelli Tire Company at 571-20<sup>th</sup>, Street, Oakland where I have provided tire, brake and front end service myself since 1959(45 years). My father bought the business in 1949, so it 's been in our family for 55years in Jan. 04.

The Draft Environmental Report is deficient because it fails to mitigate in any manner the detrimental effects of this proposed project on a small business like mine.

The Draft Environmental Report fails to define any meaningful project or public purpose for that undefined project.

My business is a longtime neighborhood fixture and there is no basis for an undefined project to eliminate my business operations.

There is no alternative, equal space nearby so therefore I would lose my job,lose my business,and the means to support my family.

This letter is in addition to my verbal comments at the public meeting conducted by the Oakland Planning Commission Hearing on Oct .15, 2003 in Hearing Room # 1 at City Hall.

Thank You,

A handwritten signature in cursive script that reads "John M. Revelli".

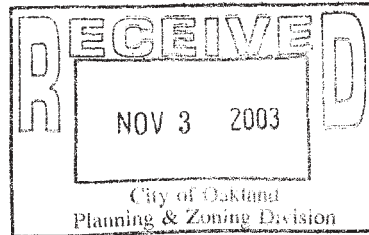
John M. Revelli  
Owner  
Revelli Tire Company  
571-20<sup>th</sup>. Street  
Oakland, Ca 94612  
(510)444-1222

## **COMMENTOR C6**

**John M. Revelli, Owner, Revelli Tire Company; October 31, 2003**

C6-1: Chapter III, Project Description, of the Draft EIR meets the criteria outlined in *CEQA Guidelines* section 15124 for the required components of a project description, including a statement of objectives that contains the underlying purpose of the Project. Pages 41 and 42 of the Draft EIR contain several Project objectives that define the Project's underlying purpose, including: redevelop blighted, underutilized sites; create a vibrant mixed-use neighborhood; construct market-rate and affordable housing; and provide opportunities to strengthen local-serving businesses by developing ground-floor commercial space. Chapter III of the Draft EIR thus adequately defines the Project and its purpose.

The relocation of businesses from the Project site is not considered an environmental impact in and of itself. The comments pertaining to the personal impacts on the business owner are noted. Refer to Master Response M-2 on page 18 of this document.



November 3, 2003

Lynn Warner

Case Planner, file ER 03-0007

City of Oakland Planning Division

250 Frank H. Ogawa Plaza, Suite 3330

Oakland, CA 94612

Re: Comments on the Uptown Mixed-Use Redevelopment Project DEIR

Dear Ms. Warner:

I have been asked to comment on the draft EIR for the above referenced project. I am an archaeologist with over 30 years experience in urban settings in Northern California. I was the archaeologist charged with recovering the remains of San Jose's first Chinatown (1850-1887) when the Fairmont Hotel and Silicon Valley Financial Center buildings were constructed. These buildings were on the site of an extensive Chinese American community not dissimilar to the early Oakland community. In the area of a single large urban block, we found dozens of significant historic archaeological features. Only the extensive pre-project planning that identified the potential archaeological deposits and developed a program for systematic recovery when discoveries were made prevented significant delays in these projects. Without a similar level of planning, you will undoubtedly face delays and problems during the construction of the proposed project.

Archaeological monitoring can be an appropriate approach to the recovery of archaeological features, but considerable planning is required for the monitoring process to succeed. Several examples of factors that must be considered:

1. Monitoring must be adequate to the magnitude of the project.
2. The monitor must be able to stop excavation in areas where discoveries are made.
3. The Project Archaeologist must be able to commit additional resources as soon as discoveries are made.
4. Recovery of archaeological features needs to be undertaken efficiently in order to avoid project delays.
5. Lack of cooperation from the project sponsor will only increase the cost of archaeology and the amount of delay from archaeological recovery processes.

If these factors are not fully considered, the project will not proceed efficiently, historic resources will be unnecessarily damaged or lost, and a part of the historic fabric of Oakland will be rent.

I strongly encourage a reexamination of the archaeological monitoring program to insure that adequate attention has been paid to the identification and recovery of archaeological features in a timely and efficient manner. Any other approach assures either the loss of important cultural sites, or unnecessary delays in construction of the project.

---

It is possible to undertake this project with no delays due to archaeological or historic discoveries, and to still find and recover any encountered features or sites. Any other approach will absolutely insure additional expenses, time delays, negative publicity, and a host of other problems.

I emphasize again that casually assuming that the presence of an archaeological monitor will adequately address the potential problems is an approach absolutely guaranteed to cause delays and problems. When problems surface, additional delays will ensue as decisions are made and approaches developed. Thorough archaeological planning prior to initiation of earth disturbing activities will insure a minimum of surprises during the construction project.

Thank you for this opportunity to comment on the draft EIR for this project. If I can answer any questions, please contact me at 707-762-2573.

Sincerely,

William Roop  
Partner, ARS

**1  
cont.**

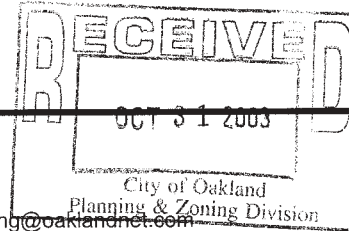
### **COMMENTOR C7**

**William Roop, Partner, Archaeological Resource Service; November 3, 2003**

C7-1: Refer to Master Response M-1 on page 14 of this document. As described in that response, Mitigation Measure HIST-2 has been revised to incorporate many of the commentor's recommendations, including: acknowledgement of the presence of a historic Chinese settlement, and the potential for associated archaeological materials within the Project site; the need for pre-construction planning in regard to testing for archaeological material; and the need for the monitor to be able to halt construction activities if archaeological deposits are encountered during the Project construction period.

**Warner, Lynn**

**From:** Wong, Howard [Howard\_Wong@ci.sf.ca.us]  
**Sent:** Friday, October 31, 2003 3:23 PM  
**To:** lwarner@oaklandnet.com  
**Cc:** dwan@oaklandnet.com; jquan@oaklandnet.com; hchang@oaklandnet.com  
**Subject:** CAUTION NEEDED ON UPTOWN MIXED USE REDEVELOPMENT PROJECT (ER 03-0007)



TO: Lynn Warner, City of Oakland Planning Department  
CC: Councilmembers Danny Wan, Jean Quan, Henry Chang  
RE: UPTOWN MIXED-USE REDEVELOPMENT PROJECT, Case File No. ER 03-0007

I am alarmed that the "Forest City Project" could cause the demolition of parts of Old Chinatown, with roots back to the 1860's---without meaningful wider-ranging and legal considerations. Unfortunately, many American cities, as well as foreign nations, have learned from horrible mistakes that the "Demolition of History" is irreversible and detrimental to community/ economic vitality. In the relatively youthful west coast of the United States, we have far fewer historic resources to chronicle our lineage. Especially for Chinese America, the few significant historical resources, which exemplify the difficult journey to American enculturization and success, should be preserved.

From a Developer's perspective, preservation of history can increase the value of the project. This has been proven, over and over again, in Washington DC, Shanghai, Jerusalem, Paris, San Francisco..... The incorporation of old historic architecture into the Uptown Development Project would build on, rather than dismantle, the historical values that strengthen community and economic values. For example, even Marysville---a small California Town--- is working to restore the old Bok Kai Taoist Temple (1880) and its old Chinatown as a Chinese Cultural Village. Washington DC is currently expanding its Chinatown. Historic Boston, Philadelphia, Williamsburg, Savannah, Charleston etc. revive the historical elements that attract visitors and economic vitality.

1

The old Oakland Chinatown in the uptown San Pablo area has origins in the 1860's. Ironically, past governmental agencies have attempted to dismantle Chinatowns for political reasons and special interests. It would be so tragic to lose these vestiges of Chinese American history now, after staving off political attacks for so many decades.

Aside from just good urban planning and sensitivity to cultural history, national, state and local planning/ zoning historical codes need to be considered. Old Oakland Chinatown is definitely eligible for the National Register of Historic Places. Oakland's history is one its unique attributes that is being gradually lost. Oakland must reinforce the historic resources that give it a sense of Place, while many critics have cited "There is no there, there". Well, there are historical roots there---and these are the basis for building a stronger sense of community.

Many organizations can provide extensive information about the historical value of Old Oakland Chinatown, e.g. the National Trust for Historic Preservation, San Francisco Architectural Heritage, California Preservation Foundation, numerous Oakland community organizations, Chinese Historical Society of America..... Please incorporate a wider range of participation into the planning and EIR process.

Feel free to contact me for any assistance at (415)-557-4759.

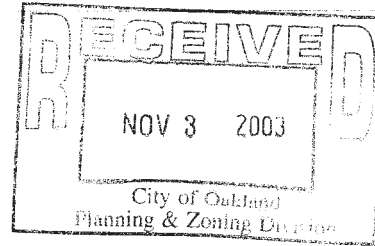
Regards,  
Howard Wong, AIA  
(For identification purposes only---  
Chinese Historical Society of America, Board Member;  
San Francisco Architectural Heritage, Board Member;  
A Better Chinatown Tomorrow, S.F., co-Chair).

**COMMENTOR C8**  
**Howard Wong, AIA; October 31, 2003**

C8-1: Refer to Master Response M-1 on page 14 of this document.

**Warner, Lynn**

**From:** Pezyee@aol.com  
**Sent:** Monday, November 03, 2003 8:17 AM  
**To:** Lwarner@oaklandnet.com  
**Subject:** ER 03-0007



Lynn Warner  
Case Planner for Case File Number ER 03-0007  
city of Oakland Planning Division  
250 Frank H. Ogawa Plaza, Suite 3330  
Oakland, CA 94612

Dear Ms. Warner:

I oppose any razing of the historical Chinatowns on 17th and Telegraph and San Pablo between 29th and 29th street. All efforts were not made to inform interested parties.

The developers' own DEI Report notest the project area has "a high likelihood of containing historical archaeological deposits (p. 213)." Despite this, the developers plan to raze the area with only an archaeologist to watch their destruction of these important artifacts.

Every possible efforts should be made to preserve the Chinese and Chinese American pioneer's artifacts by allowing trained professionals to remove them prior to demolition and redevelopment. The developers should provide funds to rehab the 1883 building to preserve as a historical site.

Sincerely,  
Ann G. Yee

1

2



## **COMMENTOR C9**

**Ann G. Yee; November 3, 2003**

C9-1: The proposed Project does not include the demolition of buildings at 17<sup>th</sup> Street and Telegraph Avenue, which is located outside of the Project site. For the purposes of responding to this comment, it is assumed the commentor intended to say that she opposes the razing of buildings between 20<sup>th</sup> and 19<sup>th</sup> Streets along San Pablo Avenue (29<sup>th</sup> Street and San Pablo Avenue is also outside of the Project site). This comment is addressed in more detail in Response to Comment B1-1.

Efforts to notify individuals, businesses, agencies, and organizations regarding the environmental documentation effort for the Project exceeded the requirements of CEQA. Refer to Response to Comment B4-2.

C9-2: Refer to Master Response M-1 on page 14 of this document. The Muller Tailor-Rankin Plumbing shop at 1972 San Pablo Avenue is the “1883 building” referenced by the commentor. The building was constructed in 1883 and has a “C” rating from the OCHS. It is a PDHP, but is not considered to be a historic resource pursuant to CEQA. See Response to Comment B4-8 which provides a detailed discussion regarding the Project’s potential impacts to existing buildings on San Pablo.

## **D. VERBAL COMMENTS**

The Planning Commission held a Public Hearing on October 15, 2003 to accept verbal comments on the Draft EIR from agencies, organizations or interested individuals. The comments presented at the hearing are summarized and enumerated in attachment D1 and written responses follow.

The Landmarks Preservation Advisory Board discussed the Draft EIR during two of its meetings. The comments presented by each board member are outlined and enumerated in Letter D2 and written responses follow.

**COMMENTATORS AT THE OAKLAND CITY PLANNING COMMISSION PUBLIC HEARING FOR THE UPTOWN MIXED USE PROJECT**

October 15, 2003; Hearing Room 1, City Hall, 1 Frank H. Ogawa Plaza, Oakland

Public individuals spoke first, followed by Planning Commissioners.

**Public Individuals**

**John Revelli.** Introduced himself as the owner of Revelli Tires on 20<sup>th</sup> Street. Made the following comments:

- The EIR did not contain a discussion of the impacts of the Project on small businesses.
- Revelli Tires is a family-run business and has been so for 45 years.
- Revelli Tires is dependent upon its location, which is in close proximity to BART; therefore, for the business to remain viable, it would have to be relocated to within 1 block of a BART station. However, a relocation would be a hardship because John Revelli is the sole owner/operator of the business.
- The Uptown Project should be built around Revelli Tires and should leave the business intact.
- He will also submit his comments in written form.

**1**

**Tony Fung.** Introduced himself as the owner of the full-service garage and smog station within the Project site. Made the following comments:

- The EIR did not mention the environmental impacts that would result from the relocation of businesses within the Project site.
- Due to the lack of available sites, CEDA would not be able to relocate businesses within the vicinity of the Project site.
- His business is dependent upon being in close proximity to a BART station, and he will be forced out of business if he is relocated.
- The Uptown Project should incorporate his business; residents within the Project site will require the services of a garage and smog station.

**2**

**Julia Liou.** Introduced herself as a representative of the Oakland Chinatown Coalition and other Chinatown-based organizations. Made the following comments:

- The Chinatown community is concerned about cumulative impacts on neighborhoods around the Uptown Project site.
- 9 percent of Project trips will go through Chinatown, but the EIR does not include detailed analysis of the Project's impacts on the Webster/Posey Tubes intersections.
- The EIR needs to better analyze the cumulative effects of the Project on Chinatown (including the effects of Jack London Square projects). Chinatown is one of the Bay Area's 52 most impoverished communities.

**3**

**Anna Naruta.** Made the following comments:

- The EIR needs to better analyze the cumulative impacts of the Project on surrounding communities.
- She supports Joyce Roy's March 28 letter, which stated that the Project should be integrated into the Uptown entertainment district.
- The Project should preserve historic resources within the Project site, including the 19<sup>th</sup> and San Pablo Commercial District and the Rankin Plumbing building, which is 120 years old.
- The public park should front on Telegraph Avenue.

**4**

**5**

**6**

<ul style="list-style-type: none"> <li>• Historic buildings within the Project site are small, and are generally located on the periphery of the Project site (e.g., Navlet’s), and so could be easily incorporated into the Project.</li> <li>• Two previous Chinatown settlements (dating as far back as 1869) were located within and in close proximity to the Project site on 19<sup>th</sup> Street and San Pablo Avenue, and 22<sup>nd</sup> Street and San Pablo Avenue. These communities should be discussed in the EIR in more detail.</li> <li>• Mitigation measures should be included that reduce impacts to archaeological resources associated with these communities. Page 213 of the EIR states that there is a low to moderate chance that archeological resources will be uncovered on the site. Due to the extensive history of the Project site, there is a high likelihood that unidentified archaeological resources are located on the site. The EIR should address these cultural resources that are likely to be present within the site. Oakland General Plan Policy 4.1 mandates protection of underground cultural resources.</li> </ul>	<p><b>6 cont.</b></p>
<p><b>Erin Beales.</b> Introduced himself as the new owner of Navlet’s. Made the following comments:</p> <ul style="list-style-type: none"> <li>• Navlet’s as an architectural resource is underrated in the EIR; the building should really be rated an A. The building has been restored to its original 1924 condition (the signs and glass windows have been restored).</li> <li>• Navlet’s contains architectural details and a three-tone paint job that would be obscured by shade.</li> </ul>	<p><b>7</b></p> <p><b>8</b></p> <p><b>9</b></p>
<p><b>Steve Lowe.</b> Made the following comments:</p> <ul style="list-style-type: none"> <li>• The public park should be relocated to Telegraph Avenue, so that it will be subject to more surveillance. The City should look at park location alternatives.</li> <li>• A park belongs in the heart of Oakland’s retail center, and could have a role similar to Union Square in San Francisco.</li> </ul>	<p><b>10</b></p>
<p><b>Joyce Roy.</b> Identified herself as a representative of the Sierra Club and an Oakland resident. Made the following comments:</p> <ul style="list-style-type: none"> <li>• The Project needs to reference the fact that the Uptown District is primarily an entertainment district.</li> <li>• The Project is not consistent with the objectives of the Uptown Redevelopment Plan.</li> <li>• The proposed park should be in a more public place to take advantage of good views of the Uptown District and Downtown, and to separate housing from surrounding areas. This park could energize the area, and provide a separation between conflicting land uses.</li> <li>• She will also submit her comments in written form.</li> </ul>	<p><b>11</b></p> <p><b>12</b></p> <p><b>13</b></p>
<p><b>Naomi Schiff.</b> Identified herself as a member of the Oakland Heritage Alliance. Made the following comments:</p> <ul style="list-style-type: none"> <li>• Historic buildings could be incorporated into the Project at 20<sup>th</sup> Street and San Pablo Avenue.</li> <li>• The DEIR is incomplete for the following reasons: it does not analyze alternatives that include the preservation of on-site historic buildings; it does not analyze the design sensitivity of historic properties surrounding the Project site; Block 7 was not adequately analyzed.</li> <li>• A greater distance needs to be maintained behind the Fox Theater.</li> <li>• The hamburger stand on Block 9, which is an excellent example of “googie” architecture, should be maintained as part of the Project.</li> <li>• She will also submit her comments in written form.</li> </ul>	<p><b>14</b></p> <p><b>15</b></p> <p><b>16</b></p> <p><b>17</b></p>
<p><b>John Chapman.</b> Identified himself as a representative of the Livable Communities Initiative. Made the following comments:</p>	

- The Project combines economy, environment, social equity and civic engagement, represents a good plan for the revitalization of the district, and combats sprawl. | **18**
- The EIR should talk about the benefits of the Project, which include the provision of housing near jobs and transit, the clean-up of on-site contamination, the provision of transit opportunities, the reduction of obesity, and the recycling of land. |

**Sanjiv Handa.** Identified himself as a representative of the East Bay News Service. Made the following comments:

- The City does not have the capabilities to deal with neighborhood impacts that would be caused by the proposed student housing on Block 7. | **19**
- Politicians neglect Oakland residents and quality-of-life issues. | **20**

**Planning Commissioners**

**Anne Mudge.** Made the following comments:

- It would be useful if the EIR included a map that shows proposed uses transposed on zoning designations. | **21**
- On page 49, SBC and PG&E are designated as “Other Agencies” when in fact they aren’t permitting agencies. | **22**
- The EIR needs to include additional discussion of the relocation of businesses from the Project site. | **23**
- It is hard to tell from the EIR which buildings are proposed for demolition. Figure IV.I-1 should show these buildings. | **24**

**Mark McClure.** Made the following comments:

- The EIR should include more information and analysis regarding relocation of businesses from the Project site. | **25**
- The EIR should include alternatives that include different park locations. | **26**

**Colland Jang.** Made the following comments:

- The study intersections analyzed in the EIR should include those in Chinatown and the Broadway corridor. | **27**
- The intersection of Broadway and 5<sup>th</sup> Street is operating at LOS F. Why wasn’t this intersection subject to detailed analysis in the EIR. | **28**
- Are there detailed plans for Block 7 (if so, this is unclear in the EIR)? | **29**
- Why does the EIR only consider alternatives for Block 7? |
- The EIR should include alternatives that include 20<sup>th</sup> Street and San Pablo Avenue (historic resources). | **30**

**Michael Lighty.** Made the following comments:

- The EIR needs to be more explicit in regard to what buildings would be demolished within the Project site. | **31**
- Historic buildings, especially those fronting on San Pablo Avenue and the Great Western Power Company Building, should be incorporated into the Project to give it character. | **32**
- The quality of the park space would be improved by moving it to Telegraph Avenue. | **33**
- The Project’s impacts on pedestrian safety and traffic volumes in Chinatown should be quantified. | **34**

**Nicole Franklin.** Made the following comments:

<ul style="list-style-type: none"><li>• The Project includes 43,000 square feet of commercial space. Performing arts and entertainment uses should be incorporated into this space to provide for after-hours activity.</li></ul>	<b>35</b>
<ul style="list-style-type: none"><li>• Why are there no population, employment and housing impacts? One would assume that impacts would result from such a large number of people moving Downtown.</li></ul>	<b>36</b>
<p><b>Clinton Killian.</b> Made the following comments:</p>	
<ul style="list-style-type: none"><li>• The intersections shown in Figure IV.D-2, Study Intersections, are not representative of all the intersections that would be affected by the Project.</li></ul>	
<ul style="list-style-type: none"><li>• Why were no intersections in West Oakland analyzed except for West Grand?</li></ul>	<b>37</b>
<ul style="list-style-type: none"><li>• Intersections between East Adams Point and the Lakeshore District and Downtown Oakland should be analyzed.</li></ul>	
<ul style="list-style-type: none"><li>• Figure IV.D-8, Project Trip Distribution, is incomplete: West Grand would be affected by the Project, especially when you take into account regional trips.</li></ul>	<b>38</b>
<ul style="list-style-type: none"><li>• The EIR should analyze the impacts of the Project on the Paramount.</li></ul>	

**COMMENTOR D1**  
**City of Oakland Planning Commission Public Hearing**  
**October 15, 2003**

- D1-1: Mr. Revelli submitted his comments in writing. Refer to Response to Comment C6-1.
- D1-2: Mr. Fung submitted his comments in writing. Refer to Responses to Letter C1. Also refer to Master Response M-2 on page 18 of this document.
- D1-3: Written comments were received from the Oakland Chinatown Coalition which include more detailed comments related to each of the topics Ms. Liou raised at the hearing. Refer to Responses to Comments B3-4 and B3-9.
- D1-4: Refer to Response to Comment B3-4.
- D1-5: This comment refers to the proposed Project, not to the analysis or conclusions contained in the Draft EIR. Comment is noted and no additional response is necessary.
- D1-6: Refer to Responses to Comments B4-8 and C9-2.
- D1-7: See Master Response M-1 on page 14 of this document.
- D1-8: The historic architectural resources analysis in the Draft EIR utilizes the architectural ratings of the Oakland Cultural Heritage Survey (OCHS). The OCHS rankings are based on the graduated system set forth in the *Historic Preservation Element* of the City's General Plan. The OCHS rating for the Great Western Power Company Building (Navlet's) is B+2+, indicating that the structure is a Property of Major Importance that contributes to an Area of Secondary Importance. The building does not have a contingency rating, indicating that even if the building is restored to a historic condition, its OCHS rating would not increase. Therefore, the OCHS rating adequately reflects the current condition of the Great Western Power Company Building. No revisions to the Draft EIR are necessary.
- D1-9: As described on page 277 of the Draft EIR, the Great Western Power Company Building is currently under shadow during mornings in the winter, spring, and fall, and afternoons in the winter. Implementation of the proposed Project would cast shade on portions or all of the structure for the majority of the year, with the exception of late afternoons in the spring and fall. However, the Great Western Power Company Building is located in an urban setting (in which shade is a pre-existing component of the building's architectural context), and is characterized by massive façade elements that would not be obscured by shade. Although the proposed Project could make it harder to discern some of the building's coloration and smaller architectural details during certain times of the year, it would not compromise the historic architectural integrity of the structure. Shade is a natural element of the urban setting of the Great Western Power Company Building.

- D1-10: This comment refers to the proposed Project, not to the analysis or conclusions contained in the Draft EIR. Comment is noted and no additional response is necessary.
- D1-11: The authors of the Draft EIR disagree with the commenter's statement that the Uptown District is primarily an entertainment District. Page 37 of the Draft EIR states that although historically the Uptown District was a popular shopping and entertainment district, the neighborhood currently contains a mixture of uses. Although two major theaters are located in the Uptown District, other land uses, including parking, commercial, and residential, predominate. No revisions to the Draft EIR are necessary.
- D1-12: The authors of the Draft EIR disagree with the commenter's conclusion that the proposed Project is not consistent with the Central District Urban Renewal Plan (also known as the Uptown Redevelopment Plan). As described on page 70 of the Draft EIR, the proposed Project is consistent with the major objectives of the Plan, including the re-establishment of residential areas, utilization of transit nodes, and the provision of infrastructure.
- D1-13: This comment refers to the proposed Project, not to the analysis or conclusions contained in the Draft EIR. Comment noted and no additional response is necessary.
- D1-14: Refer to Response to Comment B4-8.
- D1-15: Refer to Responses to Comments B4-7, B4-8, B4-10 and B4-15.
- D1-16: The Fox Theater Master Plan Report (Volume Three), prepared by Hardy Holzman Pfeiffer Associates in 2001, describes five rehabilitation alternatives for the theater. Each alternative includes a designated 40-foot-wide loading/support area adjacent to the western side of the theater. This area would allow for three 55-foot long trucks with semi-trailers to park and off-load simultaneously into the backstage storage area. This space is considered necessary for the Fox Theater to sustain a performing arts program. Therefore, the 50-foot-wide loading/support area behind the Fox Theater that is proposed as part of the Project would be adequate to allow for such loading and unloading.
- D1-17: Refer to Response to Comment B4-14.
- D1-18: A discussion of the benefits of the proposed Project, including the redevelopment of an underutilized site, the construction of infill housing, and the development of dense uses adjacent to transit stations, is found on numerous pages of the Draft EIR, including: 66, 69, 74, and 243.
- D1-19: The commenter is likely referring to impacts that could result from the introduction of a large number of students into a small geographic area, namely: litter, occasional boisterous behavior, and associated noise. Students on Block 7 would be subject to the same ordinances that govern personal behavior throughout Oakland, and the same punishments for violating noise and litter regulations. Although it is conceivable that additional police officers would be needed to occasionally patrol the vicinity of Block 7 due to the large number of students living in the area, this would not represent a significant environmental impact pursuant to CEQA and the City's criteria of significance because the Project



would not require new police facilities to be built. It is also likely that conditions and agreements pertaining to public safety and the provision of adequate security personnel by the Project operator will be considered by decision-makers during the review of the student housing portion of the Project. Therefore, no revisions to the Draft EIR are necessary.

- D1-20: This comment does not address the adequacy of the EIR. Comment noted and no additional response is necessary.
- D1-21: A map showing proposed land uses transposed over zoning designations will be prepared by City staff prior to Project approval.
- D1-22: Table III-4 on page 49 of the Draft EIR is revised as follows:

**Table III-4: Required Permits and Approvals**

Lead Agency	Permit/Approval
City of Oakland Planning Commission City Council Redevelopment Agency	<ul style="list-style-type: none"> <li>Major Conditional Use Permit for <del>creation of a new park a project over 100,000 square feet in size and for</del> Demolition of <u>rooming Single Residency Occupancy (SRO)</u> units</li> <li>Design Review</li> <li>Planned Unit Development (preliminary and final)</li> <li>Minor Conditional Use Permits or Variances, if determined necessary once detailed plans are submitted</li> <li>Redevelopment Agency actions, including a Disposition and Development Agreement and acquisition of land</li> <li>Subdivision Maps to combine parcels, create new parcels or create condominiums, if proposed</li> <li><del>DDA</del></li> <li>General Plan Amendment <u>and Rezoning</u> to designate proposed park as open space</li> </ul>
<b>Responsible Agencies</b>	
East Bay Municipal Utility District (EBMUD)	<ul style="list-style-type: none"> <li>Approval of water line, water hookups and review of water needs</li> </ul>
California Department of Transportation (Caltrans)	<ul style="list-style-type: none"> <li>Approval of plans and encroachment permit for improvements located within the State right-of-way; improvements within the public right-of-way; excavation for utilities; clean-up of contamination; condemnation of property (if required); and traffic improvements (including re-paving, re-striping, signal improvements, street lights, and signal optimization)</li> </ul>
California Regional Water Quality Control Board (RWQCB)	<ul style="list-style-type: none"> <li>National Pollutant Discharge Elimination System (NPDES) permit for stormwater discharge</li> <li>Approval and oversight of required remediation plans</li> </ul>
<b>Other Agencies</b>	
<del>SBC (prev. Pacific Bell)</del>	<del>Approval of communication line improvements and connection permits</del>
<del>Pacific Gas &amp; Electric PG&amp;E)</del>	<del>Approval of natural gas improvements and connection permits</del>
California Department of Toxic Substances Control (DTSC)	<ul style="list-style-type: none"> <li>Approval and oversight of the plan</li> </ul>
Bay Area Air Quality Management District (BAAQMD)	<ul style="list-style-type: none"> <li>Permitting of asbestos abatement activities</li> </ul>

Source: LSA Associates, Inc., 2003.

- D1-23: Refer to Master Response M-2 on page 18 of this document.
- D1-24: Figure III-3, Proposed Demolition, has been added after page 47 of the Draft EIR; as shown in Chapter V of this document.

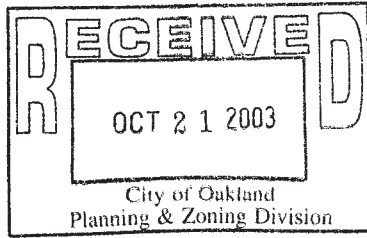
Page 47 of the Draft EIR is revised as follows:

### **7. Demolition and Construction**

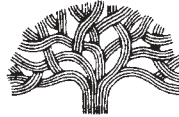
Demolition activities would include the removal of all existing structures on Blocks 1 through 7, including approximately 20 buildings, with the possible exception of the Greater Western Power Company Building (also known as Navlet's Florist and Nursery). Proposed building demolition is shown in Figure III-3. The Project applicant is proposing the following three variants in regard to the Great Western Power Company Building:

- D1-25: Refer to Master Response M-2 on page 18 of this document.
- D1-26: No environmental impacts are associated with the proposed park location. The City and project applicant may consider alternative park locations as part of the Project's design review process. Refer to Response to Comment B5-2.
- D1-27: Refer to Responses to Comments A2-2, B3-7, B3-8, B3-9 and C2-1.
- D1-28: Refer to Response to Comment B3-7 which explains the screening of intersections that was undertaken as part of the Uptown traffic study. The intersection of Broadway and 5<sup>th</sup> Street was screened out and not addressed in the Draft EIR as it was determined that the Uptown project would not significantly affect this intersection.
- D1-29: The development proposed for Block 7 is described on page 45 of the Draft EIR. Also refer to Responses to Comments B4-1 and B4-7.
- D1-30: Pursuant to section 21159.25 of the CEQA Statutes, a Focused EIR is not required to contain an alternatives analysis. The mitigation measure for Impact HIST-8 has been revised to include preservation of some of the buildings located on San Pablo Avenue. Refer to Responses to Comments B4-8 and B4-10.
- D1-31: Refer to Response to Comment D1-24.
- D1-32: This comment refers to the proposed Project, not to the analysis or conclusions contained in the Draft EIR; no additional response is necessary. Also refer to Response to Comment B4-8.
- D1-33: This comment refers to the proposed Project, not to the analysis or conclusions contained in the Draft EIR; no additional response is necessary. Refer to Response to Comment B5-2.

- D1-34: Refer to Response to Comment B3-9.
- D1-35: This comment refers to the proposed Project, not to the analysis or conclusions contained in the Draft EIR; no additional response is necessary.
- D1-36: A population or job increase is not an environmental impact in and of itself. The City of Oakland criteria of significance on page 74 of the Draft EIR dictate that a project would have a significant population, employment and housing impact only if it would: (1) induce substantial population growth; (2) displace a substantial number of housing units; or (3) displace substantial numbers of people. Because the population and job growth associated with the proposed Project is consistent with growth anticipated in the City's Land Use and Transportation Element of the General Plan and are well within the growth projected by the City's cumulative scenario and ABAG's projections for Oakland over the next 5 years, Project-related growth would not be considered substantial. In addition, the demolition of a relatively small number of SRO units would not displace a substantial number of housing units or people; all residents within the Project site would be relocated. The proposed Project would result in the development of 250 units of affordable housing, a net beneficial housing impact.
- D1-37: The amount of traffic that the proposed Project would add to each of the intersections in West Oakland was evaluated in detail. The proposed Project would add small amounts of traffic to West Oakland arterials such as 7<sup>th</sup> Street, 14<sup>th</sup> Street and 18<sup>th</sup> Street; however, the intersections along these roadways would not meet the Draft EIR's screening criteria (refer to Response to Comment B3-7). Because the project would not substantially adversely affect these intersections, they were not analyzed in the Draft EIR. It should also be noted that Draft EIR's intersection screening criteria was satisfied for many intersections along West Grand Avenue in West Oakland, and these intersections were evaluated in detail in the study.
- D1-38: Blocks 8 and 8a, which are adjacent to the Paramount Theater, are proposed as alternate sites for the relocation of the Sears Auto Center. The Sears Auto Center is anticipated to be a one-story building that would not conflict in any way with the functioning or historic integrity of the Paramount Theater. As described on page 277 of the Draft EIR, implementation of the proposed Project would cast shadows on the Paramount Theater in mid-winter when the sun is low on the horizon; however, this impact would not occur during the majority of the year, and would not substantially obscure the façade of the theater. As described in Section IV.A, Land Use, of the Draft EIR, the proposed Project would benefit cultural venues in Downtown Oakland by introducing a permanent residential population to the Uptown District.



CITY OF OAKLAND



250 FRANK H. OGAWA PLAZA, SUITE 3330 • OAKLAND, CALIFORNIA  
94612-2032

Landmarks Preservation  
Advisory Board

(510) 238-6344  
FAX (510) 238-6538  
TDD (510) 238-3254

October 21, 2003

Ms. Claudia Cappio  
Development Director  
250 Frank Ogawa Plaza, Suite 3330  
Oakland, CA 94612

**Subject: Landmarks Preservation Advisory Board – Comments on Draft  
Environmental Impact Report for Uptown Mixed Use Project  
Environmental Impact Report**

Dear Ms. Cappio:

At its regular meeting of October 6, 2003, the Landmarks Preservation Advisory Board (LPAB) considered the Draft Environmental Impact Report (DEIR) for the Uptown Mixed Use Project Environmental Impact Report. The LPAB discussed the DEIR and directed the Uptown DEIR sub-committee to prepare a letter incorporating the Board's comments and concerns, as outlined below.

Board Member Dreyfuss

- Demolition or partial demolition of the old power company building would constitute a serious and unavoidable impact, even with mitigations that are proposed.
- The EIR should include an alternative that includes the preservation of the power building.
- The proposed tall project on parcel #7 would have an impact on the YMCA building and the power building. An alternative of a low-rise building should be explored at both parcels #7 and #3.

1  
2

October 21, 2003  
Uptown Mixed Use Project DEIR  
LPAB Comment Letter

- The DEIR did not address project impacts on the existing visual connection between the uptown entertainment district and cathedral district. This project cuts those districts off from each other visually and this should be addressed in the EIR. A possible mitigation is to limit height of buildings on parcels #7 and #3 to low-rise buildings. **3**
  - Disagrees with survey ratings on the 1966, 1972 San Pablo. The consultant should review ratings on both of these buildings. **4**
  - The DEIR states that there would be a serious unavoidable impact on the San Pablo commercial district due to demolition of four buildings on San Pablo. Explore an alternative that includes retention of the buildings along that street front. **5**
- Board Member Bliss
- *Additional Possible Mitigation for demolition of the Great Western Power Building:* Recommend contribution to commercial improvement façade program as an additional possible mitigation measure for the demolition of the power building possibility, explored in the DEIR. However, this would not reduce impact to less than significant. **6**
  - EIR should address impact on Kwik Way from proposal to relocate Sears Tire Store (Block 8 vs. Block 9). Kwik Way does qualify as a Historic Resource under 15064.5(a)(3)(A)(2)(C). **7**
- Board Member Armstrong
- Needs to see alternative that explores possibility of saving of buildings along San Pablo Avenue addressed in EIR. **8**
- Board Member Hooks
- Agrees with Board Member Dreyfuss on most of his comments
  - Preserving buildings makes sense – particularly power building. Feels less strongly about other buildings. However, as a backdrop for the development of parcels 1 through 6, it seems important to save them.
  - Suggests an additional mitigation for the impact on San Pablo District and historic Chinese settlements by creating a film of the district describing what it was like, including first person interviews. **9**
- Board Member Gilmartin
- The EIR should refer to Historic Preservation Element (HPE) policies in the Land Use Policies Section. The policies outline preferred City practices in regard to treatment of historic buildings and should be given appropriate consideration. **10**
  - Policies in the HPE (3.6 and others) advise that City assisted projects should be designed to avoid adverse impacts on historic structures. The proposed project is so large in scale that its impacts to the Great Western building are avoidable and the project can still achieve its objectives while avoiding adverse impacts on this building. **11**

- The EIR accurately states that mitigations identified do not make up for loss of resource like the Great Western Power building. It is still a Significant and Unavoidable impact. **12**
- Not in support of reusing and salvaging building parts for reuse in new buildings. Recommend deleting this portion of Mitigation Measure HIST-8. They should be put in a salvage yard for use on older buildings. **13**
- PDHP's could be reused. Should be analyzed and considered by project sponsor. Also, consider allowing buildings to be moved if they could continue to be part of the district by being moved. Restate Mitigation to include that moving them within the district, if possible, would be less of an impact. **14**
- Questioned whether the Fox can function as a performing arts venue, be seismically upgraded and meet exiting requirements with a 50 ft. setback as proposed. Has this been analyzed, if not it should.

Two members of the public commented on the DEIR during the Public Hearing. The Board Secretary has included their comments for convenience in addressing all EIR comments. Inclusion of public comments is not intended to indicate agreement or acceptance with them by the Landmarks Board. Public comments are outlined below:

Speakers:

- Naomi Schiff, Oakland Heritage Alliance
- The new owner of the power building is interested in rehabbing it. It is not reasonable to tear it down. **15**
  - The same owner has purchased two buildings to the west of the power building. There have been early conversations with owner about the possibility of relocating those two buildings into the uptown project to consolidate a charming older building group on San Pablo with the extant Victorian buildings. Please give us your thoughts on that. **16**
  - The buildings on San Pablo while not historic resources under CEQA could provide a transition between the project and the old fabric of the City around it, particularly the Italianates and the hotel. **17**
  - Since the buildings along San Pablo have such small footprints, the developer might come up with a way to treat that block and retain those buildings. **18**
  - The extant garages on 20<sup>th</sup> Streets should be looked at because they are still inhabited by small businesses, which might be destroyed by this project. Look at small business' longstanding value to the uptown area. **19**
  - Consider impacts on buildings not within the project:
    - Don't discount the Kwik Way burger place, a discreet parcel to the north. **20**
    - The Fox – leave enough space behind the Fox so that whatever happens there can be accommodated.
    - Consider impacts on the Floral Depot.

October 21, 2003  
Uptown Mixed Use Project DEIR  
LPAB Comment Letter

4

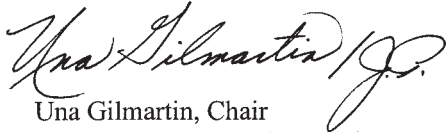
Anna Naruta

- Supports OHA remarks.
- Location of one of oldest Chinatowns in Oakland is in this project area.
- The buildings along San Pablo Avenue have small footprints and could be used to show transitions of the history of the city, along with interpretive exhibits.

**21**  
**22**

Please contact Joann Pavlinec, Secretary to the LPAB, at (510) 238-6344 if you have any questions regarding the above comments. Thank you for the opportunity to comment.

Sincerely,



Una Gilmartin, Chair  
Landmarks Preservation Advisory Board

## COMMENTOR D2

### Comment Letter from the Landmarks Preservation Advisory Board October 21, 2003

- D2-1: The commentor's statement, that partial or total demolition of the Great Western Power Company Building would be an unavoidable impact (even with mitigation), is consistent with the findings of the Draft EIR as expressed in Impacts HIST-4a and HIST-4b. The proposed Project includes a variant (Variant 3) that would include preservation of the structure. This variant is discussed on pages 221 and 224 of the Draft EIR.
- D2-2: Proposed development of Block 7 would adversely affect the historic settings of both the YMCA Building and the Great Western Power Company Building. However, as described on page 228 of the Draft EIR, although the proposed 19-story tower on Block 7 would alter views of the YMCA Building from the south, it would not compromise the characteristics of the YMCA Building that determine its eligibility for the California Register. Therefore, Block 7 development would result in a less-than-significant impact on the YMCA Building. Impact HIST-5 in the Draft EIR addresses the impact of new construction on the Great Western Power Company Building. Implementation of Mitigation Measure HIST-5 could reduce this impact to a less-than-significant level through the documentation of the Great Western Power Company's urban setting, and the evaluation of proposed buildings' design to ensure that, pursuant to *CEQA Guidelines* section 15064.5, they will not materially alter in an adverse manner: (1) those physical characteristics of the building that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or (2) those physical characteristics that account for the building's inclusion in a local register of historic resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in a historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or 3) those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by the lead agency for the purposes of CEQA. Discussion of the impacts of Block 7 development on the Great Western Power Company Building is found on page 224 and 225 of the Draft EIR.
- D2-3: Page 228 of the Draft EIR contains a discussion of the effects of the proposed Project on the Cathedral District. Although implementation of the proposed Project would alter views of the Cathedral District from the south, it would not substantially change the characteristics of individual buildings within the District in such a way that their California Register significance (or the significance of the District as a whole) would be compromised. The visual connection between the Cathedral District and the Uptown Entertainment District is currently undermined by the wide expanse of parking uses and vacant lots that comprise the majority of the Project site. Moreover, the integrity of the Cathedral District has been somewhat compromised by the demolition of the cathedral in 1993, as well as other contributing buildings as a result of the 1989 earthquake.



However, by developing an urban neighborhood that is similar in scale to surrounding neighborhoods, including Oakland City Center, the proposed Project would enhance the visual connection between the two Districts. CEQA requires mitigation only for significant environmental impacts. Therefore, no additional mitigation is required.

- D2-4: The ratings for the buildings at 1966-68 San Pablo Avenue and 1972 San Pablo Avenue are based on current Oakland Cultural Heritage Survey (OCHS) documentation, as provided by the City of Oakland. As described in the Draft EIR text, each of these buildings received a ranking of “secondary importance” in 2000. In addition, three of these buildings were identified as contributors to the 19<sup>th</sup> and San Pablo Commercial District, described in OCHS documentation as an Area of Secondary Importance. Also refer to Responses to Comments B4-8, B4-9 and B4-10.
- D2-5: Refer to Responses to Comments B4-8, B4-9 and B4-10.
- D2-6: Refer to Response to Comment B4-6.
- D2-7: Refer to Response to Comment B4-14.
- D2-8: Refer to Response to Comment B4-8, B4-9 and B4-10.
- D2-9: The City will consider the use of video photography as a potential media for documenting the 19<sup>th</sup> and San Pablo Commercial District. Mitigation Measure HIST-8 has been revised to include a reference to video photography. Refer to Response to Comment B4-8 or Chapter V of this document to see the revisions to Mitigation Measure HIST-8a.
- D2-10: Pages 215 and 216 list the policies in the City General Plan Historic Preservation Element that pertain to environmental review under CEQA and the proposed Project. These policies were used to evaluate the significance of impacts to historic buildings within and adjacent to the Project site.
- D2-11: The proposed Project includes a variant (Variant 3) that would include preservation of the Great Western Power Company Building. This variant is discussed on pages 221 and 224 of the Draft EIR.
- D2-12: The recommendation for the salvage and reuse of architectural features is a common element of architectural mitigation measures, and is used to retain some of the feeling and association of the former building at its original location. However, this reuse is a matter of design and architectural character within the new structures, not a CEQA issue. This comment is noted and will be considered by the decision-makers during the design review process for the Project.
- D2-13: Refer to Response to Comment B4-8. As stated on page 225 of the Draft EIR, the Project applicant is willing to publish advertisements in local newspapers to notify the public of the buildings’ availability for relocation.
- D2-14: Refer to Responses to Comments B4-11 and D1-16.

- D2-15: Demolition of the Great Western Power Company Building is considered a significant unavoidable impact in the Draft EIR. Refer to pages 221 to 224 of the Draft EIR for additional discussion.
- D2-16: This comment refers to the proposed Project, not to the analysis or conclusions contained in the Draft EIR; no additional response is necessary.
- D2-17: Refer to Master Response M-2 on page 18 of this document.
- D2-18: Refer to Response to Comment B4-14.
- D2-19: Refer to Responses to Comments B4-11 and D1-16.
- D2-20: The Draft EIR addresses potential Project impacts to historical architectural properties adjacent to the Project area, including the Oakland Floral Depot. The Project will not result in significant adverse effects to those elements of the Oakland Floral Depot, specifically the Art Deco-influenced architecture, that rendered it eligible for listing on the National Register of Historic Places. As described on page 228 of the Draft EIR, the Oakland Floral Depot's existing integrity of setting and feeling are compromised by surrounding contrasting development that has resulted in a varied mix of urban uses.
- D2-21: Refer to Master Response M-1 on page 14 of this document.
- D2-22: This comment refers to the proposed Project, not to the analysis or conclusions contained in the Draft EIR; no additional response is necessary. Refer to Response to Comment B4-8.

Comments from the Landmarks Preservation Advisory Board - November 3, 2003  
Meeting, on the Uptown Mixed Use Project Draft Environmental Impact Report:

Anna Naruta, Historical Archeologist, Oakland resident: Ms. Naruta addressed potential archaeological resources associated with Uptown Chinatowns, based on findings of resources close to the area slated for the uptown mixed use development project. Research indicates that two blocks from the proposed project area, there had been previous archaeological monitoring projects. In those project areas, the existing buildings were historic structures with basements (dug into the earth) and also some mid-20<sup>th</sup> century replacements. They actually found, in each area, remains even below the basements and in those areas associated with the mid-20<sup>th</sup> century buildings that had replaced historic buildings. This gives characterizing information indicating how likely it is that it can be expected that the uptown mixed use project will also encounter significant archaeological remains. Therefore, the mitigations in the Draft EIR need to be extended. Page 213 of the Draft EIR states that the project area has a likely hood of containing historical archaeological deposits. The next page states some of the deposits are likely to be associated with early Chinatown settlements and may be of use in answering important research questions. The proposed mitigation of just having an archeological monitor, which may be appropriate when you don't expect to have any archeological remains, is inadequate.

1

Steve Lowe: Has concerns regarding the Uptown Mixed Use Project and how it is currently configured. He stated that the project is wrongly configured with respect to the location of the park. The developers have stated that there would be some kind of forthcoming community dialogue to figure out where the park should be. Currently, it is in the middle of the project facing 20<sup>th</sup> Street. Many believe that it should be out on Telegraph, the heart of the area. Locating the park along Telegraph would provide a view corridor from the Fox Theatre to Navalets and would also incorporate views of the existing wonderful historic facades mixed with views of the new development. To deny that view, erodes the idea having a real center.

2

**COMMENTOR D3**  
**Landmarks Preservation Advisory Board Meeting**  
**November 3, 2003**

D3-1: Refer to Master Response M-1 on page 14 of this document.

D3-2: This comment refers to the proposed Project, not to the analysis or conclusions contained in the Draft EIR. Refer to Response to Comment B5-2.



## V. DRAFT EIR TEXT REVISIONS

This chapter presents all instances where text, tables or figures from the Draft EIR have been revised in response to comments raised during the public review. Revised text is indicated by underline text. Text deleted from the Draft EIR is shown in ~~strikeout~~. Page numbers correspond to the page numbers of the Draft EIR. This Responses to Comments document, in conjunction with the Draft EIR, constitutes the Final EIR.

Page 1 is revised as follows:

The Project site, which consists of a nine-block area, is located within the Uptown District of Oakland, as shown in Figure I-1. The proposed Project includes the following components: (1) approximately 1,300 residential units; (2) 1,050 student beds and faculty units; ~~and (3)~~ 43,000 feet of commercial space; ~~Associated Project components include a~~ (4) a 25,000 square-foot public park; (5) 1,959 parking spaces; and (6) the development of one public street within the Project site. The additional public street is intended to shorten block lengths and provide enhanced access within the Project site. Implementation of the proposed Project would result in the development of a mixed-use neighborhood in the Uptown District. Please refer to Chapter III, Project Description, for more details.

Page 3 is revised as follows:

The EIR, which was prepared and certified for the Land Use and Transportation Element (LUTE) of the Oakland General Plan, is used as one of the bases for this environmental review. Cumulative impacts and growth-inducing impacts in downtown Oakland have been analyzed in the General Plan LUTE EIR, and repeatedly in numerous EIRs completed for projects in the downtown area. The analysis included in Chapter IV.B, Population, Employment and Housing, of this EIR provides a confirmation that the proposed Uptown Project falls within the City's employment and population projections to the year 2025. Similarly, the LUTE EIR contained an analysis of alternatives and, pursuant to Public Resources Code section 21159.25, no further consideration of alternatives is required. Both the LUTE EIR and this EIR identify mitigation measures to reduce or eliminate potentially significant environmental impacts. The LUTE EIR, which was certified by the Oakland City Council in 1998, is hereby incorporated by reference into this EIR.<sup>1</sup> In addition, to ensure a comprehensive analysis, this focused EIR includes a cumulative analysis for potential impacts to transportation, air quality, noise, and historical resources.

Page 8 is revised as follows:

- Historic Architectural Resources (Great Western Power Company Building and 19<sup>th</sup> and San Pablo Commercial District)

Page 10, Table II-1, Summary of Impacts and Mitigation Measures, is revised as shown on the following page:

Page 45 is revised as follows:

At least 205 percent of the rental units constructed as part of the proposed Project (excluding any development on Block 5, 7, 8, and 8a student and faculty units, but including rental and condominium uses) will be affordable to very low income households earning 50 percent or less of the area's median income ~~would be priced at affordable levels.~~ ~~At least 20 percent of the units would be affordable to households earning up to 50 percent of the Alameda County Median Income;~~ ~~5~~ Five percent of the overall units would be affordable to households earning up to 120 percent of the area's median income. ~~Alameda County Median Income.~~

**Table II-1: Summary of Impacts and Mitigation Measures**

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<b>A. LAND USE</b>			
<i>The Project would not result in any significant impacts related to land use.</i>			
<b>B. POPULATION, EMPLOYMENT AND HOUSING</b>			
<i>The Project would not result in any significant impacts related to population, employment, and housing.</i>			
<b>C. HYDROLOGY AND WATER QUALITY</b>			
<p><u>HYD-1</u>: Construction activities for the Project could result in degradation of water quality in Lake Merritt and the Bay by reducing the quality of storm water runoff.</p>	<p>S</p>	<p><u>HYD-1</u>: The applicant shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) designed to reduce potential impacts to surface water quality through the construction and life of the Project. The SWPPP would act as the overall program document to provide measures to mitigate significant water quality impacts associated with implementation of the Project. The SWPPP shall include specific and detailed Best Management Practices (BMPs) required to mitigate significant construction-related pollutants. These controls shall include practices to minimize the contact of construction materials, equipment, and maintenance supplies (e.g., fuels, lubricants, paints, solvents, adhesives) with storm water. The SWPPP shall specify properly designed centralized storage areas that keep these materials out of the rain.</p> <p>An important component of the storm water quality protection effort will be the education of the site supervisors and workers. To educate on-site personnel and maintain awareness of the importance of storm water quality protection, site supervisors shall conduct regular tailgate meetings to discuss pollution prevention. The frequency of the meetings and required personnel attendance list shall be specified in the SWPPP.</p> <p>The SWPPP shall specify a monitoring program to be implemented by the construction site supervisor, and must include both dry and wet weather inspections. City of Oakland personnel shall conduct regular inspections to ensure compliance with the SWPPP.</p>	<p>LTS</p>



Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<u>HYD-1</u> <i>continued</i>		<p>BMPs to reduce erosion of exposed soil may include, but are not limited to: soil stabilization controls, watering for dust control, perimeter silt fences, placement of hay bales, and sediment basins. The potential for erosion is generally increased when grading occurs during the rainy season, as disturbed soil can be exposed to rainfall and storm runoff. If grading must be conducted during the rainy season, the primary BMPs selected shall focus on erosion control, that is, keeping sediment on the site. End-of-pipe sediment control measures (e.g., basins and traps) shall be used only as secondary measures. Access to and egress from the construction site shall be carefully controlled to minimize off-site tracking of sediment (this BMP is particularly important since much of the earthwork will involve loading trucks for off-site transport of soil excavated for the below-ground parking structures). Vehicle and equipment wash down facilities shall be designed to be accessible and functional both during dry and wet conditions.</p> <p>The SWPPP shall be reviewed for completeness by the City of Oakland, Public Works Agency, Environmental Services Division prior to approval of grading plans.</p>	
<p><u>HYD-2</u>: Post-construction operation of the Project could result in degradation of water quality in Lake Merritt due to a net decrease in the quality of storm water runoff.</p>	S	<p><u>HYD-2</u>: The applicant shall comply with the requirements of the 2003 Alameda County <i>Stormwater Management Plan</i> and/or the RWQCB Revised Order 01-024 (NPDES Permit No. CAS029718), as appropriate, based on the timing of construction. As applicable, the applicant shall incorporate measures to mitigate potential degradation of runoff water quality from all portions of the completed development, including roof and sidewalk runoff. The final design team for the Project should include all applicable measures from <i>Start at the Source</i>, Design Guidance Manual for Stormwater Quality Protection, which may include, but not be limited to pervious pavements, hybrid parking lots, vegetated swales, biofilters, roof drainage to landscaped areas, minimization of directly connected impervious surfaces, and infiltration islands.</p> <p>The Project compliance with requirements for post-construction stormwater controls shall be reviewed by the City of Oakland, Public Works Agency, Environmental Services Division prior to approval of grading plans.</p>	LTS

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<p><u>HYD-3</u>: Dewatering effluent may contain contaminants and if not properly managed could cause impacts to the environment.</p>	<p>S</p>	<p><u>HYD-3</u>: The SWPPP shall include requirements for the proper management of dewatering effluent as necessary to mitigate significant impacts to the environment. The Hazards section of this DEIR (Mitigation Measure HAZ-1b) addresses and mitigates potential impacts associated with health and safety impacts to site workers and the public associated with the dewatering effluent.</p> <p>At minimum, all dewatering effluent will be contained prior to discharge to allow the sediment to settle out, and filtered, if necessary, to ensure that only clear water is discharged to the storm or sanitary sewer system. Alternatively, effluent can be hauled off-site by tanker truck for disposal. Based on the historical land uses at the Project site and groundwater sampling of the existing network of monitoring wells, it is possible that groundwater underlying each of the parcels has been impacted by chemical releases. All dewatering effluent will be analyzed by a State-certified laboratory for the suspected pollutants (at minimum, petroleum hydrocarbons, solvents, and metals) prior to discharge. Based on the results of the analytical testing and the concentrations of pollutants identified, if any, the applicant will dispose of the water in one (or more) of the following ways:</p> <ul style="list-style-type: none"> <li>a) Discharge the water to the storm drain under permit from the RWQCB. It is unlikely that the RWQCB would allow discharge of any untreated dewatering effluent that contained detectable concentrations of chemical pollutants and that for these types of discharges, alternative disposal options may be required;</li> <li>b) Discharge the water to the sanitary sewer system under permit from the East Bay Municipal Utilities District;</li> <li>c) Haul the water to a licensed off-site disposal facility for treatment and disposal under appropriate manifest.</li> </ul> <p>The Project proponent shall demonstrate to the City of Oakland, Planning and Development Department that appropriate permits have been acquired prior to discharge of any dewatering effluent.</p>	<p>LTS</p>

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<b>D. TRANSPORTATION, CIRCULATION AND PARKING</b>			
<p><u>TRANS-1:</u> The addition of Project traffic to the Year 2010 Baseline condition would result in a significant adverse impact at the intersection of San Pablo Avenue/Thomas L. Berkley Way (20<sup>th</sup> Street). The intersection was identified as operating at LOS C in the Year 2010 No Project Condition in the PM peak hour. The addition of Project traffic would result in the intersection operating at LOS F in the PM peak hour.</p>	S	<p><u>TRANS-1:</u> Optimization of the signal timing at the intersection of San Pablo and Thomas L. Berkley Way (20<sup>th</sup> Street) would improve function to LOS D in the PM peak hour. This intersection functions as an integrated signal system with other intersections in the downtown area. To mitigate the Project’s impact at this location and others, the City shall prepare a signal optimization and coordination plan for the area bounded by San Pablo Avenue, Grand Avenue, Telegraph Avenue, and 17<sup>th</sup> Street prior to Project occupancy. The plan shall address the timing and equipment requirements, as necessary for all of the signalized intersections located within this area. The Project sponsor shall fund its fair share cost of the preparation of this plan and the implementation of the signal timing program. Implementation of the signal optimization program may also involve the purchase and installation of interconnection hardware (i.e. modems, microwave antennas, etc). <u>The City of Oakland will consult with AC Transit during preparation of the plan.</u></p> <p>Given that the Project sponsor is responsible for only a portion of this mitigation measure, implementation of this set of improvements will be funded fully by one or a combination of the following means:</p> <ol style="list-style-type: none"> <li>1. The Project sponsor shall fully fund the costs of the signalization improvements and <u>shall</u> be reimbursed through other fair-share contributions as future projects <del>occur</del> that <u>exceed</u> <del>fall within</del> the City’s thresholds of significance <u>occur</u>.</li> <li>2. The City, at <del>its</del> <u>their</u> sole discretion, shall establish a Traffic Improvement Program and concurrent Traffic Impact Fee Ordinance to fund the mitigation measure.</li> <li>3. The Redevelopment Agency, at <del>its</del> <u>their</u> sole discretion, shall contribute funds to the costs of implementation.</li> </ol>	LTS
<p><u>TRANS-2:</u> The addition of Project traffic to the Year 2010 Baseline condition would result in a significant adverse impact at the intersection of Telegraph Avenue/19<sup>th</sup> Street. The intersection was identified as operating at LOS D in the Year 2010 No Project Condition in the AM and PM peak hours. The addition of Project traffic would result in the intersection operating at LOS F in both the AM and PM peak hours.</p>	S	<p><u>TRANS-2:</u> Optimization of the signal timing at the intersection of Telegraph and 19<sup>th</sup> Street would improve the function to LOS C in both the AM or PM peak hours. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level.</p>	LTS

Table II-1 *continued*

<b>Environmental Impacts</b>	<b>Level of Significance Without Mitigation</b>	<b>Mitigation Measures</b>	<b>Level of Significance With Mitigation</b>
<p><u>TRANS-3:</u> In the 2010 No Project and Plus Project scenarios, the Frontage Road/West Grand Avenue intersection would operate at LOS F in the PM peak hour. The Project would cause the total intersection delay for the critical movements to increase by two or more seconds and result in a significant impact.</p>	<p>S</p>	<p><u>TRANS-3:</u> Widen the intersection to add a second exclusive left turn lane in the eastbound direction and an exclusive right turn lane in the westbound direction. The intersection would operate at LOS D in the PM peak hour with these improvements.</p> <p>The intersection of Frontage Road and West Grand Avenue is located on an elevated structure which is within the jurisdiction of Caltrans. The proposed mitigation measures would require the widening of the existing elevated structure and modification of the traffic signal. The second exclusive left turn lane in the eastbound direction and the exclusive right turn lane in the westbound direction should each be 300 feet in length with a 90-foot taper. Widening of the existing structure would require additional support columns and the acquisition of right of way underneath the structure. In addition, the connector from Interstate 880 to Interstate 80 structure exists above this intersection. Columns supporting this elevated connector may have to be relocated to widen the Frontage Road/West Grand Avenue intersection. At this time, the implementation of this mitigation measure would not be economically feasible. Because this intersection is located outside of the City of Oakland’s jurisdiction and because it is not economically feasible, it is significant and unavoidable.</p>	<p>SU</p>
<p><u>TRANS-4:</u> In the PM peak hour, the San Pablo/27<sup>th</sup> Street intersection would operate at LOS E in the Year 2025 No Project and Year 2025 Plus Project scenarios. The Project would cause the total intersection average vehicle delay to increase by six or more seconds.</p>	<p>S</p>	<p><u>TRANS-4:</u> Optimization of the signal timing at the intersection of San Pablo and 27th Street would improve function to a LOS D in the PM peak hour. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level.</p>	<p>LTS</p>
<p><u>TRANS-5:</u> The addition of Project traffic to the Year 2025 Baseline condition would result in a significant adverse impact at the intersection of San Pablo Avenue/West Grand Avenue. The intersection was identified as operating at LOS F in the Year 2025 No Project Condition in the PM peak hour. The addition of Project traffic would cause the total intersection average vehicle delay to increase by two or more seconds.</p>	<p>S</p>	<p><u>TRANS-5:</u> Optimization of the signal timing at the intersection of San Pablo and West Grand Avenue would improve the function to a LOS E in the PM peak hour. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level.</p>	<p>LTS</p>

Table II-1 *continued*

<b>Environmental Impacts</b>	<b>Level of Significance Without Mitigation</b>	<b>Mitigation Measures</b>	<b>Level of Significance With Mitigation</b>
<p><u>TRANS-6:</u> The addition of Project traffic to the Year 2025 Baseline condition would result in a significant adverse impact at the intersection of San Pablo Avenue/Thomas L. Berkley Way (20<sup>th</sup> Street). The intersection was identified as operating at LOS C in the Year 2025 No Project Condition in the PM peak hour. The addition of Project traffic would result in the intersection operating at LOS F.</p>	S	<p><u>TRANS-6:</u> Optimization the signal timing at the intersection of San Pablo and Thomas L. Berkley Way (20<sup>th</sup> Street). By optimizing the signal timing splits, the intersection would improve the function to a LOS D in the PM peak hour. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level.</p>	LTS
<p><u>TRANS-7:</u> The addition of Project traffic to the Year 2025 Baseline condition would result in a significant adverse impact at the intersection of Telegraph Avenue/West Grand Avenue. The intersection was identified as operating at LOS E in the Year 2025 No Project Condition in the AM peak hour. The addition of Project traffic would cause an increase in the average delay for critical movements to increase by more than six seconds in the AM peak hour.</p>	S	<p><u>TRANS-7:</u> Optimization of the signal timing and changing the cycle length to 65 seconds at this intersection would mitigate the delay that would result from the proposed Project. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level.</p>	LTS
<p><u>TRANS-8:</u> With the Project, the Telegraph Avenue/Thomas L. Berkley Way (20<sup>th</sup> Street) intersection LOS would degrade from LOS E to LOS F in the AM peak hour. In the PM peak hour, the Telegraph Avenue/Thomas L. Berkley Way (20<sup>th</sup> Street) intersection would operate at LOS F in the Year 2025 No Project and Year 2025 Plus Project scenarios.</p>	S	<p><u>TRANS-8:</u> Optimization of the signal timing in the AM peak hour and changing the cycle length to 70 seconds at this intersection would mitigate the Projects increase in delay. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level.</p>	LTS
<p><u>TRANS-9:</u> The Telegraph Avenue/William Street intersection would operate at LOS F in the PM peak hour in the Year 2025 No Project and Year 2025 Plus Project scenarios. The Project would cause the total intersection average delay to increase by two or more seconds. In addition, the Project would increase average delay for the critical movements by four or more seconds.</p>	S	<p><u>TRANS-9:</u> Changing the cycle length to 80 seconds and optimizing signal timing would improve the function of this intersection to LOS C in the PM peak hour. By optimizing the signal timing splits and changing the signal cycle, the Projects increase in delay would be mitigated. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level.</p>	LTS

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<p><b>TRANS-10</b> The addition of Project traffic to the Year 2025 Baseline condition would result in a significant adverse impact at the Telegraph Avenue/19<sup>th</sup> Street intersection. With the Project, the intersection LOS would degrade from LOS E to LOS F in the AM peak hour. In the PM peak hour, the Telegraph Avenue/19th Street intersection would operate at LOS F in the Year 2025 No Project and Year 2025 Plus Project scenarios. In addition, the Project would increase average delay for the critical movements by four or more seconds in the PM peak hour. Both of these changes are considered to be significant adverse impacts based on City standards.</p>	S	<p><b>TRANS-10:</b> The Project shall provide for the following two improvements.</p> <ul style="list-style-type: none"> <li>Optimize the signal timing at the intersection of Telegraph and 19th Street. Since this intersection also functions as part of an integrated signal system in downtown Oakland, Mitigation Measure <del>TRANS-1B</del> shall also be implemented.</li> <li>Restripe the westbound 19th Street approach to provide two exclusive through lanes and an exclusive right turn lane.</li> </ul> <p>With these improvements, the intersection would operate at LOS C in the AM peak hour and LOS E in the PM peak hour.</p> <p>The restriping of the westbound 19th Street approach to the intersection to provide two exclusive through lanes and an exclusive right turn lane would require the elimination of six metered parking spaces on the northern side of 19th Street between Telegraph and Broadway. With the existing roadway width available the two through lanes would each be 11 feet wide and the right turn lane would be 10 feet wide, which would satisfy City standards of 10-foot lanes. Metered parking would remain on the southern side of 19th Street.</p>	LTS
<p><b>TRANS-11</b> The Frontage Road/West Grand Avenue intersection would operate at LOS F in the AM and PM peak hours in Year 2025 No Project and Year 2025 plus Project conditions. The Project would cause the total intersection average vehicle delay to increase by two or more seconds in the AM and PM peak hours. In addition, the Project would increase in average delay for critical movements by four or more seconds.</p>	S	<p><b>TRANS-11:</b> Widen the eastbound approach to accommodate two left turn lanes, two through lanes, and a right turn lane. Widen the southbound approach would need to accommodate a right turn lane, a left turn lane, and a shared through/right turn lane. In addition, the northbound approach should be converted from a left turn lane, a through lane, and a shared through/right turn lane to a left turn lane, a shared through/right turn lane, and a right turn lane. With the proposed improvements, the intersection would operate at LOS C in the AM peak hour and LOS D in the PM peak hour.</p>	SU

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
TRANS-11 <i>continued</i>		The intersection of Frontage Road and West Grand Avenue is located on an elevated structure which is within the jurisdiction of Caltrans. The proposed mitigation measures would require the expansion of the existing elevated structure and modification of the traffic signal. Widening of the existing structure would require additional support columns and the acquisition of right of way underneath the structure. In addition, the connector from Interstate 880 to Interstate 80 structure exists above this intersection. Columns supporting this elevated connector may have to be relocated to pursue the widening of the Frontage Road/West Grand Avenue intersection. The implementation of this mitigation measure would not be economically feasible. Because this intersection is located outside of the City of Oakland's jurisdiction and because it is not economically feasible, it is significant and unavoidable.	
<u>TRANS-12</u> : The addition of Project traffic at the Mandela Parkway/West Grand Avenue intersection would cause the service level to degrade from LOS D in the Year 2025 No Project Condition to LOS E in the Year 2025 with Project Condition during the PM peak hour.	S	<u>TRANS-12</u> : Changing the cycle length to 110 seconds, providing protected left turn phases on the eastbound and westbound approaches, and optimizing the signal timing would improve the function of this intersection to a LOS D in the PM peak hour. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level.	LTS
<u>TRANS-13</u> : The Harrison/Grand Avenue intersection was found to operate at LOS E in the Year 2025 No Project and Year 2025 with Project Conditions during the PM peak hour. The Project would cause an increase in the average delay for critical movements by more than six seconds in the PM peak hour.	S	<u>TRANS-13</u> : Changing the cycle length to 110 seconds and optimizing the signal timing splits would mitigate the Project's impact. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level.	LTS
<u>TRANS-14</u> : In the PM peak hour, the Castro Street/17th Street /I-980 Off-Ramp intersection would operate at LOS E in the Year 2025 No Project and Year 2025 Plus Project scenarios. The Project would cause an increase in the average delay for the critical movements of six or more seconds.	S	<u>TRANS-14</u> : Optimization of the intersection's signal timing at this intersection would improve the function of this intersection to operate at LOS D in the PM peak hour. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level.	LTS

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<b>E. AIR QUALITY</b>			
<p><u>AIR-1</u>: Activities associated with demolition, site preparation and construction would generate short-term emissions of criteria pollutants, including suspended and inhalable particulate matter and equipment exhaust emissions.</p>	<p>S</p>	<p><u>AIR-1</u>: Implementation of the following mitigation measures would reduce this impact to a less-than-significant level.</p> <ul style="list-style-type: none"> <li>• The basic and enhanced control measures listed in Table IV.E-9 shall be implemented during construction of the proposed Project.</li> <li>• Any temporary haul roads to the soil stockpile area shall be routed away from existing neighboring land uses. Any temporary haul roads shall be surfaced with gravel and regularly watered to control dust or treated with an appropriate dust suppressant.</li> <li>• Water sprays shall be utilized to control dust when material is being added or removed from the stockpile. When the stockpile is undisturbed for more than 1 week, the storage pile shall be treated with a dust suppressant or crusting agent to eliminate wind-blown dust generation.</li> <li>• All neighboring properties located within 500 feet of property lines shall be provided with the name and phone number of a designated construction dust control coordinator who will respond to complaints within 24 hours by suspending dust-producing activities or providing additional personnel or equipment for dust control as deemed necessary. The phone number of the BAAQMD pollution complaints contact shall also be provided. The dust control coordinator shall be on-call during construction hours. The coordinator shall keep a log of complaints received and remedial actions taken in response. This log shall be made available to City staff upon its request.</li> </ul> <p>The above mitigation measures include all feasible measures for construction emissions identified by the BAAQMD. According to the District's threshold of significance for construction impacts, implementation of the measures would reduce construction impacts of the proposed Project to a less-than-significant level.</p>	<p>LTS</p>



Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<p><u>AIR-2</u>: Development of the Uptown Project would result in increased regional emissions of criteria air pollutants exceeding BAAQMD Thresholds.</p>	<p>S</p>	<p><u>AIR-2</u>: To the extent permitted by law, the Uptown Project shall be required to implement Transportation Control Measures (TCMs) as recommended by the BAAQMD. <del>However, the City of Oakland will implement as feasible on the basis that this Project is an infill mixed-used development project that in and of itself supports many Smart Growth Principles.</del> Measures that the City <del>may</del> <u>shall</u> require the Project to implement, or that are already proposed as part of the Project, include the following:</p> <ul style="list-style-type: none"> <li>• <i>Transit Measures</i>: (i) Construct transit facilities such as bus turnouts/bus bulbs, benches, shelters, <del>etc.</del> <u>and other needed facilities subject to the review and comment of AC Transit.</u> (Effectiveness 0.5 percent - 2 percent of all trips, BAAQMD <i>CEQA Guidelines</i>); (ii) Design and locate buildings to facilitate transit access (e.g., locate building entrances near transit stops, eliminate building setbacks, etc.) (Effectiveness 0.1 percent - 0.5 percent of all trips, BAAQMD <i>CEQA Guidelines</i>).</li> <li>• <i>Services Measures</i>: (i) Provide on-site shops and services for employees, such as cafeteria, bank/ATM, dry cleaners, convenience market, etc. (Effectiveness 0.5 percent - 5 percent of work trips, BAAQMD <i>CEQA Guidelines</i>); (ii) Provide on-site child care, or contribute to off-site childcare within walking distance. (Effectiveness 0.1 percent - 1 percent of work trips, BAAQMD <i>CEQA Guidelines</i>).</li> </ul>	<p>SU</p>

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<u>AIR-2</u> <i>continued</i>		<ul style="list-style-type: none"> <li><i>Bicycle and Pedestrian Measures:</i> (i) Provide secure, weather-protected bicycle parking for employees (Effectiveness 0.5 percent - 2 percent of work trips, BAAQMD <i>CEQA Guidelines</i>); (ii) Provide safe, direct access for bicyclists to adjacent bicycle routes (Effectiveness 0.5 percent - 2 percent of work trips, BAAQMD <i>CEQA Guidelines</i>); (iii) Provide showers and lockers for employees bicycling or walking to work (Effectiveness 0.5 percent – 2 percent of work trips, BAAQMD <i>CEQA Guidelines</i>); (iv) Provide secure short-term bicycle parking for retail customers or non-commute trips (Effectiveness 1 percent – 2 percent of non-work trips, BAAQMD <i>CEQA Guidelines</i>); (v) Provide direct, safe, attractive pedestrian access from Planning Area to transit stops and adjacent development (Effectiveness 0.5 percent - 1.5 percent of all trips, BAAQMD <i>CEQA Guidelines</i>).</li> </ul> <p>Implementation of the measures detailed above would help minimize this impact, but not reduce it to a less-than-significant level. Therefore, Impact AIR-2 will remain significant and unavoidable.</p>	
<b>F. NOISE</b>			
<u>NOISE-1:</u> Noise levels from construction activities may range up to 91 dBA L <sub>max</sub> at the nearest land uses to the Project site for limited time periods during the duration of construction for certain activities such as pile driving or the use of other heavy equipment..	S	<u>NOISE-1a:</u> Standard construction activities shall be limited to between 7:00 a.m. and 7:00 p.m. Monday through Friday. No construction activities shall be allowed on weekends until after the buildings are enclosed without prior authorization of the Building Services and Planning Divisions of the Community and Economic Development Agency.	LTS

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<p><u>NOISE-1</u> <i>continued</i></p>		<p><u>NOISE-1b</u>: To reduce daytime noise impacts due to construction, to the maximum feasible extent, the City shall require the applicant to develop a site-specific noise reduction program, subject to city review and approval, which includes the following measures:</p> <ul style="list-style-type: none"> <li>• Signs shall be posted at the construction site that include permitted construction days and hours, a day and evening contact number for the job site, and a day and evening contact number for the City in the event of problems;</li> <li>• An on-site complaint and enforcement manager shall be posted to respond to and track complaints;</li> <li>• A pre-construction meeting shall be held with the job inspectors and the general contractor/on-site Project manager to confirm that noise mitigation and practices are completed prior to the issuance of a building permit (including construction hours, neighborhood notification, posted signs, etc.);</li> <li>• Equipment and trucks used for Project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds, wherever feasible);</li> <li>• Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for Project construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed-air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed-air exhaust shall be used; this muffler can lower noise levels where feasible, which could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever feasible; and</li> <li>• Stationary noise sources shall be located as far from sensitive receptors as possible, and they shall be muffled and enclosed within temporary sheds, or insulation barriers or other measures shall be incorporated to the extent feasible.</li> </ul>	

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<p><u>NOISE-1</u> <i>continued</i></p>		<p><u>NOISE-1c</u>: If pile-driving occurs as part of the Project, it shall be limited to between 8:00 a.m. and 4:00 p.m., Monday through Friday, with no pile driving permitted between 12:30 and 1:30 p.m. No pile driving shall be allowed on Saturdays, Sundays, or holidays.</p> <p><u>NOISE-1d</u>: To further mitigate potential pile-driving and/or other extreme noise-generating construction impacts, a set of site-specific noise attenuation measures shall be completed under the supervision of a qualified acoustical consultant. This plan shall be submitted for review and approval by the City to ensure that maximum feasible noise attenuation is achieved. These attenuation measures shall include as many of the following control strategies as feasible and shall be implemented prior to any required pile-driving activities:</p> <ul style="list-style-type: none"> <li>• Implement “quiet” pile-driving technology, where feasible, in consideration of geotechnical and structural requirements and conditions;</li> <li>• Erect temporary plywood noise barriers around the entire construction site;</li> <li>• Utilize noise control blankets on the building structure as it is erected to reduce noise emission from the site;</li> <li>• Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings; and</li> <li>• Monitor the effectiveness of noise attenuation measures by taking noise measurements.</li> <li>• A third-party peer review, paid for by the applicant, shall be required to assist the City in evaluating the feasibility and effectiveness of the noise reduction plan submitted by the applicant.</li> <li>• A special inspection deposit is required to ensure compliance with the noise reduction plan. The amount of deposit shall be determined by the Building Official and the deposit shall be submitted by the project sponsor concurrent with submittal of the noise reduction plan.</li> </ul>	

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<u>NOISE-1</u> <i>continued</i>		<p><u>NOISE-1e:</u> A process with the following components shall be established for responding to and tracking complaints pertaining to pile-driving construction noise:</p> <ul style="list-style-type: none"> <li>• A procedure for notifying City Building Division staff and Oakland Police Department;</li> <li>• A list of telephone numbers (during regular construction hours and off-hours);</li> <li>• A plan for posting signs on-site pertaining to complaint procedures and who to notify in the event of a problem;</li> <li>• Designation of a construction complaint manager for the Project; and</li> <li>• Notification of neighbors within 300 feet of the Project construction area at least 30 days in advance of pile-driving activities.</li> </ul> <p>Construction period impacts would still occur with implementation of the measures detailed above. However, because they would be short-term in duration, the City considers this a less-than-significant impact.</p>	
<u>NOISE-2:</u> Local traffic will generate long-term noise levels exceeding <i>Normally Acceptable</i> and <i>Conditionally Acceptable</i> noise levels on the Project site.	S	<p><u>NOISE-2:</u> Once the project design is finalized and the location of specific uses are determined, the project applicant shall have an acoustical analysis prepared that details noise reduction requirements and noise insulation features necessary to achieve acceptable interior and exterior noise levels. The requirements shall be sufficient to achieve a minimum of 45 dBA for all interior building spaces and shall achieve either <i>Normally Acceptable</i> or <i>Conditionally Acceptable</i> ranges for exterior uses according to the applicable land use category as set forth in Table IV.F-4.</p> <p>Measures to reduce the interior noise levels may include:</p> <ul style="list-style-type: none"> <li>• To meet the City’s 45 dBA CNEL interior noise standard, building facade upgrades will be required for building located along Telegraph Avenue. All windows facing Telegraph Avenue must have a sound transmission class (STC) of 31 or greater.</li> </ul>	LTS

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<u>NOISE-2</u> <i>continued</i>		<ul style="list-style-type: none"> <li>All of the proposed buildings on the project site shall be designed and constructed with ventilation systems, to achieve the indoor fresh-air ventilation requirements specified in Chapter 35 of the Uniform Building Code, to achieve the 45 dBA CNEL interior noise standard.</li> </ul> <p>Measures to reduce the exterior noise levels may include:</p> <ul style="list-style-type: none"> <li>The inclusion of plexiglass enclosures for outdoor patio and balcony areas at a height of 5 feet (i.e., to shield balconies and outdoor patio areas) would provide 5dBA or more in noise reduction for outdoor use areas.</li> </ul> <p>Implementation of the above mitigation measure would reduce this impact to a less-than-significant level by achieving, at a minimum, <i>Conditionally Acceptable</i> noise levels.</p>	
<u>NOISE-3</u> : Long-term stationary noise sources on the Project site could potentially generate noise levels in excess of the thresholds set in Section 17.120.050 of the City’s Planning Code.	S	<p><u>NOISE-3</u>: The following measures are required for the operations of the proposed Project:</p> <ul style="list-style-type: none"> <li>All on-site stationary noise sources shall comply with the standards listed in Section 17.120.050 of the City’s Planning Code; and</li> <li>Loading docks or loading areas and noise-generating equipment associated with the retail uses will be located as far as practical from all existing and planned residential properties.</li> </ul> <p>Implementation of the above mitigation measure would reduce the impact to below a level of significance.</p>	LTS

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<b>G. HAZARDS AND HAZARDOUS MATERIALS</b>			
<p><u>HAZ-1</u>: Development of the Project could expose construction workers and/or the general public to hazardous materials from contaminated soil and groundwater during construction activities.</p>	S	<p><u>HAZ-1a</u>: Prior to issuing any grading, demolition or building permits for the proposed Project affecting Project site Blocks 3 through 9, an environmental investigation shall be conducted at the site by a qualified environmental professional. The environmental investigation shall implement appropriate sampling recommendations presented in previously conducted Phase I site assessment(s) prepared for the Project site, as summarized in Table IV.G-3, in order to adequately characterize subsurface conditions of the site. Environmental investigation workplans shall be submitted to the City of Oakland and RWQCB for review and approval. Information from the environmental investigation shall be used to develop and implement site-specific health and safety plans for construction workers and best management practices (e.g., dust control, storm water runoff control, etc.) appropriate to protect the general public.</p> <p><u>HAZ-1b</u>: Prior to issuing any grading, demolition, or building permit for the proposed Project, a site-specific Health and Safety Plan (HSP) shall be prepared by a qualified industrial hygienist. At a minimum, the HSP shall summarize information collected in environmental investigations for the Project site, including soil and groundwater quality data; establish soil and groundwater mitigation and control specifications for grading and construction activities, including health and safety provisions for monitoring exposure to construction workers; provide procedures to be undertaken in the event that previously unreported contamination is discovered; incorporate construction safety measures for excavation activities; establish procedures for the safe storage and use of hazardous materials at the Project site, if necessary; provide emergency response procedures; and designate personnel responsible for implementation of the Plan. The HSP shall be designed to prevent potential exposures to construction workers above established OSHA Permissible Exposure Limits. The Plan shall be submitted to the City of Oakland for review and approval.</p>	LTS

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<u>HAZ-1</u> <i>continued</i>		<u>HAZ-1c</u> : Prior to issuing any grading, demolition, or building permit for the proposed Project, a Soil and Groundwater Management Plan (Plan) shall be prepared. The Plan shall include procedures for managing soils and groundwater removed from the site to ensure that any excavated soils and/or dewatered groundwater with contaminants are stored, managed, and disposed of safely, in accordance with applicable regulations. The Plan will incorporate notification and dust mitigation requirements of the BAAQMD (including Title 17, CCR Section 93105). Dewatering procedures will incorporate regulatory requirements for groundwater discharge to storm or sanitary sewers, as outlined in Mitigation Measure HYD-3. The Plan shall be submitted to the City of Oakland and RWQCB for review and approval and shall be implemented throughout all phases of Project development.	
<u>HAZ-2</u> : Development of blocks with soil and/or groundwater contamination could expose future residents and workers to potentially hazardous concentrations of contaminants.	S	<p><u>HAZ-2a</u>: Covenants, codes, and restrictions for the proposed Project shall strictly prohibit the use of groundwater at the Project site for drinking, irrigation, or industrial purposes. Any dewatering activities required at the Project site following construction activities shall be required to be carried out under the Soil and Groundwater Management Plan prepared for the Project (Mitigation Measure HAZ-1c).</p> <p><u>HAZ-2b</u>: Prior to issuing any permits for construction within the Project site, a Human Health Risk Assessment (HHRA) shall be conducted and/or updated by a qualified environmental professional. This HHRA shall employ methodology from the <i>City of Oakland Urban Land Redevelopment: Guidance Document</i> for the Oakland Risk Based Corrective Action (RBCA) program to evaluate potential health risks from petroleum hydrocarbons, metals, solvents, and other volatile organic compounds in soils and groundwater. Depending on the findings of the HHRA, recommendations may be made for administrative or engineering controls to minimize public exposure to hazardous materials, if warranted. These controls could potentially include vapor barriers for building foundations, encapsulation of the site with building foundations and paved parking surfaces to prevent exposure to soils, and implementation of an Operations and Maintenance Plan to insure prescribed controls are implemented and maintained. The controls shall ensure that any potential added health</p>	LTS



Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<u>HAZ-2</u> <i>continued</i>		risks to future site users are reduced to a cumulative risk of less than $1 \times 10^{-5}$ (a calculated risk of 1 in 100,000 persons exposed) for carcinogens and a cumulative hazard index of 1.0. The HHRA shall be submitted to the City of Oakland and RWQCB for review and approval.	
<u>HAZ-3</u> : Improper use or transport of hazardous materials during construction activities could result in releases affecting construction workers and the general public.	S	<u>HAZ-3</u> : The implementation of Mitigation Measure HAZ-1b would require a Site Safety Plan/Soil and Groundwater Management Plan (Plan). The Plan will establish procedures for the safe storage and use of hazardous materials at the Project site, if necessary; provide emergency response procedures; and designate personnel responsible for implementation of the Plan. No other mitigation is required.	LTS
<u>HAZ-4</u> : Demolition of buildings that contain lead-based paint and asbestos-containing building materials would release airborne lead and asbestos particles, which may adversely affect construction workers and the public.	S	<u>HAZ-4</u> : All asbestos-containing materials shall be abated by a certified asbestos abatement contractor in accordance with construction worker health and safety regulations and the regulations and notification requirements of the Bay Area Air Quality Management District (BAAQMD) (29 CFR 1926.1101; 40 CFR 61 and 152; Title 8 CCR Section 1529; BAAQMD Regulation 11, Rule 2). The removal and disposal of lead-based paint within the Project site shall be completed in accordance with federal and State construction worker health and safety regulations (29 CFR, Part 1926.62; Title 8, CCR Section 532.1; CDHS Training, Certification and Workpractices Rule).	LTS
<u>HAZ-5</u> : Development of the Project could result in hazardous emissions or the handling of hazardous materials, substances, or waste within ¼-mile of a proposed school.	S	<u>HAZ-5</u> : Implementation of existing regulatory requirements for school siting, and preparation and implementation of a Site Safety Plan/Soil and Groundwater Management Plan (Mitigation Measure HAZ-1b) and lead and asbestos regulations (Mitigation Measure HAZ-4) would reduce this impact to a less-than-significant level. No additional mitigation is required.	LTS
<b>H. UTILITIES AND INFRASTRUCTURE</b>			
<i>The Project would not result in any significant impacts related to infrastructure and utilities.</i>			

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<b>I. HISTORIC ARCHITECTURAL, ARCHAEOLOGICAL AND PALEONTOLOGICAL RESOURCES</b>			
<p><u>HIST-1:</u> Ground-disturbing activities for the construction of subterranean parking structures, building foundations, and underground sewer and utility facilities could adversely impact paleontological resources.</p>	S	<p><u>HIST-1a:</u> A paleontological resources monitoring plan shall be developed in consultation with a qualified paleontologist prior to Project-related ground-disturbing activities. This monitoring plan shall incorporate the findings of Project-specific geotechnical investigations to identify the location and depth of deposits that have a high likelihood of containing paleontological resources and that may be encountered by Project activities. This information will indicate the depth of overlying non-sensitive soils (i.e., artificial fill and prior disturbance) within the Project area to allow a more effective determination of where paleontological monitoring is appropriate.</p> <p><u>HIST-1b:</u> A qualified paleontologist shall monitor all ground-disturbing activity that occurs at depths within the Project area determined to be sensitive in the paleontological monitoring plan. Monitoring shall continue until, in the paleontologist's opinion, significant, nonrenewable paleontological resources are unlikely to occur.</p> <p>In the event that paleontological resources are encountered during excavation, all work within 50 feet of the find shall be redirected until the monitor has evaluated the situation and provided recommendations for the protection of, or mitigation of adverse effects to, significant paleontological resources. Mitigation for impacts to significant paleontological resources shall include thorough documentation of the find and its immediate context to recover scientifically-valuable information. Upon completion of paleontological monitoring, a monitoring report shall be prepared. This scope of this report shall be approved by the City, but at a minimum the report will document the methods, results, and recommendations of the monitoring paleontologist.</p>	LTS
<p><u>HIST-2:</u> Ground-disturbing activities for the construction of subterranean parking structures, building foundations, and underground sewer and utility facilities could adversely impact cultural resources .</p>	S	<p><del><u>HIST 2:</u> A qualified archaeologist shall monitor all ground disturbing activities in the Project area until, in the archaeologist's opinion, a depth has been reached at which potentially significant archaeological deposits are unlikely to occur.</del></p>	LTS

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<u>HIST-2</u> <i>continued</i>		Should an archaeological deposit be encountered by Project activities, the monitor shall be empowered to halt construction in the vicinity of the find. Construction activities shall be redirected and a qualified archaeologist shall: 1) evaluate the archaeological deposit to determine if it meets the CEQA definition of a historical or archaeological resource; and 2) make recommendations about the treatment of the deposit, as warranted. If the deposit does not meet the CEQA definition of a historical or archaeological resource, then no further study or protection of the deposit is necessary. If the deposit does meet the CEQA definition of a historical or archaeological resource, then it shall be avoided by Project activities. If avoidance is not feasible, then effects to the deposit shall be mitigated through a data recovery strategy developed by the evaluating archaeologist. Mitigation of impacts to significant archaeological deposits through data recovery will recover scientifically valuable information. This mitigation may include, but is not limited to, a thorough recording of the resource on DPR Form 523 records, or archaeological excavation. If archaeological excavation is the only feasible method of data recovery, then such excavation shall conform to the provisions of CEQA Guidelines §15126.4(b)(3)(C).	

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<p><u>HIST-2</u> <i>continued</i></p>		<p><u>HIST-2a: A pre-construction archaeological testing program shall be implemented to help identify whether historic or unique archaeological resources exist within the Project site. Examples of potential historic or unique archaeological resources that could be identified within the Project site include: back-filled wells; basements of buildings that pre-date Euro-American buildings that were constructed on the Project site; and backfilled privies. For these resources to be considered significant pursuant to CEQA, they would have to have physical integrity and meet at least one of the criteria listed in CEQA Guidelines section 15064.5(a)(3) (for historic resources) and/or CEQA section 21083.2(g) (for unique archaeological resources). These criteria include: association with events that have made a significant contribution to the broad patterns of California history and cultural heritage; association with the lives or persons important in our past; embodiment of the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; yield, or may likely yield, information important in prehistory or history; contains information needed to answer important scientific research questions and be subject to a demonstrable public interest in that information; have a special and particular quality such as being the oldest of its type or the best available example of its type; or be directly associated with a scientifically recognized important prehistoric or historic event or person.</u></p> <p><u>The testing program, in conjunction with a sensitivity study, shall use a combination of subsurface investigation methods (including backhoe trenching, augering, and archaeological excavation units, as appropriate). The purpose of the testing program is to: (1) identify the presence and location of potentially-significant archaeological deposits; (2) determine if such deposits meet the definition of a historical resource or unique archaeological resource under section 21083.2(g) of the CEQA statutes; (3) guide additional archaeological work, if warranted, to recover the information potential of such deposits; and (4) refine the archaeological monitoring plan.</u></p>	

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<p><u>HIST-2</u> <i>continued</i></p>		<p><u>If historic or unique archaeological resources associated with the Chinese community are identified within the project site and are further determined to be unique, the City shall consult with representatives of an established local Chinese-American organization regarding the potential use of the archaeological findings for interpretive purposes.</u></p> <p><u>HIST-2b: Archaeological monitoring of ground-disturbing construction in the Project area shall be conducted, as appropriate and if necessary, based on the results of the pre-construction testing program and the potential for encountering unidentified archaeological deposits. Upon completion of the pre-construction testing program specified in Mitigation Measure HIST-2a, the extent of archaeological monitoring during Project construction will be assessed, and the scope and frequency of the monitoring required by this mitigation measure shall be based on the findings of this assessment. Monitoring shall be conducted by a cultural resource professional approved by the City who meets the Secretary of the Interior's Professional Qualifications Standards for Prehistoric and Historical Archaeology.</u></p> <p>Upon completion of such archaeological monitoring, evaluation, or data recovery mitigation, the archaeologist shall prepare a report documenting the methods, results, and recommendations of the investigation, and submit this report to the NWIC. <u>Public displays of the findings of archaeological recovery excavation(s) of historical or unique resources shall be prepared. As appropriate, brochures, pamphlets, or other media, shall be prepared for distribution to schools, museums, libraries, and – in the case of Chinese-American archaeological deposits – Chinese-American organizations.</u></p>	

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<p><u>HIST-3</u>: Ground-disturbing activities for the construction of subterranean parking structures, building foundations, and underground sewer and utility facilities could disturb human remains, including those interred outside of formal cemeteries.</p>	<p>S</p>	<p><u>HIST-3</u>: Should human remains be encountered by Project activities, construction activities shall be halted and the County Coroner notified immediately. If the human remains are of Native American origin, the Coroner must notify the Native American Heritage Commission (NAHC) within 24 hours of this identification, and a qualified archaeologist should be contacted to evaluate the situation. The NAHC will identify a Native American Most Likely Descendent (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. The archaeologist shall recover scientifically-valuable information, as appropriate and in accordance with the recommendations of the MLD.</p> <p>Upon completion of such analysis, as appropriate, the archaeologist shall prepare a report documenting the methods and results of the investigation. This report shall be submitted to the NWIC.</p>	<p>LTS</p>
<p><u>HIST-4a (Variant 1: Demolition; Variant 2: Partial Demolition)</u>: The proposed Project may result in full or partial demolition of the Great Western Power Company Building, which is a local historical resource.</p>	<p>S</p>	<p><u>HIST-4a (Variant 1 and 2)</u>: The following measures shall be implemented to preserve information about the resource for further study:</p> <ul style="list-style-type: none"> <li>• Record the Great Western Power Company Building in accordance with the procedures of the Historical American Buildings Survey (HABS) through measured drawings, written histories, and large-format photographs;</li> <li>• Prepare a history of the Great Western Power Company Building that incorporates oral history, documentary research, and architectural information;</li> <li>• Prepare a brochure, regarding the building's historical association with one of three major early 20th century northern California power companies, to be made available at local libraries and museums;</li> <li>• <u>Incorporate interpretive elements, such as signs and placards, into public areas and street frontages proposed as part of the Project.</u></li> </ul>	<p>SU</p>

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<u>HIST-4</u> <i>continued</i>		<ul style="list-style-type: none"> <li>• If full demolition of the building occurs, salvage architectural elements from the building, including hardware, doors, paneling, fixtures, and equipment, and incorporate these elements into new construction; and</li> <li>• Curate all materials, notes, and reports at the OHR, and submit copies to the NWIC.</li> </ul> <p>Even with extensive documentation, however, the demolition of the building or portions of the building would result in the loss of a historic resource that is associated with significant historical events and is an example of outstanding design and function. Therefore, the demolition or partial demolition of the building would remain a significant and unavoidable impact.</p>	
<u>HIST-4b (Variant 3: Preservation)</u> : Modification and reuse of the Great Western Power Company Building could adversely affect a historical resource.	S	<u>HIST-4b (Variant 3)</u> : Any modifications to the exterior of the building that may be proposed as part of its preservation and reuse shall be developed in consultation with staff at the Planning Department and a qualified historic preservation architect to determine an appropriate treatment strategy. In the event that this measure is determined feasible and is implemented, Mitigation Measure HIST-5 shall also be implemented to ensure that development on the adjacent properties does not adversely impact the building's integrity.	SU

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<p><u>HIST-5 (Variant 3)</u>: Site clearance within the Project area adjacent to the Great Western Power Company Building could adversely impact a historical resource.</p>	<p>S</p>	<p><u>HIST-5 (Variant 3)</u>: The following two-part mitigation measure shall be implemented:</p> <ul style="list-style-type: none"> <li>• The building’s urban setting on the portion of Block 7 fronting Thomas L. Berkley Way (20<sup>th</sup> Street) shall be documented prior to Project implementation. At a minimum, this documentation shall include panoramic streetscape photographs and an interpretive display that shall provide an overview of the former urban context and describe how this context contributed to the building’s significance. This information shall be presented in an on-site display at the preserved Great Western Power Company Building to enable a viewer to easily associate the former setting with the existing building (i.e., panoramic streetscape photographs to show the building within the former street frontage). Upon completion of this documentation, a copy of all notes, photographs, and analysis shall be archived at the OHR and submitted to the NWIC.</li> <li>• The City shall ensure that the designs for new adjacent buildings are evaluated with respect to minimizing setting impacts on the historic resource. Project buildings adjacent to the Great Western Power Company Building shall be designed in a manner that minimizes inappropriate differences in mass and scale, if feasible. For example, designs could call for adjacent buildings to step-up to the height of the tallest Project element north of 20<sup>th</sup> Street, thereby reducing a potentially abrupt contrast between new buildings and the two-story Great Western Power Company Building. If the designs for the adjacent buildings follow the Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for the Preservation of Historic Buildings, then the Project will have a less-than-significant impact, pursuant to CEQA §15064.5(b)(3).</li> </ul>	<p>LTS</p>



Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<p><u>HIST-6</u>: Site clearance within the Project area could adversely impact four Potential Designated Historic Properties (PDHPs) in the Project area.</p>	LTS	<p><u>HIST-6</u>: If the relocation of the PDHPs proposed for demolition on the Project site is not feasible, the buildings shall be documented at a level of detail commensurate with their local importance. At a minimum, this effort shall include photo-documentation, as well as local oral history about the past uses and occupants of the buildings. This documentation shall be planned in consultation with OCHS in order to: 1) identify those qualities that support and justify the property's local significance; and 2) efficiently record and disseminate such information in a way that most effectively offsets the loss of such buildings. At the completion of this documentation, all notes, photographs, and analysis shall be archived at the OHR, and a complete copy shall be submitted to the NWIC.</p>	LTS
<p><u>HIST-7</u>: Project demolition and construction could adversely impact the setting of the 19<sup>th</sup> and San Pablo Commercial District.</p>	<del>S</del> -LTS	<p><u>HIST-7</u>: No mitigation measure is necessary to address <del>this the</del> less-than-significant impact.</p>	LTS
<p><u>HIST-8</u>: Project demolition and construction could result in a significant cumulative impact on the 19<sup>th</sup> and San Pablo Commercial District.</p>	S	<p><u>HIST-8a</u>: <u>If feasible, the three PDHPs that contribute to the 19<sup>th</sup> and San Pablo Commercial District (located at 1958-60 San Pablo Avenue, 1966-68 San Pablo Avenue, and 1972 San Pablo Avenue) shall be preserved in their existing condition or rehabilitated and incorporated into the proposed Project. Any modifications to the exterior of the buildings that may be proposed as part of their rehabilitation shall be developed in consultation with the Planning Department and a qualified historic preservation architect to determine an appropriate treatment strategy that preserves the important historic qualities of the structures.</u></p> <p><u>HIST-8b</u>: <u>If the City determines that preservation of the three PDHPs that contribute to the 19<sup>th</sup> and San Pablo Commercial District (located at 1958-60 San Pablo Avenue, 1966-68 San Pablo Avenue, and 1972 San Pablo Avenue) is not feasible, the City shall inform the applicant for the Thomas L. Berkley Square Project of the potential cumulative impact prior to the implementation of the Uptown Mixed-Use Project. The City shall consult with both project applicants to establish a fair division of responsibility to fund mitigation measures to preserve information about the 19<sup>th</sup> and San Pablo Commercial District for future study. These mitigation measures shall include the following:</u></p>	LTS  SU

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
HIST-8 <i>continued</i>		<ul style="list-style-type: none"> <li>• Record the 19<sup>th</sup> and San Pablo Commercial District in accordance with the procedures of HABS through measured drawings, written histories, and large-format photographs;</li> <li>• Prepare a history of the 19th and San Pablo Commercial District that incorporates oral history, documentary research, and architectural information; <u>this history could utilize non-written media and production techniques, including video photography;</u></li> <li>• Prepare a brochure, regarding the district’s historical association with turn-of-the-century Oakland commerce, to be made available at local libraries and museums;</li> <li>• Salvage architectural elements from the buildings proposed for demolition, including hardware, doors, paneling, fixtures, and equipment, and incorporate these elements into new construction; and</li> <li>• Curate all materials, notes, and reports at the OHR, and submit copies to the NWIC.</li> </ul> <p>Even with extensive documentation, however, a cumulative impact will result from the demolition of <del>66</del> <u>63</u> percent of the 19<sup>th</sup> and San Pablo Commercial District’s contributing buildings. This loss of contributing buildings will materially affect the district’s ability to convey its historical significance, which will result in a significant, unavoidable cumulative impact.</p>	
<u>HIST-9</u> : Site clearance within the Project area could adversely impact historical buildings resources inventoried by the OCHS.	LTS	<u>HIST-9</u> : No mitigation measure is necessary to address <del>this</del> <u>the</u> less-than-significant impact.	LTS
<u>HIST-10</u> : The construction of Project buildings could adversely impact historic architectural resources adjacent to the Project area.	LTS	<u>HIST-10</u> : No mitigation measure is necessary to address <del>this</del> <u>the</u> less-than-significant impact.	LTS
<u>HIST-11</u> : The proposed Project could impact the setting of the Fox Oakland Theater.	LTS	<u>HIST-11</u> : No mitigation measure is necessary to address this less-than-significant impact.	LTS
<u>HIST-12</u> : The proposed Project could impact the operations of the Fox Oakland Theater and, therefore, indirectly impact its architectural qualities.	LTS	<u>HIST-12</u> : No mitigation measures is necessary for this less-than-significant impact.	LTS

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<p><u>HIST-13</u>: The enhancement of streetscape features and lighting on streets fronting the Project area may impact historical resources, including elements of the Uptown Shopping/ Entertainment Historic District and the Fox Oakland Theater.</p>	S	<p><u>HIST-13</u>: Prior to Project initiation, the plan for the enhancement of street features and lighting on Telegraph Avenue shall be reviewed by planning staff to ensure that it conforms to the <i>Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Preservation of Historic Buildings</i>. Conformance with these guidelines will ensure that these improvements are compatible with nearby historical resources, and will mitigate potential Project effects to less-than-significant levels.</p>	LTS
<b>J. AESTHETIC RESOURCES</b>			
<p><u>AES-1</u>: The proposed Project would alter the intrinsic architectural character of the Project site and its surroundings.</p>	S	<p><u>AES-1</u>: The following measures shall be incorporated into the final Project design:</p> <ul style="list-style-type: none"> <li>• Create streetscape vitality and enhance the pedestrian experience through detailed treatment of building facades, including entryways, fenestration, and signage, and through the use of carefully chosen building materials, texture, and color.</li> <li>• Design of building facades shall include sufficient articulation and detail to avoid the appearance of blank walls or box-like forms.</li> <li>• Exterior materials utilized in construction of new buildings, as well as site and landscape improvements, shall be high quality and shall be selected for both their enduring aesthetic quality and for their long term durability.</li> <li>• Ensure that the architectural and landscape treatment of the proposed parking structure promotes human scale and pedestrian activity.</li> <li>• Detailed designs for the public park shall be developed. The design shall emphasize the public nature of the space and pedestrian comfort. The plaza design shall consider sun/shade patterns during mid-day hours throughout the year. The plaza design shall be sensitively integrated with the streetscape.</li> </ul>	LTS

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<p><u>AES-2</u>: The proposed development would provide additional sources of nighttime lighting in the downtown.</p>	<p>S</p>	<p><u>AES-2a</u>: The specific reflective properties of Project building materials shall be assessed by the City during Design Review as part of the Project's Development Standards, Procedures and Guidelines. Design review shall ensure that the use of reflective exterior materials is minimized and that proposed reflective material would not create additional daytime or nighttime glare.</p> <p><u>AES-2b</u>: Specific lighting proposals shall be reviewed and approved by the City prior to installation. This review shall ensure that any outdoor night lighting for the Project is down shielded and would not create additional nighttime glare.</p>	<p>LTS</p>
<p><b>K. WIND</b></p>			
<p><u>WIND-1</u>: Construction of 19-story buildings on Blocks 5 and 7 could result in wind speeds of over 36 mph.</p>	<p>S</p>	<p><u>WIND-1a</u>: The final design of the high-rise buildings on Blocks 5 and 7 shall be in accordance with one or more of the following design guidelines. In addition, as part of the design review process for these high-rise buildings, a qualified wind consultant shall ensure the Project is designed in accordance with these guidelines:</p> <ul style="list-style-type: none"> <li>• Align long axis of each building along a northwest-southeast alignment to reduce exposure of the wide faces of the building to westerly or southeasterly winds.</li> <li>• West or southeasterly building faces shall be articulated and modulated through the use of architectural devices such as surface articulation; variation; variation of planes, wall surfaces, and heights; and the placement of setbacks and other similar features.</li> <li>• Utilize properly-located landscaping that mitigates high winds. Porous materials (e.g., vegetation, hedges, screens, latticework, perforated metal), which offer superior wind shelter compared to solid surfaces, shall be used.</li> <li>• Avoid narrow gaps between buildings where westerly or southeasterly winds could be accelerated; or</li> <li>• Avoid breezeways or notches at the upwind corners of the building.</li> </ul>	<p>LTS</p>

Table II-1 *continued*

Environmental Impacts	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
WIND-1 <i>continued</i>		<p><b>WIND-1b:</b> A qualified wind consultant shall review and evaluate the final design of the high-rise buildings on Blocks 5 and 7, and shall determine whether incorporated design features would reduce wind impacts to a less-than-significant level. If the wind consultant determines that these design features would reduce wind impacts to a less-than-significant level (i.e., less than 36 mph), no further mitigation would be required. If the wind consultant determines that significant adverse wind impacts could occur, models of the proposed Blocks 5 and 7 buildings shall be subject to wind tunnel testing to determine if the buildings would result in uncomfortable or hazardous winds. The wind consultant shall work with the Project architect to develop further building design modifications that would reduce wind impacts to a less-than-significant level (i.e., standard of less than 36 mph).</p>	
<p><b>L. SHADE AND SHADOW</b> <i>The Project would not result in any significant impacts related to shade and shadows.</i></p>			

Page 47, Figure III-3, has been added to the Draft EIR, as shown on the following page.

Page 47 is revised as follows:

### 7. Demolition and Construction

Demolition activities would include the removal of all existing structures on Blocks 1 through 7, including approximately 20 buildings, with the possible exception of the Greater Western Power Company Building (also known as Navlet’s Florist and Nursery). Proposed building demolition is shown in Figure III-3. The Project applicant is proposing the following three variants in regard to the Great Western Power Company Building:

Page 49 is revised as follows:

**Table III-4: Required Permits and Approvals**

Lead Agency	Permit/Approval
City of Oakland Planning Commission City Council Redevelopment Agency	<ul style="list-style-type: none"> <li>Major Conditional Use Permit for <del>creation of a new park a project over 100,000 square feet in size and for</del> Demolition of <u>rooming Single-Residency Occupancy (SRO)</u> units</li> <li>Design Review</li> <li>Planned Unit Development (preliminary and final)</li> <li>Minor Conditional Use Permits or Variances, if determined necessary once detailed plans are submitted</li> <li>Redevelopment Agency actions, including a Disposition and Development Agreement and acquisition of land</li> <li>Subdivision Maps to combine parcels, create new parcels or create condominiums, if proposed</li> <li><del>DDA</del></li> <li>General Plan Amendment <u>and Rezoning</u> to designate proposed park as open space</li> </ul>
<b>Responsible Agencies</b>	
East Bay Municipal Utility District (EBMUD)	<ul style="list-style-type: none"> <li>Approval of water line, water hookups and review of water needs</li> </ul>
California Department of Transportation (Caltrans)	<ul style="list-style-type: none"> <li>Approval of plans and encroachment permit for improvements located within the State right-of-way; improvements within the public right-of-way; excavation for utilities; clean-up of contamination; condemnation of property (if required); and traffic improvements (including re-paving, re-striping, signal improvements, street lights, and signal optimization)</li> </ul>
California Regional Water Quality Control Board (RWQCB)	<ul style="list-style-type: none"> <li>National Pollutant Discharge Elimination System (NPDES) permit for stormwater discharge</li> <li>Approval and oversight of required remediation plans</li> </ul>
<b>Other Agencies</b>	
SBC (prev. Pacific Bell)	<ul style="list-style-type: none"> <li><del>Approval of communication line improvements and connection permits</del></li> </ul>
Pacific Gas & Electric (PG&E)	<ul style="list-style-type: none"> <li><del>Approval of natural gas improvements and connection permits</del></li> </ul>
California Department of Toxic Substances Control (DTSC)	<ul style="list-style-type: none"> <li>Approval and oversight of the plan</li> </ul>
Bay Area Air Quality Management District (BAAQMD)	<ul style="list-style-type: none"> <li>Permitting of asbestos abatement activities</li> </ul>

Source: LSA Associates, Inc., 2003.

### Figure III-3: Proposed Demolition

8x11

Page 69 is revised as follows:

**(2) Significant Land Use Impacts.** Implementation of the proposed Project would not result in any significant land use ~~related public policy~~ impacts.

Page 92, Figure IV.D-3, has been revised as shown on the following page.

Page 108 is revised as follows:

**(2) Mode Split.** The modal split for trips generated by the proposed Project was developed based on information from the ACCMA model, updated to reflect the cumulative land use forecasts of the City of Oakland. Approximately 83 percent of all trips would be vehicular trips. BART and AC Transit are expected to serve 62 and 38 percent of the transit trips, respectively. The modal split predicted by the ACCMA model (all references to the Alameda County Congestion Management Agency (ACCMA) model in this document refer to the model, as updated to reflect the cumulative land use forecasts of the City of Oakland) is likely conservative relative to the number of vehicle trips to be generated by the Project. Due to the location and type of Project proposed, it is likely that a higher split to transit will occur; however, the conservative prediction of the model, ~~updated to reflect the cumulative land use forecasts of the City of Oakland~~ is used in the analysis.

Page 109 is revised as follows:

**(4) Trip Distribution.** Vehicle trips forecast to be generated by the proposed Uptown Project were assigned to the surrounding transportation network based on a distribution pattern developed specifically for this study. The pattern is based on information from the ACCMA Model updated to reflect the cumulative land use forecasts of the City of Oakland. Figure IV.D-8 illustrates the Project's anticipated trip distribution pattern.

Page 112, Table 18 footnotes, are revised as follows:

<sup>a</sup>The ITE "Apartment" land use category 220 was used to complete the trip generation forecast for the "student and faculty housing" use.

<sup>b</sup>Transit trips are estimated to be 16 percent of all non-student residential trips generated by the proposed Project and 25 percent of the student trips. BART and AC transit are estimated to serve 62 and 38 percent of Project transit trips, respectively, based on the ACCMA's model, updated to reflect the cumulative land use forecasts of the City of Oakland.

<sup>c</sup> 15 percent of the retail trips are assumed to be internal linked trips.

Page 116, Table 20, Note 1, is revised as follows:

Note: 1. Traffic volumes in the Year 2010 No Project scenario are based on the ACCMA's model, updated to reflect the cumulative land use forecasts of the City of Oakland.



Figure IV.D-3: Existing Transit Network

8 x 11 B&W

Page 118 is revised as follows:

**(2) Year 2010 Traffic Operations.** Based on the Alameda County Congestion Management Agency's (ACCMA) Countywide Transportation Demand Model's forecasts, updated to reflect the cumulative land use forecasts of the City of Oakland, increases in traffic levels at each study intersection were estimated. Figures 5a and 5b in Appendix E illustrate the Year 2010 Baseline traffic volumes without the proposed Project. The Year 2010 Baseline traffic volumes were developed based on growth factors developed from the ACCMA model data, updated to reflect the cumulative land use forecasts of the City of Oakland, and reflect the increase in traffic from all planned development that would impact the study area. Figures 6a and 6b in Appendix E present the AM and PM peak hour Project traffic volumes at the 40 study intersections. The Project traffic volumes were developed by assigning the peak hour Project traffic presented in Table IV.D-18 to the study intersections based on the Project traffic distribution pattern illustrated in Figure IV.D-8. Figures 6a and 6b in Appendix E illustrate the Year 2010 Baseline plus Project traffic volumes.

Page 121, Table 23, Note 1, is revised as follows:

Note: 1. Traffic volumes in the Year 2010 No Project scenario are based on the ACCMA's model, updated to reflect the cumulative land use forecasts of the City of Oakland.

Page 123 is revised as follows:

Mitigation Measure TRANS-1: Optimization of the signal timing at the intersection of San Pablo and Thomas L. Berkley Way (20<sup>th</sup> Street) would improve function to LOS D in the PM peak hour. This intersection functions as an integrated signal system with other intersections in the downtown area. To mitigate the Project's impact at this location and others, the City shall prepare a signal optimization and coordination plan for the area bounded by San Pablo Avenue, Grand Avenue, Telegraph Avenue, and 17<sup>th</sup> Street prior to Project occupancy. The plan shall address the timing and equipment requirements, as necessary for all of the signalized intersections located within this area. The Project sponsor shall fund its fair share cost of the preparation of this plan and the implementation of the signal timing program. Implementation of the signal optimization program may also involve the purchase and installation of interconnection hardware (i.e. modems, microwave antennas, etc). The City of Oakland will consult with AC Transit during preparation of the plan.

Given that the Project sponsor is responsible for only a portion of this mitigation measure, implementation of this set of improvements will be funded fully by one or a combination of the following means:

1. The Project sponsor shall fully fund the costs of the signalization improvements and shall be reimbursed through other fair-share contributions as future projects ~~occur~~ that exceed ~~fall within~~ the City's thresholds of significance occur.

2. The City, at ~~its~~ ~~their~~ sole discretion, shall establish a Traffic Improvement Program and concurrent Traffic Impact Fee Ordinance to fund the mitigation measure.
3. The Redevelopment Agency, at ~~its~~ ~~their~~ sole discretion, shall contribute funds to the costs of implementation. (LTS)

Page 125 is revised as follows:

**(3) Year 2025 Traffic Operations.** Traffic increases for each study intersection were estimated based on the Alameda County Congestion Management Agency's (ACCMA) Countywide Transportation Demand Model, updated to reflect the cumulative land use forecasts of the City of Oakland. The "Year 2025 No Project" traffic volumes are shown in Figures 7a and 7b in Appendix E. The "Year 2025 With Project Traffic" volumes are illustrated in Figures 8a and 8b in Appendix E. This cumulative scenario includes all development contemplated in the study area.

Page 128, Table 27, Note 1, is revised as follows:

Note: 1. Traffic volumes in the Year 2010 No Project scenario are based on the ACCMA's model, updated to reflect the cumulative land use forecasts of the City of Oakland.

Page 133 is revised as follows:

Mitigation Measure TRANS-10: The Project shall provide for the following two improvements.

- Optimize the signal timing at the intersection of Telegraph and 19th Street. Since this intersection also functions as part of an integrated signal system in downtown Oakland, Mitigation Measure TRANS-1~~B~~ shall also be implemented.
- Restripe the westbound 19th Street approach to provide two exclusive through lanes and an exclusive right turn lane.

Page 159 of the Draft EIR is revised as follows:

Mitigation Measure AIR-2: To the extent permitted by law, the Uptown Project shall be required to implement Transportation Control Measures (TCMs) as recommended by the BAAQMD. ~~However, the City of Oakland will implement as feasible on the basis that this Project is an infill mixed used development project that in and of itself supports many Smart Growth Principals.~~ Measures that the City ~~may~~ shall require the Project to implement, or that are already proposed as part of the Project, include the following:

- *Transit Measures:* (i) Construct transit facilities such as bus turnouts/bus bulbs, benches, shelters, ~~ete.~~ and other needed facilities with the review and comment of AC Transit. (Effectiveness 0.5 percent - 2 percent of all trips, BAAQMD *CEQA Guidelines*); (ii) Design and locate buildings to facilitate transit access (e.g., locate building entrances near

transit stops, eliminate building setbacks, etc.) (Effectiveness 0.1 percent - 0.5 percent of all trips, BAAQMD *CEQA Guidelines*).

Page 193 is revised as follows:

The East Bayshore Recycled Water Project, which would provide up to 2.3 mgd of recycled water to residents in Alameda, Albany, Berkeley, Emeryville, and Oakland, is currently in the planning stage. The Project would involve the construction of new treatment and disinfection facilities at the EBMUD Main Wastewater Treatment Plant. The service area of the East Bayshore Recycled Water Project, which is anticipated to be completed prior to 2010, would include the Project site and its surroundings. In January 2002, the City adopted a water reuse ~~dual plumbing~~ ordinance, which requires new development to use recycled water provided by EBMUD, and to install dual plumbing systems if the use of recycled water is financially and technically feasible.

Page of 194 is revised as follows:

... mgd by 2020.<sup>1</sup> ~~As of 2001, EBMUD's water supply was insufficient to meet customer needs in multiple year droughts, even taking into account the implementation of water conservation and recycling programs.<sup>2</sup>~~ In 1993 EBMUD adopted a long-term Water Supply Management Program (WSMP) that serves as a planning guide to the provision of a reliable high-quality water supply to the EBMUD service area through the year 2020. The WSMP identified that, during severe multi-year droughts, EBMUD would be unable to meet its customers' needs for water with its existing source supply, the Mokelumne River, without imposing extreme rationing measures. The 1993 WSMP resulted in two principal options for meeting EBMUD's projection for a supplemental water supply: additional surface or underground storage and additional surface water. Development of additional surface water for EBMUD use may be possible by either enlarging the existing storage at Pardee Reservoir and/or by utilizing EBMUD's Sacramento River contract entitlement. Water from the Sacramento River contract entitlement is anticipated to be available to EBMUD by 2007.

Page 194 is revised as follows:

~~The Project site is served by 8-inch water lines along San Pablo Avenue and Telegraph Avenue.~~ The Project site is served by pipelines in the existing streets that range in size from 4 to 12 inches. These lines, and associated minor water line connections, are anticipated to have an available capacity of over 5,000 gallons per minute (gpm). The City Fire Department maintains minimum flow standards for pipelines serving residential and commercial uses. Prior to the construction of development projects in the City, project applicants are required to verify the capacity of water pipelines that would serve the Project to ensure they meet the Fire Department's minimum fire flow requirements. The minimum flow standard for lines serving residential uses is 2,500 gpm; the minimum flow standard for lines serving commercial uses is 4,500 gpm.<sup>3</sup>

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<sup>1</sup> East Bay Municipal Utility District, 2001. op. cit.

<sup>2</sup> ~~Ibid.~~

<sup>3</sup> ~~Khalili, Amin, 2003. Korve Engineering. Personal communication with LSA Associates, Inc. July 24.~~

Page 198 is revised as follows:

**(1) Water.** The proposed Project would require water for a variety of uses, including household uses, commercial uses, and irrigation of the proposed 25,000 square-foot park. Based upon anticipated uses within the Project site, implementation of the proposed Project would result in an average daily demand for water of 329,000 gpd (120,085,000 gallons per year) and a peak demand of 366,000 gpd.<sup>4</sup> ~~The anticipated daily water demand that would result from implementation of the proposed Project represents approximately 0.2 percent of average daily water demand within the EBMUD service area.~~ The proposed Project would be outfitted with water-conserving fixtures, as required by the Uniform Building Code, and would incorporate dual plumbing systems, to take advantage of available recycled water supplies. The City's water reuse ordinance requires that the Project sponsor install dual plumbing systems within the Project site for the appropriate use of recycled water from EBMUD's East Bayshore Recycled Water Project, as EBMUD plans to supply recycled water to the Project site within the next 10 years for landscape irrigation. Private, water-consuming lawns would not be developed as part of the proposed Project. Therefore, the proposed Project, which represents an efficient use of water, ~~would not~~ is not anticipated to require the construction of new water supply facilities. EBMUD representatives have given a preliminary indication that they can serve this Project's water demand, ~~and the EBMUD Board will confirm that determination by the end of September 2003.~~ Overall water requirements are subject to negotiations with the Fire Department. EBMUD will make a determination as to the availability of water supplies and the need for system improvements until after the final water demands have been established.

Page 198 is revised as follows:

~~The average daily water demand associated with the proposed Project would be approximately 228 gallons per minute, or approximately 4 percent of available water line capacity.<sup>5</sup> Sufficient capacity exists to accommodate this increased demand, although select lines may need to be improved depending upon their age and condition. On-site line improvements would be made during as part of the Project construction period.~~ Construction of public improvements for the Project and are not anticipated to result in significant environmental impacts that are different or more severe than impacts that would result from construction of other components of the proposed Project. As noted in the EBMUD letter dated March 28, 2003 (in response to the NOP for the proposed Project), main extensions (including pipeline replacements) and/or pipeline improvements may be required depending on metering and flow requirements.

Page 198 is revised as follows:

Requirements for minimum water flow (for the purpose of fighting fires) at Project sites in the City are based on a review of hydrant locations, type of construction and access from public streets, along with other factors such as other life safety components in the building.

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<sup>4</sup> Khalili, Amin, 2003. Korve Engineering. Personal communication with LSA Associates, Inc. July 24.

<sup>5</sup> ~~Ibid.~~

These requirements are subject to negotiations with the Oakland Fire Department and will be established when Project details have been finalized. Typically, fire flow requirements are 2,500 gpm for residential uses, and 3,500 gpm for commercial uses. As noted in subsection a(3), Distribution Pipelines, water lines that serve the Project site are anticipated to have an available capacity of over 5,000 gpm. Based on the anticipated capacity of water lines serving the Project site, and ~~correspondence~~ communication with EBMUD, it is ~~expected~~ anticipated that ~~required minimum~~ water flow would be available ~~within~~ at the Project site without a major upgrade of water lines.<sup>6</sup> As previously stated, the flow requirements are subject to negotiations with the Fire Department. EBMUD will make a determination of the availability of these flows following the determination of the required flows.

Page 198 is revised as follows:

**(2) Wastewater.** Implementation of the proposed Project would result in the generation of approximately 280,000 gpd of wastewater.<sup>7</sup> ~~Wastewater generated by the proposed Project represents less than 0.2 percent of the MWWTP's secondary treatment capacity. This wastewater would be accommodated by the MWWTP, which is currently operating at 46 percent of its secondary treatment capacity. Therefore, wastewater generated by the proposed Project would be subject to both primary and secondary treatment and would not violate the wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board. The wastewater lines that serve the Project site have a capacity of 1.35 mgd based on average existing wastewater flow (6,970 gpd), and could accommodate the increase in flow that would result from the proposed Project.<sup>8</sup> The City of Oakland Public Works Department has confirmed that adequate hydraulic capacity exists in the new facilities that would be constructed as part of the Project and EBMUD's sanitary sewer system downstream from the Project site (sub-basin) to accommodate wet-weather flows resulting from implementation of the proposed Project. The Department of Public Works has also indicated that the wet weather flows associated with the improvements are within the sub-basin allocation for delivery to EBMUD. In addition, sanitary sewers that would be developed as part of the proposed Project would be adequately sized to accommodate wet weather flows. Therefore, adequate capacity exists to convey and treat wastewater that would be generated as part of the proposed Project. ~~Public Works Agency staff have indicated that as part of the final public improvement plans for the Project, the conveyance system will be evaluated to confirm what repairs, if any, will be incorporated into the final public improvement plans and specifications. Therefore, and~~ implementation of the proposed Project would not require the construction of new wastewater treatment or transport facilities.~~

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<sup>6</sup> Toothman, Robert, 2003. Korve Engineering. Personal communication with LSA Associates, Inc. September 2.; EBMUD, 2003. Personal communication with Brandon Whitehurst, Korve Engineering.

<sup>7</sup> Ibid.

<sup>8</sup> Ibid.

Page 213 is revised as shown below:

- *19<sup>th</sup> and San Pablo Commercial District (ASI)*

The 19<sup>th</sup> and San Pablo Commercial District is a Victorian/late 19<sup>th</sup>, early 20<sup>th</sup> century commercial district consisting of 12 buildings on all or part of twelve blocks in the Central Oakland neighborhood. Eight of the 12 buildings are contributors to the district, including the buildings located at 630-42 20<sup>th</sup> Street; 1901-15 San Pablo Avenue; 1917-23 San Pablo Avenue; 1939-63 San Pablo Avenue; 1958-60 San Pablo Avenue; 1966-68 San Pablo Avenue; 1972 San Pablo Avenue; and 2000-8 San Pablo Avenue. Most of the district lies northwest and outside of the Project area. It includes early 20<sup>th</sup> century commercial, Italianate commercial, and Beaux Arts-derivative buildings. The dates of contributing buildings range from the 1870s to the 1940s. Currently, the surrounding areas consist of commercial, residential, and transportation uses. Three of the four buildings identified as PDHPs within the Project area (1958-60 San Pablo Avenue, 1966-68 San Pablo Avenue, and 1972 San Pablo Avenue) are contributors to this district. The 19<sup>th</sup> and San Pablo Commercial District is listed as an ASI by the OCHS.

Page 220 is revised as shown below:

**Impact HIST-2: Ground disturbing activities for the construction of subterranean parking structures, building foundations, and underground sewer and utility facilities could adversely impact cultural resources. (S)**

~~Native Americans are known to have occupied and used the Project area vicinity, and in the historical American period residential and commercial use of all portions of the Project area was intensive and varied. These activities may have resulted in unidentified archaeological deposits that may qualify as historical or unique archaeological resources under CEQA. Project related ground disturbing activities may potentially disturb these deposits, which may result in a significant adverse effect to historical or archaeological resources under CEQA. Mitigation measures can reduce these effects to less than significant levels. Native~~  
Native Americans are known to have occupied areas in the vicinity of the Project site. In the historical American period, residential and commercial use of all portions of the Project site was intensive and varied. A historical Chinese community has been documented on the east side of San Pablo Avenue, northeast of the intersection of 20<sup>th</sup> and San Pablo Avenues, and east of San Pablo Avenue between 19<sup>th</sup> and 20<sup>th</sup> Avenues. These areas of the documented Chinese community are within or near the Project site. There is a high potential for Project ground-disturbing activities to encounter archaeological deposits associated with the remains of the Chinese community. These deposits could be significant for their association with early Chinese-American history in Oakland and other urban West Coast settings. These deposits, if intact, may contain information about the economic, social, and religious lifeways of a Chinese-American community in an era in which the Chinese in California were subjected to de facto and institutional displacement, discrimination, and oppression. These conditions often resulted in only minimal documentation of lifeways, which increases the information value of archaeological deposits.

If encountered during ground disturbing activities, these deposits may qualify as historic or unique archaeological resources pursuant to CEQA Guidelines section 15064.5 and CEQA

section 21083.2, respectively. Disturbance of historic or unique archaeological resources could be considered a significant impact. The following two-part mitigation measure would reduce these potential impacts to less-than-significant levels. The purpose of this expanded mitigation measure is to: (1) identify historic or unique archaeological resources prior to the start of ground-disturbing Project activities; and (2) assess the likelihood that Project activities could adversely affect potentially significant deposits, and take the steps necessary to protect and treat the resources so the impact is decreased to a less-than-significant level. Implementation of this mitigation strategy will also help avoid unnecessary delays in site preparation and construction.

~~Mitigation Measure HIST 2: A qualified archaeologist<sup>9</sup> shall monitor all ground-disturbing activities in the Project area until, in the archaeologist's opinion, a depth has been reached at which potentially significant archaeological deposits are unlikely to occur.~~

~~Should an archaeological deposit be encountered by Project activities, the monitor shall be empowered to halt construction in the vicinity of the find. Construction activities shall be redirected and a qualified archaeologist shall: 1) evaluate the archaeological deposit to determine if it meets the CEQA definition of a historical or archaeological resource; and 2) make recommendations about the treatment of the deposit, as warranted. If the deposit does not meet the CEQA definition of a historical or archaeological resource, then no further study or protection of the deposit is necessary. If the deposit does meet the CEQA definition of a historical or archaeological resource, then it shall be avoided by Project activities. If avoidance is not feasible, then effects to the deposit shall be mitigated through a data recovery strategy developed by the evaluating archaeologist. Mitigation of impacts to significant archaeological deposits through data recovery will recover scientifically valuable information. This mitigation may include, but is not limited to, a thorough recording of the resource on DPR Form 523 records, or archaeological excavation. If archaeological excavation is the only feasible method of data recovery, then such excavation shall conform to the provisions of CEQA Guidelines §15126.4(b)(3)(C).~~

Mitigation Measure HIST-2a: A pre-construction archaeological testing program shall be implemented to help identify whether historic or unique archaeological resources exist within the Project site. Examples of potential historic or unique archaeological resources that could be identified within the Project site include: back-filled wells; basements of buildings that pre-date Euro-American buildings that were constructed on the Project site; and backfilled privies. For these resources to be considered significant pursuant to CEQA, they would have to have physical integrity *and* meet at least one of the criteria listed in *CEQA Guidelines* section 15064.5(a)(3) (for historic resources) and/or CEQA section 21083.2(g) (for unique archaeological resources). These criteria include: association with events that have made a significant contribution to the broad patterns of California history and cultural heritage; association with the lives or persons important in our past; embodiment of the distinctive characteristics of a type, period,

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<sup>9</sup> "Qualified" is defined as meeting the professional standards established by the Secretary of the Interior. These standards can be found at: <http://www2.cr.nps.gov/laws/ProfQual83.htm>.



region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; yield, or may likely yield, information important in prehistory or history; contains information needed to answer important scientific research questions and be subject to a demonstrable public interest in that information; have a special and particular quality such as being the oldest of its type or the best available example of its type; or be directly associated with a scientifically recognized important prehistoric or historic event or person.

The testing program, in conjunction with a sensitivity study,<sup>10</sup> shall use a combination of subsurface investigation methods (including backhoe trenching, augering, and archaeological excavation units, as appropriate). The purpose of the testing program is to: (1) identify the presence and location of potentially-significant archaeological deposits; (2) determine if such deposits meet the definition of a historical resource or unique archaeological resource under section 21083.2(g) of the CEQA statutes; (3) guide additional archaeological work, if warranted, to recover the information potential of such deposits; and (4) refine the archaeological monitoring plan.

If historic or unique archaeological resources associated with the Chinese community are identified within the project site and are further determined to be unique, the City shall consult with representatives of an established local Chinese-American organization(s) regarding the potential use of the archaeological findings for interpretive purposes.

Mitigation Measure HIST-2b: Archaeological monitoring of ground-disturbing construction in the Project area shall be conducted, as appropriate and if necessary, based on the results of the pre-construction testing program and the potential for encountering unidentified archaeological deposits. Upon completion of the pre-construction testing program specified in Mitigation Measure HIST-2a, the extent of archaeological monitoring during Project construction will be assessed, and the scope and frequency of the monitoring required by this mitigation measure shall be based on the findings of this assessment. Monitoring shall be conducted by a cultural resource professional approved by the City who meets the Secretary of the Interior's Professional Qualifications Standards for Prehistoric and Historical Archaeology.

Should an archaeological deposit be encountered during Project activities, the City in consultation with the monitor shall halt construction in the vicinity of the find. Construction activities shall be redirected and a qualified archaeologist in consultation with the City shall: (1) evaluate the archaeological deposit to determine if it has the potential to meet the CEQA definition of a historical or unique archaeological resource;

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<sup>10</sup> A cultural resources sensitivity study is done to assess the possibility of cultural resources at a specific location. The sensitivity study typically entails a review of: (1) the locations of known cultural resources in the general vicinity, (2) the records documenting the resources, (3) the nature of those resources, (4) the environmental setting of the location being analyzed, and (5) the historical documentation of the location being analyzed. Based on this information an assessment is made as to whether there is a low, moderate, or high probability of a cultural resource at the specific location in question. For example, if most of the prehistoric sites in an area are on level land, adjacent to the mouth of a creek where it enters a marsh, and the location being analyzed has no water nearby and is on very steep slope, there is a low probability of a prehistoric archaeological site. Or, if historical documents indicate that there have been a variety of buildings and land uses at the location being analyzed, there is a high probability of historical archaeological sites at the location.

and (2) make recommendations about the treatment of the deposit, as warranted. If the deposit does not meet the CEQA definition of a historical or unique archaeological resource, then no further study or protection of the deposit is necessary. If the deposit does meet the CEQA definition of a historical or unique archaeological resource, then it shall be avoided to the extent feasible by Project activities. If avoidance is not feasible, then adverse effects to the deposit shall be mitigated as specified in CEQA section 21083.2. This mitigation may include, but is not limited to, a thorough recording of the resource on DPR Form 523 records, or archaeological data recovery excavation. If data recovery excavation is warranted, CEQA Guidelines section 15126.4(b)(3)(C), which requires a data recovery plan prior to data recovery excavation, shall be followed. If the significant identified resources are unique archaeological resources, mitigation of these resources shall be subject to the limitations on mitigation measures for unique archaeological resources identified in CEQA sections 21083.2(c) through 21083.2(f).

Upon completion of such archaeological monitoring, evaluation, or data recovery mitigation, the archaeologist shall prepare a report documenting the methods, results, and recommendations of the investigation, and submit this report to the NWIC. Public displays of the findings of archaeological recovery excavation(s) of historical or unique resources shall be prepared. As appropriate, brochures, pamphlets, or other media, shall be prepared for distribution to schools, museums, libraries, and – in the case of Chinese-American archaeological deposits – Chinese-American organizations. (LTS)

Page 223 is revised as follows:

Mitigation Measure HIST-4a (Variant 1 and 2): The following measures shall be implemented to preserve information about the resource for further study:

- Record the Great Western Power Company Building in accordance with the procedures of the Historical American Buildings Survey (HABS) through measured drawings, written histories, and large-format photographs;
- Prepare a history of the Great Western Power Company Building that incorporates oral history, documentary research, and architectural information;
- Prepare a brochure, regarding the building's historical association with one of three major early 20th century northern California power companies, to be made available at local libraries and museums;
- Incorporate interpretive elements, such as signs and placards, into public areas and street frontages proposed as part of the Project.
- If full demolition of the building occurs, salvage architectural elements from the building, including hardware, doors, paneling, fixtures, and equipment, and incorporate these elements into new construction; and
- Curate all materials, notes, and reports at the OHR, and submit copies to the NWIC.

Even with extensive documentation, however, the demolition of the building or portions of the building would result in the loss of a historic resource that is associated with significant historical events and is an example of outstanding design and function.

Therefore, the demolition or partial demolition of the building would remain a significant and unavoidable impact. (SU)

Page 225 is revised to delete the following sentence which was included inadvertently:

~~However, if it is not feasible to minimize material impairment of the resource, then the impact would remain significant and unavoidable. (SU)~~

Pages 226 and 227 of the Draft EIR are revised as shown below:

**Impacts to Historic Districts.** ~~The~~ Because the 19<sup>th</sup> and San Pablo Commercial District is not currently designated as a Preservation District, it is currently not considered a historical resource under CEQA. For the purposes of CEQA ~~Thus, according to the significance criteria utilized by the City of Oakland, the proposed Project will~~ not ~~would~~ not cause a significant adverse impact to the 19<sup>th</sup> and San Pablo Commercial District.

~~However, for the purposes of CEQA, to account for the possibility of this District being elevated to Preservation District status and to provide the most an extra conservative analysis, the following impact assessment treats the 19<sup>th</sup> and San Pablo Commercial District could be impacted by the proposed Project if: 1) the district is as if it had been elevated to Preservation District status (a type of Designated Historic Property); and 2) the four PDHPs identified in Impact HIST-5 are demolished. However, this impact would be less than significant because the remaining majority of contributing properties would still retain enough of the district's character-defining elements to convey its historical significance. Buildings remaining after Project implementation will include the Hotel Arcade, the Hanifin Block, and the Dalziel Block. These remaining buildings include all of the district's primary contributors (the Hotel Royal, Hotel Arcade, and the Hanifin Block), which will continue to retain the district's major character-defining elements that reflect turn-of-the-century commercial development in Oakland. These buildings represent styles that include Italianate, Beaux Arts-derived, and Classical Revival. They maintain the grandness of scale and ornamentation that characterize what the OCHS described as the "visually distinctive/turn-of-the-century commercial district." The retention of these distinctive buildings allows the district to continue to convey the historical significance of late 19<sup>th</sup>, early 20<sup>th</sup> century commerce in Oakland., which would qualify contributing or potentially-contributing properties within such a district as historical resources under CEQA.~~<sup>11</sup>

**Impact HIST-7: Project demolition and construction could adversely impact the setting of the 19<sup>th</sup> and San Pablo Commercial District. (SLTS)**<sup>12</sup>

<sup>11</sup> Elevation of the 19<sup>th</sup> and San Pablo Commercial District to Preservation District status is a discretionary measure that could only occur after a number of actions are complete, including nomination of the District by a qualified individual or land owner, as well as approval by the Planning Commission and City Council. Even so, attainment of Preservation District status would not prohibit the demolition of contributing structures within the District.

<sup>12</sup> This change in the designated significance of the impact does not affect the findings or analysis contained in the Draft EIR. This revision was made to correct a text error in the Draft EIR. The discussion following this designation in the Draft EIR clearly indicated that Impact HIST-7 was less-than-significant.

If For the purposes of CEQA, the 19<sup>th</sup> and San Pablo Commercial District receives a Preservation District designation, the Project may result in a significant impact to the district's setting. However, OCHS documentation indicates that the district's integrity of setting has been diminished by surrounding uses that "differ in use and visual coherence" from the district's contributing buildings. Therefore, the Project's effects on the setting of the 19th and San Pablo Commercial District would not significantly impair the district's integrity could be adversely impacted by the proposed Project if: 1) the district is elevated to Preservation District status (a type of Designated Historic Property); and 2) the three contributing PDHPs located at 1958-60 San Pablo Avenue, 1966-68 San Pablo Avenue, and 1972 San Pablo Avenue as identified in Impact HIST-6 are demolished. However, this project-level impact would not be considered significant as it would only result in the demolition of three of the District's eight contributing buildings and the remaining contributing buildings would still retain enough of the District's character-defining elements to convey its historical significance. Buildings remaining after Project implementation would include the Hotel Arcade, the Hanifin Block, and the Dalziel Block. These remaining buildings, which are located on blocks outside of the Project area, include all of the District's primary contributors (the Hotel Royal, Hotel Arcade, and the Hanifin Block). These primary contributors will continue to retain the District's major character-defining elements that reflect turn-of-the-century commercial development in Oakland. These buildings represent styles that include Italianate, Beaux Arts-derived, and Classical Revival. They maintain the grandness of scale and ornamentation that characterize what the OCHS described as the "visually distinctive/turn-of-the-century commercial district." The three contributing PDHPs within the project site are less character-defining than the other contributing buildings within the District. The retention of the remaining distinctive buildings would allow the District to continue to convey the historical significance of late 19<sup>th</sup>, early 20<sup>th</sup> century commerce in Oakland. Thus the project's impact to this District would be considered less-than-significant and not require any mitigation.

Mitigation Measure HIST-7: No mitigation measure is necessary to address this ~~the~~ less-than-significant impact. (LTS)

**Impact HIST-8: Project demolition and construction could result in a significant cumulative impact on the 19<sup>th</sup> and San Pablo Commercial District. (S)**

The demolition of the ~~four PDHPs~~ three PDHPs located at 1958-60 San Pablo Avenue, 1966-68 San Pablo Avenue, and 1972 San Pablo Avenue identified in Impact HIST-~~5~~ 6 may result in a significant cumulative impact when considered with ~~other projects that causing related impacts~~ the Thomas L. Berkley Square project. The Thomas L. Berkley Square Project, located across Thomas L. Berkley Way (20<sup>th</sup> Street) from Project Block #1, proposes the demolition of two contributing properties of the 19<sup>th</sup> and San Pablo Commercial District (the Hotel Royal Building and the California Peanut Company Building). The impact of the Uptown Mixed-Use Project, while ~~incremental~~ less than significant when considered alone, will contribute to a cumulatively significant impact when considered with the impacts of the Thomas L. Berkley Square Project. If both projects are implemented as proposed, ~~six~~ five of ~~nine~~ eight contributing buildings (63%) of the 19<sup>th</sup> and San Pablo Commercial District will be demolished. This would result in a significant, ~~unavoidable~~ cumulative impact to the 19<sup>th</sup> and San Pablo Commercial.

Implementation of the following mitigation measure, which involves preserving the PDHPs that contribute to the 19<sup>th</sup> and San Pablo Commercial District, if it determined to be feasible would avoid the Project's cumulative adverse impact to the District.

Mitigation Measure HIST-8a: If feasible, the three PDHPs that contribute to the 19<sup>th</sup> and San Pablo Commercial District (located at 1958-60 San Pablo Avenue, 1966-68 San Pablo Avenue, and 1972 San Pablo Avenue) shall be preserved in their existing condition or rehabilitated and incorporated into the proposed Project. Any modifications to the exterior of the buildings that may be proposed as part of their rehabilitation shall be developed in consultation with the Planning Department and a qualified historic preservation architect to determine an appropriate treatment strategy that preserves the important historic qualities of the structures. (LTS)

The implementation of Mitigation Measure HIST-8a would reduce the cumulative loss of contributing district buildings from 5 out of 8 (63%), to 2 out of 8 (25%). The Project sponsor and the City are in the process of determining whether or not it is feasible to preserve these buildings. If the City makes a determination that it is not feasible to preserve these buildings, the buildings may be demolished as part of the proposed project and a significant unavoidable impact would result.

Mitigation Measure HIST-8b: If the City determines that preservation of the three PDHPs that contribute to the 19<sup>th</sup> and San Pablo Commercial District (located at 1958-60 San Pablo Avenue, 1966-68 San Pablo Avenue, and 1972 San Pablo Avenue) is not feasible, the City shall inform the applicant for the Thomas L. Berkley Square Project of the potential cumulative impact prior to the implementation of the Uptown Mixed-Use Project. The City shall consult with both project applicants to establish a fair division of responsibility to fund mitigation measures to preserve information about the 19<sup>th</sup> and San Pablo Commercial District for future study. These mitigation measures shall include the following:

- Record the 19<sup>th</sup> and San Pablo Commercial District in accordance with the procedures of HABS through measured drawings, written histories, and large-format photographs;
- Prepare a history of the 19th and San Pablo Commercial District that incorporates oral history, documentary research, and architectural information; this history could utilize non-written media and production techniques, including video photography;
- Prepare a brochure, regarding the district's historical association with turn-of-the-century Oakland commerce, to be made available at local libraries and museums;
- Salvage architectural elements from the buildings proposed for demolition, including hardware, doors, paneling, fixtures, and equipment, and incorporate these elements into new construction; and
- Curate all materials, notes, and reports at the OHR, and submit copies to the NWIC.

Even with extensive documentation, however, a cumulative impact will result from the demolition of ~~66~~ 63 percent of the 19<sup>th</sup> and San Pablo Commercial District's contributing buildings. This loss of contributing buildings will materially affect the district's ability to convey its historical significance, which will result in a significant, unavoidable cumulative impact. (SU)

Page 227 is revised as follows:

Mitigation Measure HIST-9: No mitigation measure is necessary to address this ~~the~~ less-than-significant impact. (LTS)

Page 228 is revised as follows:

Mitigation Measure HIST-10: No mitigation measure is necessary to address this ~~the~~ less-than-significant impact. (LTS)



## **VI. MITIGATION MONITORING AND REPORTING PROGRAM**

This Mitigation Monitoring and Reporting Program (MMRP) has been formulated based upon the findings of the Environmental Impact Report (EIR) prepared for the Uptown Mixed Use Project (Project). The MMRP, which is found in Table V-1 of this section, lists mitigation measures recommended in the EIR for the proposed Project and identifies mitigation monitoring requirements.

This MMRP has been prepared to comply with the requirements of State law (Public Resources Code Section 21081.6). State law requires the adoption of an MMRP when mitigation measures are required to avoid significant impacts. The MMRP is intended to ensure compliance during implementation of the project.

The MMRP is organized in a matrix format. The first column identifies the mitigation measure. The second column, entitled "Implementation Procedure," refers to the procedures associated with implementation of the mitigation measure. The third column, entitled "Monitoring Responsibility," refers to the agency responsible for ensuring that the mitigation measure is implemented. The fourth column, entitled "Monitoring and Reporting Action," refers to the way in which the responsible agency will monitor implementation of the mitigation measure. The fifth column, entitled "Monitoring Schedule," refers to when monitoring will occur. The sixth column, "Non Compliance Sanction," refers to the agency action undertaken if mitigation is not implemented. The last column will be used by the lead agency to document the person who verified the implementation of the mitigation measure and the date on which this verification occurred.





**Table V-1: Mitigation Monitoring and Reporting Program**

Mitigation Measures	Implementation Procedure	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Non-Compliance Sanction	Verification of Compliance
<b>HYDROLOGY AND WATER QUALITY</b>						
<p><b>HYD-1:</b> The applicant shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) designed to reduce potential impacts to surface water quality through the construction and life of the Project. The SWPPP would act as the overall program document to provide measures to mitigate significant water quality impacts associated with implementation of the Project. The SWPPP shall include specific and detailed Best Management Practices (BMPs) required to mitigate significant construction-related pollutants. These controls shall include practices to minimize the contact of construction materials, equipment, and maintenance supplies (e.g., fuels, lubricants, paints, solvents, adhesives) with storm water. The SWPPP shall specify properly designed centralized storage areas that keep these materials out of the rain.</p> <p>An important component of the storm water quality protection effort will be the education of the site supervisors and workers. To educate on-site personnel and maintain awareness of the importance of storm water quality protection, site supervisors shall conduct regular tailgate meetings to discuss pollution prevention. The frequency of the meetings and required personnel attendance list shall be specified in the SWPPP.</p> <p>The SWPPP shall specify a monitoring program to be implemented by the construction site supervisor, and must include both dry and wet weather inspections. City of Oakland personnel shall conduct regular inspections to ensure compliance with the SWPPP.</p> <p>BMPs to reduce erosion of exposed soil may include, but are not limited to: soil stabilization controls, watering for dust control, perimeter silt fences, placement of hay bales, and sediment basins. The potential for erosion is generally increased when grading occurs during the rainy season, as disturbed soil can be exposed to rainfall and storm runoff. If grading must be conducted during the rainy season, the primary BMPs selected shall focus on erosion control, that is, keeping sediment on the site. End-of-pipe sediment control measures (e.g., basins and traps) shall be used only as secondary measures. Access to and egress from the construction site shall be carefully controlled to minimize off-site tracking of sediment (this BMP is particularly important since much of the earthwork will involve loading trucks for off-site transport of soil excavated for the below-ground parking structures). Vehicle and equipment wash down facilities shall be designed to be accessible and functional both during dry and wet conditions.</p> <p>The SWPPP shall be reviewed for completeness by the City of Oakland, Public Works Agency, Environmental Services Division prior to approval of grading plans.</p>	<p>Applicant shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) which includes specific and detailed Best Management Practices (BMPs). The SWPPP shall specify a monitoring program to be implemented by the construction site supervisor.</p>	<p>City of Oakland, Public Works Agency, Environmental Services Division.</p>	<ol style="list-style-type: none"> <li>1) Review the SWPPP for completeness.</li> <li>2) Conduct regular inspections to ensure compliance with the SWPPP.</li> </ol>	<ol style="list-style-type: none"> <li>1) Prior to the approval of grading plans.</li> <li>2) Regularly throughout the Project construction period (as deemed appropriate by the Public Works Agency).</li> </ol>	<ol style="list-style-type: none"> <li>1) No approval of grading plans.</li> <li>2) City issues corrective action or stop work order if compliance with SWPPP does not occur.</li> </ol>	<p>Verified by:</p> <p>Date:</p>
<p><b>HYD-2:</b> The applicant shall comply with the requirements of the 2003 Alameda County <i>Stormwater Management Plan</i> and/or the Regional Water Quality Control Board (RWQCB) Revised Order 01-024 (NPDES Permit No. CAS029718), as appropriate, based on the timing of construction. As applicable, the applicant shall incorporate measures to mitigate potential degradation of runoff water quality from all portions of the completed development, including roof and sidewalk runoff. The final design team for the Project should include all applicable measures from <i>Start at the Source, Design Guidance Manual for Stormwater Quality Protection</i>, which may include, but not be limited to pervious pavements, hybrid parking lots, vegetated swales, biofilters, roof drainage to landscaped areas, minimization of directly connected impervious surfaces, and infiltration islands.</p> <p>The Project compliance with requirements for post-construction stormwater controls shall be reviewed by the City of Oakland, Public Works Agency, Environmental Services Division prior to approval of grading plans.</p>	<p>Applicant shall comply with the requirements of the 2003 Alameda County <i>Stormwater Management Plan</i> and/or the RWQCB Revised Order 01-024 (NPDES Permit No. CAS029718), as appropriate. This compliance shall include the incorporation of all applicable measures from <i>Start at the Source, Design Guidance Manual for Stormwater Quality Protection</i> designed to improve the quality and reduce the quantity of runoff from the Project site, as detailed in the mitigation measure. The measures shall be detailed in the permitted grading and building plans.</p>	<p>City of Oakland, Public Works Agency, Environmental Services Division.</p>	<p>Review final project plans to ensure compliance with the applicable requirements for post-construction stormwater controls.</p>	<p>Prior to the approval of grading and/or building plans.</p>	<p>No approval of a grading or building permit.</p>	<p>Verified by:</p> <p>Date:</p>

Table V-1 *continued*

Mitigation Measures	Implementation Procedure	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Non-Compliance Sanction	Verification of Compliance
<p><b>HYD-3:</b> The SWPPP shall include requirements for the proper management of dewatering effluent as necessary to mitigate significant impacts to the environment. The Hazards section of this DEIR (Mitigation Measure HAZ-1b) addresses and mitigates potential impacts associated with health and safety impacts to site workers and the public associated with the dewatering effluent.</p> <p>At minimum, all dewatering effluent will be contained prior to discharge to allow the sediment to settle out, and filtered, if necessary, to ensure that only clear water is discharged to the storm or sanitary sewer system. Alternatively, effluent can be hauled off-site by tanker truck for disposal. Based on the historical land uses at the Project site and groundwater sampling of the existing network of monitoring wells, it is possible that groundwater underlying each of the parcels has been impacted by chemical releases. All dewatering effluent will be analyzed by a State-certified laboratory for the suspected pollutants (at minimum, petroleum hydrocarbons, solvents, and metals) prior to discharge. Based on the results of the analytical testing and the concentrations of pollutants identified, if any, the applicant will dispose of the water in one (or more) of the following ways:</p> <p>a) Discharge the water to the storm drain under permit from the RWQCB. It is unlikely that the RWQCB would allow discharge of any untreated dewatering effluent that contained detectable concentrations of chemical pollutants and that for these types of discharges, alternative disposal options may be required;</p> <p>b) Discharge the water to the sanitary sewer system under permit from the East Bay Municipal Utilities District;</p> <p>c) Haul the water to a licensed off-site disposal facility for treatment and disposal under appropriate manifest.</p> <p>The Project proponent shall demonstrate to the City of Oakland, Planning and Development Department that appropriate permits have been acquired prior to discharge of any dewatering effluent.</p>	<p>1) Applicant shall include requirements for the proper management of dewatering effluent in the SWPPP, as specified in the mitigation measure.</p> <p>2) Procure the appropriate permits needed for the discharge of dewatering effluent.</p>	<p>City of Oakland Community and Economic Development Agency, Environmental Services Division.</p>	<p>1) Review the SWPPP to ensure it includes requirements for the proper management of dewatering effluent.</p> <p>2) Verify that the applicant has received the necessary permits for the discharge of dewatering effluent.</p>	<p>1) Prior to the approval of grading permit.</p> <p>2) Prior to the initiation of dewatering within the project site.</p>	<p>1) No approval of grading permit.</p> <p>2) City issues corrective action or stop work order if necessary permits have not been procured.</p>	<p>Verified by:</p> <p>Date:</p>
<b>TRANSPORTATION, CIRCULATION AND PARKING</b>						
<p><b>TRANS-1:</b> Optimization of the signal timing at the intersection of San Pablo and Thomas L. Berkley Way (20<sup>th</sup> Street) would improve function to LOS D in the PM peak hour. This intersection functions as an integrated signal system with other intersections in the downtown area. To mitigate the Project's impact at this location and others, the City shall prepare a signal optimization and coordination plan for the area bounded by San Pablo Avenue, Grand Avenue, Telegraph Avenue, and 17<sup>th</sup> Street prior to Project occupancy. The plan shall address the timing and equipment requirements, as necessary for all of the signalized intersections located within this area. The Project sponsor shall fund its fair share cost of the preparation of this plan and the implementation of the signal timing program. Implementation of the signal optimization program may also involve the purchase and installation of interconnection hardware (i.e. modems, microwave antennas, etc). The City of Oakland will consult with AC Transit during preparation of the plan.</p> <p>Given that the Project sponsor is responsible for only a portion of this mitigation measure, implementation of this set of improvements will be funded fully by one or a combination of the following means:</p> <p>1. The Project sponsor shall fully fund the costs of the signalization improvements and shall be reimbursed through other fair-share contributions as future projects that exceed the City's thresholds of significance occur.</p> <p>2. The City, at its sole discretion, shall establish a Traffic Improvement Program and concurrent Traffic Impact Fee Ordinance to fund the mitigation measure.</p> <p>3. The Redevelopment Agency, at its sole discretion, shall contribute funds to the costs of implementation.</p>	<p>1) City Public Works Agency, Traffic Engineering Division, shall prepare a signal optimization and coordination plan for the area bounded by San Pablo Avenue, Grand Avenue, Telegraph Avenue, and 17<sup>th</sup> Street.</p> <p>2) The project shall fund its fair share cost of the preparation and implementation of the signal optimization and coordination plan.</p> <p>3) City Public Works Agency, Traffic Engineering Division, shall implement the measures of the plan from 2010 to 2025, as necessary, to address cumulative impacts.</p>	<p>1) City of Oakland Community and Economic Development Agency, Planning Division.</p> <p>2) City of Oakland Community and Economic Development Agency, Planning Division.</p> <p>3) City of Oakland Community and Economic Development Agency, Planning Division.</p>	<p>1) Verify that the signal optimization and coordination plan has been prepared and that it meets the standards listed in the mitigation measure.</p> <p>2) Verify that the applicant funds its fair share cost of the preparation and implementation of the signal optimization and coordination plan.</p> <p>3) Ensure plan measures are being implemented.</p>	<p>1) Prior to occupancy of the Project.</p> <p>2) Prior to occupancy of the Project.</p> <p>3) From 2010 to 2025.</p>	<p>No approval of occupancy permit.</p>	<p>Verified by:</p> <p>Date:</p>
<p><b>TRANS-2:</b> Optimization of the signal timing at the intersection of Telegraph and 19th Street would improve the function to LOS C in both the AM or PM peak hours. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level.</p>	<p>Refer to Mitigation Measure TRANS-1.</p>	<p>Refer to Mitigation Measure TRANS-1.</p>	<p>Refer to Mitigation Measure TRANS-1.</p>	<p>Refer to Mitigation Measure TRANS-1.</p>	<p>Refer to Mitigation Measure TRANS-1.</p>	<p>Verified by:</p> <p>Date:</p>

Table V-1 *continued*

Mitigation Measures	Implementation Procedure	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Non-Compliance Sanction	Verification of Compliance
<p><b>TRANS-3:</b> Widen the intersection to add a second exclusive left turn lane in the eastbound direction and an exclusive right turn lane in the westbound direction. The intersection would operate at LOS D in the PM peak hour with these improvements.</p> <p>The intersection of Frontage Road and West Grand Avenue is located on an elevated structure which is within the jurisdiction of Caltrans. The proposed mitigation measures would require the widening of the existing elevated structure and modification of the traffic signal. The second exclusive left turn lane in the eastbound direction and the exclusive right turn lane in the westbound direction should each be 300 feet in length with a 90-foot taper. Widening of the existing structure would require additional support columns and the acquisition of right of way underneath the structure. In addition, the connector from Interstate 880 to Interstate 80 structure exists above this intersection. Columns supporting this elevated connector may have to be relocated to widen the Frontage Road/West Grand Avenue intersection. At this time, the implementation of this mitigation measure would not be economically feasible. Because this intersection is located outside of the City of Oakland's jurisdiction and because it is not economically feasible, it is significant and unavoidable.</p>	<p><i>No monitoring or reporting measures are provided for this mitigation measures since it has been determined to be infeasible at this time.</i></p>					
<p><b>TRANS-4:</b> Optimization of the signal timing at the intersection of San Pablo and 27th Street would improve function to a LOS D in the PM peak hour. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level.</p>	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	<p><i>Verified by:</i></p> <p><i>Date:</i></p>
<p><b>TRANS-5:</b> Optimization of the signal timing at the intersection of San Pablo and West Grand Avenue would improve the function to a LOS E in the PM peak hour. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level.</p>	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	<p><i>Verified by:</i></p> <p><i>Date:</i></p>
<p><b>TRANS-6:</b> Optimization of the signal timing at the intersection of San Pablo and Thomas L. Berkley Way (20<sup>th</sup> Street). By optimizing the signal timing splits, the intersection would improve the function to a LOS D in the PM peak hour. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level.</p>	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	<p><i>Verified by:</i></p> <p><i>Date:</i></p>
<p><b>TRANS-7:</b> Optimization of the signal timing and changing the cycle length to 65 seconds at this intersection would mitigate the delay that would result from the proposed Project. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level.</p>	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	<p><i>Verified by:</i></p> <p><i>Date:</i></p>
<p><b>TRANS-8:</b> Optimization of the signal timing in the AM peak hour and changing the cycle length to 70 seconds at this intersection would mitigate the Project's increase in delay. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level.</p>	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	<p><i>Verified by:</i></p> <p><i>Date:</i></p>
<p><b>TRANS-9:</b> Changing the cycle length to 80 seconds and optimizing signal timing would improve the function of this intersection to LOS C in the PM peak hour. By optimizing the signal timing splits and changing the signal cycle, the Project's increase in delay would be mitigated. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level.</p>	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	<p><i>Verified by:</i></p> <p><i>Date:</i></p>

Table V-1 *continued*

Mitigation Measures	Implementation Procedure	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Non-Compliance Sanction	Verification of Compliance
<p><b>TRANS-10:</b> The Project shall provide for the following two improvements.</p> <ul style="list-style-type: none"> <li>Optimize the signal timing at the intersection of Telegraph and 19th Street. Since this intersection also functions as part of an integrated signal system in downtown Oakland, Mitigation Measure TRANS-1 shall also be implemented.</li> <li>Restripe the westbound 19th Street approach to provide two exclusive through lanes and an exclusive right turn lane.</li> </ul> <p>With these improvements, the intersection would operate at LOS C in the AM peak hour and LOS E in the PM peak hour.</p> <p>The restriping of the westbound 19th Street approach to the intersection to provide two exclusive through lanes and an exclusive right turn lane would require the elimination of six metered parking spaces on the northern side of 19th Street between Telegraph and Broadway. With the existing roadway width available the two through lanes would each be 11 feet wide and the right turn lane would be 10 feet wide, which would satisfy City standards of 10-foot lanes. Metered parking would remain on the southern side of 19th Street.</p>	<ol style="list-style-type: none"> <li>Refer to Mitigation Measure TRANS-1.</li> <li>City Public Works Agency, Traffic Engineering Division shall restripe the westbound 19<sup>th</sup> Street approach to Telegraph Avenue to provide two exclusive through lanes and an exclusive right turn lane.</li> </ol>	<ol style="list-style-type: none"> <li>Refer to Mitigation Measure TRANS-1.</li> <li>City of Oakland Community and Economic Development Agency, Planning Division.</li> </ol>	<ol style="list-style-type: none"> <li>Refer to Mitigation Measure TRANS-1.</li> <li>Verify that the westbound 19<sup>th</sup> Street approach has been restriped.</li> </ol>	<ol style="list-style-type: none"> <li>Refer to Mitigation Measure TRANS-1.</li> <li>Prior to occupancy of the Project.</li> </ol>	<ol style="list-style-type: none"> <li>Refer to Mitigation Measure TRANS-1.</li> <li>Work with the City Public Works Agency to ensure the improvement is implemented.</li> </ol>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>
<p><b>TRANS-11:</b> Widen the eastbound approach to accommodate two left turn lanes, two through lanes, and a right turn lane. Widen the southbound approach would need to accommodate a right turn lane, a left turn lane, and a shared through/right turn lane. In addition, the northbound approach should be converted from a left turn lane, a through lane, and a shared through/right turn lane to a left turn lane, a shared through/right turn lane, and a right turn lane. With the proposed improvements, the intersection would operate at LOS C in the AM peak hour and LOS D in the PM peak hour.</p> <p>The intersection of Frontage Road and West Grand Avenue is located on an elevated structure which is within the jurisdiction of Caltrans. The proposed mitigation measures would require the expansion of the existing elevated structure and modification of the traffic signal. Widening of the existing structure would require additional support columns and the acquisition of right of way underneath the structure. In addition, the connector from Interstate 880 to Interstate 80 structure exists above this intersection. Columns supporting this elevated connector may have to be relocated to pursue the widening of the Frontage Road/West Grand Avenue intersection. The implementation of this mitigation measure would not be economically feasible. Because this intersection is located outside of the City of Oakland's jurisdiction and because it is not economically feasible, it is significant and unavoidable.</p>	Refer to Mitigation Measure TRANS-3.	Refer to Mitigation Measure TRANS-3.	Refer to Mitigation Measure TRANS-3.	Refer to Mitigation Measure TRANS-3.	Refer to Mitigation Measure TRANS-3.	<p><i>Verified by:</i></p> <p><i>Date:</i></p>
<p><b>TRANS-12:</b> Changing the cycle length to 110 seconds, providing protected left turn phases on the eastbound and westbound approaches, and optimizing the signal timing would improve the function of this intersection to a LOS D in the PM peak hour. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level.</p>	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	<p><i>Verified by:</i></p> <p><i>Date:</i></p>
<p><b>TRANS-13:</b> Changing the cycle length to 110 seconds and optimizing the signal timing splits would mitigate the Project's impact. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level.</p>	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	<p><i>Verified by:</i></p> <p><i>Date:</i></p>
<p><b>TRANS-14:</b> Optimization of the intersection's signal timing at this intersection would improve the function of this intersection to operate at LOS D in the PM peak hour. Preparation and implementation of the signal optimization and coordination plan detailed in Mitigation Measure TRANS-1 will ensure that this impact is reduced to a less-than-significant level.</p>	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	Refer to Mitigation Measure TRANS-1.	<p><i>Verified by:</i></p> <p><i>Date:</i></p>

Table V-1 *continued*

Mitigation Measures	Implementation Procedure	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Non-Compliance Sanction	Verification of Compliance
<b>AIR QUALITY</b>						
<p><b>AIR-1:</b> Implementation of the following mitigation measures would reduce this impact to a less-than-significant level.</p> <ul style="list-style-type: none"> <li>The basic and enhanced control measures listed in Table IV.E-9 shall be implemented during construction of the proposed Project.</li> <li>Any temporary haul roads to the soil stockpile area shall be routed away from existing neighboring land uses. Any temporary haul roads shall be surfaced with gravel and regularly watered to control dust or treated with an appropriate dust suppressant.</li> <li>Water sprays shall be utilized to control dust when material is being added or removed from the stockpile. When the stockpile is undisturbed for more than 1 week, the storage pile shall be treated with a dust suppressant or crusting agent to eliminate wind-blown dust generation.</li> <li>All neighboring properties located within 500 feet of property lines shall be provided with the name and phone number of a designated construction dust control coordinator who will respond to complaints within 24 hours by suspending dust-producing activities or providing additional personnel or equipment for dust control as deemed necessary. The phone number of the BAAQMD pollution complaints contact shall also be provided. The dust control coordinator shall be on-call during construction hours. The coordinator shall keep a log of complaints received and remedial actions taken in response. This log shall be made available to City staff upon its request.</li> </ul> <p>The above mitigation measures include all feasible measures for construction emissions identified by the BAAQMD. According to the District's threshold of significance for construction impacts, implementation of the measures would reduce construction impacts of the proposed Project to a less-than-significant level.</p>	Applicant shall implement the construction period air quality control measures described in the mitigation measure.	City of Oakland Community and Economic Development Agency, Building Services Division.	Make regular visits to the Project site to ensure that all dust-control mitigation measures are being implemented, and verify that a designated construction dust control coordinator is on-call during construction periods.	Ongoing throughout the Project construction period.	City issues corrective action or stop work order if construction period dust control measures have not been implemented.	<p>Verified by:</p> <p>Date:</p>
<p><b>AIR-2:</b> To the extent permitted by law, the Uptown Project shall be required to implement Transportation Control Measures (TCMs) as recommended by the BAAQMD. Measures that the City shall require the Project to implement, or that are already proposed as part of the Project, include the following:</p> <ul style="list-style-type: none"> <li><i>Transit Measures:</i> (i) Construct transit facilities such as bus turnouts/bus bulbs, benches, shelters, and other needed facilities subject to the review and comment of AC Transit. (Effectiveness 0.5 percent - 2 percent of all trips, BAAQMD CEQA Guidelines); (ii) Design and locate buildings to facilitate transit access (e.g., locate building entrances near transit stops, eliminate building setbacks, etc.) (Effectiveness 0.1 percent - 0.5 percent of all trips, BAAQMD CEQA Guidelines).</li> <li><i>Services Measures:</i> (i) Provide on-site shops and services for employees, such as cafeteria, bank/ATM, dry cleaners, convenience market, etc. (Effectiveness 0.5 percent - 5 percent of work trips, BAAQMD CEQA Guidelines); (ii) Provide on-site child care, or contribute to off-site childcare within walking distance. (Effectiveness 0.1 percent - 1 percent of work trips, BAAQMD CEQA Guidelines).</li> </ul>	Applicant shall implement appropriate TCMs, based on consultation with the City.	City of Oakland Community and Economic Development Agency, Planning Division.	Ensure that TCMs determined to be necessary by the City are incorporated into the Major Conditional Use Permit for the Project.	Prior to approval of the Major Conditional Use Permit.	No approval of the Major Conditional Use Permit.	<p>Verified by:</p> <p>Date:</p>

Table V-1 *continued*

Mitigation Measures	Implementation Procedure	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Non-Compliance Sanction	Verification of Compliance
<ul style="list-style-type: none"> <li><i>Bicycle and Pedestrian Measures:</i> (i) Provide secure, weather-protected bicycle parking for employees (Effectiveness 0.5 percent - 2 percent of work trips, BAAQMD CEQA Guidelines); (ii) Provide safe, direct access for bicyclists to adjacent bicycle routes (Effectiveness 0.5 percent - 2 percent of work trips, BAAQMD CEQA Guidelines); (iii) Provide showers and lockers for employees bicycling or walking to work (Effectiveness 0.5 percent - 2 percent of work trips, BAAQMD CEQA Guidelines); (iv) Provide secure short-term bicycle parking for retail customers or non-commute trips (Effectiveness 1 percent - 2 percent of non-work trips, BAAQMD CEQA Guidelines); (v) Provide direct, safe, attractive pedestrian access from Planning Area to transit stops and adjacent development (Effectiveness 0.5 percent - 1.5 percent of all trips, BAAQMD CEQA Guidelines).</li> </ul> <p>Implementation of the measures detailed above would help minimize this impact, but not reduce it to a less-than-significant level. Therefore, Impact AIR-2 will remain significant and unavoidable.</p>						
<b>NOISE</b>						
<p><b>NOISE-1a:</b> Standard construction activities shall be limited to between 7:00 a.m. and 7:00 p.m. Monday through Friday. No construction activities shall be allowed on weekends until after the buildings are enclosed without prior authorization of the Building Services and Planning Divisions of the Community and Economic Development Agency.</p>	<p>Construction contractor shall limit construction activities to between 7:00 a.m. and 7:00 p.m. Monday through Friday.</p>	<p>Community and Economic Development Agency, Building Services and Planning Division.</p>	<p>Make regular visits to the Project site to ensure that construction activities are restricted to 7:00 a.m. and 7:00 p.m. Monday through Friday.</p>	<p>Ongoing throughout Project Construction Period.</p>	<p>City issues corrective action or stop work order if construction activities occur outside of the restricted time zone.</p>	<p><i>Verified by:</i>  <i>Date:</i></p>
<p><b>NOISE-1b:</b> To reduce daytime noise impacts due to construction, to the maximum feasible extent, the City shall require the applicant to develop a site-specific noise reduction program, subject to city review and approval, which includes the following measures:</p> <ul style="list-style-type: none"> <li>Signs shall be posted at the construction site that include permitted construction days and hours, a day and evening contact number for the job site, and a day and evening contact number for the City in the event of problems;</li> <li>An on-site complaint and enforcement manager shall be posted to respond to and track complaints;</li> <li>A pre-construction meeting shall be held with the job inspectors and the general contractor/on-site Project manager to confirm that noise mitigation and practices are completed prior to the issuance of a building permit (including construction hours, neighborhood notification, posted signs, etc.);</li> <li>Equipment and trucks used for Project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds, wherever feasible);</li> <li>Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for Project construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed-air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed-air exhaust shall be used; this muffler can lower noise levels where feasible, which could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever feasible; and</li> <li>Stationary noise sources shall be located as far from sensitive receptors as possible, and they shall be muffled and enclosed within temporary sheds, or insulation barriers or other measures shall be incorporated to the extent feasible.</li> </ul>	<p>Applicant shall develop a site-specific noise reduction program that includes the measures detailed in Mitigation Measure NOISE-1b.</p>	<p>Community and Economic Development Agency, Building Services and Planning Division.</p>	<p>Review and approve the site-specific noise reduction program.</p>	<p>Prior to approval of a grading or building permit.</p>	<p>No approval of a grading or building permit.</p>	

Table V-1 *continued*

Mitigation Measures	Implementation Procedure	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Non-Compliance Sanction	Verification of Compliance
<p><b>NOISE-1c:</b> If pile-driving occurs as part of the Project, it shall be limited to between 8:00 a.m. and 4:00 p.m., Monday through Friday, with no pile driving permitted between 12:30 and 1:30 p.m. No pile driving shall be allowed on Saturdays, Sundays, or holidays.</p>	<p>Construction contractor shall limit pile driving to between 8:00 a.m. and 4:00 p.m., Monday through Friday, and no pile driving shall occur between 12:30 and 1:30 p.m. or on Saturdays, Sundays, or holidays.</p>	<p>Community and Economic Development Agency, Building Services and Planning Division.</p>	<p>Make regular visits to the Project site to ensure that pile driving is limited to the hours specified in Mitigation Measure NOISE-1c.</p>	<p>Ongoing throughout Project Construction Period.</p>	<p>City issues corrective action or stop work order if pile driving occurs outside of the restricted time zone.</p>	
<p><b>NOISE-1d:</b> To further mitigate potential pile-driving and/or other extreme noise-generating construction impacts, a set of site-specific noise attenuation measures shall be completed under the supervision of a qualified acoustical consultant. This plan shall be submitted for review and approval by the City to ensure that maximum feasible noise attenuation is achieved. These attenuation measures shall include as many of the following control strategies as feasible and shall be implemented prior to any required pile-driving activities:</p> <ul style="list-style-type: none"> <li>• Implement “quiet” pile-driving technology, where feasible, in consideration of geotechnical and structural requirements and conditions;</li> <li>• Erect temporary plywood noise barriers around the entire construction site;</li> <li>• Utilize noise control blankets on the building structure as it is erected to reduce noise emission from the site;</li> <li>• Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings; and</li> <li>• Monitor the effectiveness of noise attenuation measures by taking noise measurements.</li> <li>• A third-party peer review, paid for by the applicant, shall be required to assist the City in evaluating the feasibility and effectiveness of the noise reduction plan submitted by the applicant.</li> <li>• A special inspection deposit is required to ensure compliance with the noise reduction plan. The amount of deposit shall be determined by the Building Official and the deposit shall be submitted by the project sponsor concurrent with submittal of the noise reduction plan.</li> </ul>	<p>Applicant shall prepare and implement a set of site-specific noise attenuation measures under the supervision of a qualified acoustical consultant. These attenuation measures shall include as many of the control strategies listed in Mitigation Measure NOISE-1d as feasible. Applicant shall submit a special inspection deposit to the City.</p>	<p>Community and Economic Development Agency, Building Services and Planning Division.</p>	<p>Review and approve the site-specific noise attenuation measures submitted by the Project applicant. Verify that the Applicant has submitted a special inspection deposit.</p>	<p>Prior to approval of a grading or building permit.</p>	<p>No approval of a grading or building permit.</p>	
<p><b>NOISE-1e:</b> A process with the following components shall be established for responding to and tracking complaints pertaining to pile-driving construction noise:</p> <ul style="list-style-type: none"> <li>• A procedure for notifying City Building Division staff and Oakland Police Department;</li> <li>• A list of telephone numbers (during regular construction hours and off-hours);</li> <li>• A plan for posting signs on-site pertaining to complaint procedures and who to notify in the event of a problem;</li> <li>• Designation of a construction complaint manager for the Project; and</li> <li>• Notification of neighbors within 300 feet of the Project construction area at least 30 days in advance of pile-driving activities.</li> </ul> <p>Construction period impacts would still occur with implementation of the measures detailed above. However, because they would be short-term in duration, the City considers this a less-than-significant impact.</p>	<p>Applicant shall devise and implement a system for responding to and tracking complaints pertaining to pile-driving construction noise which includes the measures listed in Mitigation Measure NOISE-1e.</p>	<p>Community and Economic Development Agency, Building Services and Planning Division.</p>	<p>Verify that a system for responding to and tracking noise complaints has been developed by the Applicant.</p>	<p>Prior to approval of a grading or building permit.</p>	<p>No approval of a grading or building permit.</p>	
<p><b>NOISE-2:</b> Once the project design is finalized and the location of specific uses are determined, the project applicant shall have an acoustical analysis prepared that details noise reduction requirements and noise insulation features necessary to achieve acceptable interior and exterior noise levels. The requirements shall be sufficient to achieve a minimum of 45 dBA for all interior building spaces and shall achieve either Normally Acceptable or Conditionally Acceptable ranges for exterior uses according to the applicable land use category as set forth in Table IV.F-4.</p>	<p>Applicant shall prepare an acoustical analysis that details noise reduction requirements and noise insulation features necessary to achieve acceptable interior and exterior noise levels. Applicant shall incorporate all recommended features into the Project.</p>	<p>City of Oakland Community and Economic Development Agency, Building Services Division.</p>	<p>Review building plans for the Project and verify that noise reduction features have been incorporated.</p>	<p>Prior to approval of a building permit.</p>	<p>No approval of a building permit.</p>	<p>Verified by:  Date:</p>



Table V-1 *continued*

Mitigation Measures	Implementation Procedure	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Non-Compliance Sanction	Verification of Compliance
<p>Measures to reduce the interior noise levels may include:</p> <ul style="list-style-type: none"> <li>To meet the City's 45 dBA CNEL interior noise standard, building facade upgrades will be required for building located along Telegraph Avenue. All windows facing Telegraph Avenue must have a sound transmission class (STC) of 31 or greater.</li> <li>All of the proposed buildings on the project site shall be designed and constructed with ventilation systems, to achieve the indoor fresh-air ventilation requirements specified in Chapter 35 of the Uniform Building Code, to achieve the 45 dBA CNEL interior noise standard.</li> </ul> <p>Measures to reduce the exterior noise levels may include:</p> <ul style="list-style-type: none"> <li>The inclusion of plexiglass enclosures for outdoor patio and balcony areas at a height of 5 feet (i.e., to shield balconies and or outdoor patio areas) would provide 5dBA or more in noise reduction for outdoor use areas.</li> </ul> <p>Implementation of the above mitigation measure would reduce this impact to a less-than-significant level by achieving, at a minimum, <i>Conditionally Acceptable</i> noise levels.</p>						
<p><b>NOISE-3:</b> The following measures are required for the operations of the proposed Project:</p> <ul style="list-style-type: none"> <li>All on-site stationary noise sources shall comply with the standards listed in Section 17.120.050 of the City's Planning Code; and</li> <li>Loading docks or loading areas and noise-generating equipment associated with the retail uses will be located as far as practical from all existing and planned residential properties.</li> </ul> <p>Implementation of the above mitigation measure would reduce the impact to below a level of significance.</p>	<ol style="list-style-type: none"> <li>Applicant shall comply with the standards listed in Section 17.120.050 of the City's Planning Code.</li> <li>Applicant shall ensure that noise-generating areas and equipment are located as far as practical from all existing and proposed residential uses.</li> </ol>	<ol style="list-style-type: none"> <li>Community and Economic Development Agency, Building Services and Planning Division.</li> <li>Community and Economic Development Agency, Building Services and Planning Division.</li> </ol>	<ol style="list-style-type: none"> <li>Make regular visits to the Project site to verify compliance with noise regulations.</li> <li>Review building plans for the Project to ensure that proposed noise-generating uses are as far from sensitive uses as practical.</li> </ol>	<ol style="list-style-type: none"> <li>Regularly throughout operation of the Project, at intervals deemed appropriate by the City.</li> <li>Prior to approval of a building permit.</li> </ol>	<ol style="list-style-type: none"> <li>City issues corrective action.</li> <li>No approval of a building permit.</li> </ol>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>
<b>HAZARDS AND HAZARDOUS MATERIALS</b>						
<p><b>HAZ-1a:</b> Prior to issuing any grading, demolition or building permits for the proposed Project affecting Project site Blocks 3 through 9, an environmental investigation shall be conducted at the site by a qualified environmental professional. The environmental investigation shall implement appropriate sampling recommendations presented in previously conducted Phase I site assessment(s) prepared for the Project site, as summarized in Table IV.G-3, in order to adequately characterize subsurface conditions of the site. Environmental investigation workplans shall be submitted to the City of Oakland and RWQCB for review and approval. Information from the environmental investigation shall be used to develop and implement site-specific health and safety plans for construction workers and best management practices (e.g., dust control, storm water runoff control, etc.) appropriate to protect the general public.</p>	<p>Applicant shall ensure the preparation of an environmental investigation by a qualified environmental professional. The environmental investigation shall adequately characterize subsurface conditions within the Project site, as described in the mitigation measure, and its shall be used to develop and implement a health and safety plan for construction workers and best management practices.</p>	<p>City of Oakland, Public Works Agency, Environmental Services Division.</p>	<p>Review the construction plan to ensure it includes adequate health and safety measures to protect construction workers from subsurface hazardous materials.</p>	<p>Prior to approval of a grading or building permit.</p>	<p>No approval of a grading or building permit.</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>

Table V-1 *continued*

Mitigation Measures	Implementation Procedure	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Non-Compliance Sanction	Verification of Compliance
<b>HAZ-1b:</b> Prior to issuing any grading, demolition, or building permit for the proposed Project, a site-specific Health and Safety Plan (HSP) shall be prepared by a qualified industrial hygienist. At a minimum, the HSP shall summarize information collected in environmental investigations for the Project site, including soil and groundwater quality data; establish soil and groundwater mitigation and control specifications for grading and construction activities, including health and safety provisions for monitoring exposure to construction workers; provide procedures to be undertaken in the event that previously unreported contamination is discovered; incorporate construction safety measures for excavation activities; establish procedures for the safe storage and use of hazardous materials at the Project site, if necessary; provide emergency response procedures; and designate personnel responsible for implementation of the Plan. The HSP shall be designed to prevent potential exposures to construction workers above established OSHA Permissible Exposure Limits. The Plan shall be submitted to the City of Oakland for review and approval.	Applicant shall prepare a site-specific HSP which meets the requirements listed in the mitigation measure. The HSP shall be designed to prevent potential exposures to construction workers above established OSHA Permissible Exposure Limits.	City of Oakland, Public Works Agency, Environmental Services Division.	Review and approve the HSP.	Prior to approval of the demolition, grading, or building permit.	No approval of the demolition, grading, or building permit.	<i>Verified by:</i>  <i>Date:</i>
<b>HAZ-1c:</b> Prior to issuing any grading, demolition, or building permit for the proposed Project, a Soil and Groundwater Management Plan (Plan) shall be prepared. The Plan shall include procedures for managing soils and groundwater removed from the site to ensure that any excavated soils and/or dewatered groundwater with contaminants are stored, managed, and disposed of safely, in accordance with applicable regulations. The Plan will incorporate notification and dust mitigation requirements of the BAAQMD (including Title 17, CCR Section 93105). Dewatering procedures will incorporate regulatory requirements for groundwater discharge to storm or sanitary sewers, as outlined in Mitigation Measure HYD-3. The Plan shall be submitted to the City of Oakland and RWQCB for review and approval and shall be implemented throughout all phases of Project development.	Applicant shall prepare and implement a Soil and Groundwater Management Plan, as specified in the mitigation measure, to ensure that any excavated soils and/or dewatered groundwater with contaminants are stored, managed, and disposed of safely, in accordance with applicable regulations.	City of Oakland, Public Works Agency, Environmental Services Division; Regional Water Quality Control Board (RWQCB).	Review and approve the Soil and Groundwater Management Plan.	Prior to approval of a demolition, grading, or building permit.	No approval of a demolition, grading, or building permit.	<i>Verified by:</i>  <i>Date:</i>
<b>HAZ-2a:</b> Covenants, codes, and restrictions for the proposed Project shall strictly prohibit the use of groundwater at the Project site for drinking, irrigation, or industrial purposes. Any dewatering activities required at the Project site following construction activities shall be required to be carried out under the Soil and Groundwater Management Plan prepared for the Project (Mitigation Measure HAZ-1c).	<ol style="list-style-type: none"> <li>Applicant shall include provisions in the covenants, codes, and restrictions for the Project that prohibit the use of groundwater at the Project site for drinking, irrigation, or industrial purposes.</li> <li>Applicant shall ensure that dewatering activities are carried out under the Soil and Groundwater Management Plan prepared for the Project.</li> </ol>	<ol style="list-style-type: none"> <li>City of Oakland, Public Works Agency, Environmental Services Division.</li> <li>Refer to Mitigation Measure HAZ-1c.</li> </ol>	<ol style="list-style-type: none"> <li>Review the covenants, codes, and restrictions to ensure that the use of groundwater is prohibited.</li> <li>Refer to Mitigation Measure HAZ-1c.</li> </ol>	<ol style="list-style-type: none"> <li>Prior to approval of Final Map.</li> <li>Refer to Mitigation Measure HAZ-1c.</li> </ol>	<ol style="list-style-type: none"> <li>No approval of Final Map.</li> <li>Refer to Mitigation Measure HAZ-1c.</li> </ol>	<i>Verified by:</i>  <i>Date:</i>
<b>HAZ-2b:</b> Prior to issuing any permits for construction within the Project site, a Human Health Risk Assessment (HHRA) shall be conducted and/or updated by a qualified environmental professional. This HHRA shall employ methodology from the <i>City of Oakland Urban Land Redevelopment: Guidance Document</i> for the Oakland Risk Based Corrective Action (RBCA) program to evaluate potential health risks from petroleum hydrocarbons, metals, solvents, and other volatile organic compounds in soils and groundwater. Depending on the findings of the HHRA, recommendations may be made for administrative or engineering controls to minimize public exposure to hazardous materials, if warranted. These controls could potentially include vapor barriers for building foundations, encapsulation of the site with building foundations and paved parking surfaces to prevent exposure to soils, and implementation of an Operations and Maintenance Plan to insure prescribed controls are implemented and maintained. The controls shall ensure that any potential added health risks to future site users are reduced to a cumulative risk of less than $1 \times 10^{-5}$ (a calculated risk of 1 in 100,000 persons exposed) for carcinogens and a cumulative hazard index of 1.0. The HHRA shall be submitted to the City of Oakland and RWQCB for review and approval.	Applicant shall prepare and/or update a HHRA for the Project site that meets the requirements outlined in the mitigation measure.	City of Oakland, Public Works Agency, Environmental Services Division; Regional Water Quality Control Board (RWQCB).	Review and approve the HHRA.	Prior to approval of the demolition permit.	No approval of the demolition permit.	<i>Verified by:</i>  <i>Date:</i>

Table V-1 *continued*

Mitigation Measures	Implementation Procedure	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Non-Compliance Sanction	Verification of Compliance
<b>HAZ-3:</b> The implementation of Mitigation Measure HAZ-1b would require a Site Safety Plan/Soil and Groundwater Management Plan (Plan). The Plan will establish procedures for the safe storage and use of hazardous materials at the Project site, if necessary; provide emergency response procedures; and designate personnel responsible for implementation of the Plan. No other mitigation is required.	Refer to Mitigation Measure HAZ-1b.	Refer to Mitigation Measure HAZ-1b.	Refer to Mitigation Measure HAZ-1b.	Refer to Mitigation Measure HAZ-1b.	Refer to Mitigation Measure HAZ-1b.	<i>Verified by:</i>  <i>Date:</i>
<b>HAZ-4:</b> All asbestos-containing materials shall be abated by a certified asbestos abatement contractor in accordance with construction worker health and safety regulations and the regulations and notification requirements of the Bay Area Air Quality Management District (BAAQMD) (29 CFR 1926.1101; 40 CFR 61 and 152; Title 8 CCR Section 1529; BAAQMD Regulation 11, Rule 2). The removal and disposal of lead-based paint within the Project site shall be completed in accordance with federal and State construction worker health and safety regulations (29 CFR, Part 1926.62; Title 8, CCR Section 532.1; CDHS Training, Certification and Work Practices Rule).	Applicant shall remove asbestos and lead-containing substances from the Project site in accordance with all applicable regulations. Plans for the abatement of these materials shall be incorporated into the construction plan.	City of Oakland, Public Works Agency, Environmental Services Division.	Review the construction plan for the Project to ensure that asbestos and lead will be removed from the Project site in a way that is consistent with hazardous materials regulations.	Prior to approval of the construction plan.	No approval of the construction plan.	<i>Verified by:</i>  <i>Date:</i>
<b>HAZ-5:</b> Implementation of existing regulatory requirements for school siting, and preparation and implementation of a Site Safety Plan/Soil and Groundwater Management Plan (Mitigation Measure HAZ-1b) and lead and asbestos regulations (Mitigation Measure HAZ-4) would reduce this impact to a less-than-significant level. No additional mitigation is required.	Refer to Mitigation Measure HAZ-1b and HAZ-4.	Refer to Mitigation Measure HAZ-1b and HAZ-4.	Refer to Mitigation Measure HAZ-1b and HAZ-4.	Refer to Mitigation Measure HAZ-1b and HAZ-4.	Refer to Mitigation Measure HAZ-1b and HAZ-4.	<i>Verified by:</i>  <i>Date:</i>
<b>HISTORIC ARCHITECTURAL, ARCHAEOLOGICAL AND PALEONTOLOGICAL RESOURCES</b>						
<b>HIST-1a:</b> A paleontological resources monitoring plan shall be developed in consultation with a qualified paleontologist prior to Project-related ground-disturbing activities. This monitoring plan shall incorporate the findings of Project-specific geotechnical investigations to identify the location and depth of deposits that have a high likelihood of containing paleontological resources and that may be encountered by Project activities. This information will indicate the depth of overlying non-sensitive soils (i.e., artificial fill and prior disturbance) within the Project area to allow a more effective determination of where paleontological monitoring is appropriate.	Applicant shall prepare a paleontological resources monitoring plan that meets the requirements listed in the mitigation measure.	City of Oakland Community and Economic Development Agency, Planning Division.	Review and approve the paleontological resources monitoring plan.	Prior to approval of a grading or building permit.	No approval of a grading or building permit.	<i>Verified by:</i>  <i>Date:</i>
<b>HIST-1b:</b> A qualified paleontologist shall monitor all ground-disturbing activity that occurs at depths within the Project area determined to be sensitive in the paleontological monitoring plan. Monitoring shall continue until, in the paleontologist's opinion, significant, nonrenewable paleontological resources are unlikely to occur.  In the event that paleontological resources are encountered during excavation, all work within 50 feet of the find shall be redirected until the monitor has evaluated the situation and provided recommendations for the protection of, or mitigation of adverse effects to, significant paleontological resources. Mitigation for impacts to significant paleontological resources shall include thorough documentation of the find and its immediate context to recover scientifically-valuable information. Upon completion of paleontological monitoring, a monitoring report shall be prepared. This scope of this report shall be approved by the City, but at a minimum the report will document the methods, results, and recommendations of the monitoring paleontologist.	<ol style="list-style-type: none"> <li>1) Applicant shall retain a paleontologist to monitor ground-disturbing activity within the Project site, as described in the mitigation measure.</li> <li>2) Work within 50 feet of any paleontological finds shall halt in the event that such resources are identified.</li> <li>3) If paleontological resources are identified within the Project site, the paleontologist shall evaluate the resources and provide recommendations regarding the protection of, or mitigation of adverse effects to, significant paleontological resources. A monitoring report shall be prepared if impacts to paleontological resources will be mitigated.</li> </ol>	<ol style="list-style-type: none"> <li>1) City of Oakland Community and Economic Development Agency, Planning Division.</li> <li>2) City of Oakland Community and Economic Development Agency, Planning Division.</li> <li>3) City of Oakland Community and Economic Development Agency, Planning Division.</li> </ol>	<ol style="list-style-type: none"> <li>1) Receive notice that a paleontologist has been retained.</li> <li>2) Verify that work is suspended if paleontological resources are found.</li> <li>3) Review the paleontological resources monitoring report, if one is prepared.</li> </ol>	<ol style="list-style-type: none"> <li>1) Prior to approval of a grading or building permit.</li> <li>2) During Project construction.</li> <li>3) During Project construction.</li> </ol>	<ol style="list-style-type: none"> <li>1) No approval of a grading or building permit.</li> <li>2) City issues corrective action or stop work order.</li> <li>3) City issues corrective action.</li> </ol>	<i>Verified by:</i>  <i>Date:</i>

Table V-1 *continued*

Mitigation Measures	Implementation Procedure	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Non-Compliance Sanction	Verification of Compliance
<p><b>HIST-2a:</b> A pre-construction archaeological testing program shall be implemented to help identify whether historic or unique archaeological resources exist within the Project site. Examples of potential historic or unique archaeological resources that could be identified within the Project site include: back-filled wells; basements of buildings that pre-date Euro-American buildings that were constructed on the Project site; and backfilled privies. For these resources to be considered significant pursuant to CEQA, they would have to have physical integrity <i>and</i> meet at least one of the criteria listed in <i>CEQA Guidelines</i> section 15064.5(a)(3) (for historic resources) and/or CEQA section 21083.2(g) (for unique archaeological resources). These criteria include: association with events that have made a significant contribution to the broad patterns of California history and cultural heritage; association with the lives or persons important in our past; embodiment of the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; yield, or may likely yield, information important in prehistory or history; contains information needed to answer important scientific research questions and be subject to a demonstrable public interest in that information; have a special and particular quality such as being the oldest of its type or the best available example of its type; or be directly associated with a scientifically recognized important prehistoric or historic event or person.</p> <p>The testing program, in conjunction with a sensitivity study, shall use a combination of subsurface investigation methods (including backhoe trenching, augering, and archaeological excavation units, as appropriate). The purpose of the testing program is to: (1) identify the presence and location of potentially-significant archaeological deposits; (2) determine if such deposits meet the definition of a historical resource or unique archaeological resource under section 21083.2(g) of the CEQA statutes; (3) guide additional archaeological work, if warranted, to recover the information potential of such deposits; and (4) refine the archaeological monitoring plan.</p> <p>If historic or unique archaeological resources associated with the Chinese community are identified within the project site and are further determined to be unique, the City shall consult with representatives of an established local Chinese-American organization(s) regarding the potential use of the archaeological findings for interpretive purposes.</p>	<ol style="list-style-type: none"> <li>1) Applicant shall retain an archaeologist to implement a pre-construction archaeological testing program, as described in the mitigation measure.</li> <li>2) Archaeologist shall prepare a research design if date recovery is deemed necessary.</li> <li>3) Applicant shall consult with representatives of the Chinese-American community regarding the potential use of archaeological findings.</li> </ol>	<ol style="list-style-type: none"> <li>1) City of Oakland Community and Economic Development Agency, Planning Division.</li> <li>2) City of Oakland Community and Economic Development Agency, Planning Division.</li> <li>3) City of Oakland Community and Economic Development Agency, Planning Division.</li> </ol>	<ol style="list-style-type: none"> <li>1) Receive notice that an archaeologist has been retained.</li> <li>2) Verify that a research design is prepared.</li> <li>3) Verify that the appropriate groups have been contacted regarding archaeological findings within the Project site.</li> </ol>	<ol style="list-style-type: none"> <li>1) Prior to approval of a grading permit.</li> <li>2) Prior to approval of a grading permit</li> <li>3) During Project construction.</li> </ol>	<ol style="list-style-type: none"> <li>1) No approval of the grading permit.</li> <li>2) No approval of the grading permit.</li> <li>3) No approval of the grading permit.</li> </ol>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>
<p><b>HIST-2b:</b> Archaeological monitoring of ground-disturbing construction in the Project area shall be conducted, as appropriate and if necessary, based on the results of the pre-construction testing program and the potential for encountering unidentified archaeological deposits. Upon completion of the pre-construction testing program specified in Mitigation Measure HIST-2a, the extent of archaeological monitoring during Project construction will be assessed, and the scope and frequency of the monitoring required by this mitigation measure shall be based on the findings of this assessment. Monitoring shall be conducted by a cultural resource professional approved by the City who meets the Secretary of the Interior's Professional Qualifications Standards for Prehistoric and Historical Archaeology.</p> <p>Upon completion of such archaeological monitoring, evaluation, or data recovery mitigation, the archaeologist shall prepare a report documenting the methods, results, and recommendations of the investigation, and submit this report to the NWIC. Public displays of the findings of archaeological recovery excavation(s) of historical or unique resources shall be prepared. As appropriate, brochures, pamphlets, or other media, shall be prepared for distribution to schools, museums, libraries, and – in the case of Chinese-American archaeological deposits – Chinese-American organizations.</p>	<ol style="list-style-type: none"> <li>1) Applicant shall retain an archaeologist to monitor ground-disturbing activity within the Project site, as described in the mitigation measure.</li> <li>2) Archaeologist shall halt work in the vicinity of the archaeological resource until findings can be made regarding whether the resource meets the CEQA definition of an archaeological or historic resource.</li> <li>3) If identified archaeological resources meet CEQA criteria for archaeological or historic resources, they shall be avoided by construction activities. If avoidance is not feasible, then effects to the deposit shall be mitigated through a data recovery strategy developed by the evaluating archaeologist, as described in the mitigation measure. This report shall be submitted to the NWIC.</li> </ol>	<ol style="list-style-type: none"> <li>1) City of Oakland Community and Economic Development Agency, Planning Division.</li> <li>2) City of Oakland Community and Economic Development Agency, Planning Division.</li> <li>3) City of Oakland Community and Economic Development Agency, Planning Division.</li> </ol>	<ol style="list-style-type: none"> <li>1) Receive notice that an archaeologist has been retained.</li> <li>2) Verify that work is suspended if archaeological resources are found.</li> <li>3) Review and approve the archaeological resources mitigation plan, if one is prepared.</li> </ol>	<ol style="list-style-type: none"> <li>1) Prior to approval of the grading permit.</li> <li>2) During Project construction.</li> <li>3) During Project construction.</li> </ol>	<ol style="list-style-type: none"> <li>1) No approval of the grading permit.</li> <li>2) City issues corrective action or stop work order.</li> <li>3) City issues corrective action.</li> </ol>	

Table V-1 *continued*

Mitigation Measures	Implementation Procedure	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Non-Compliance Sanction	Verification of Compliance
<p><b>HIST-3:</b> Should human remains be encountered by Project activities, construction activities shall be halted and the County Coroner notified immediately. If the human remains are of Native American origin, the Coroner must notify the Native American Heritage Commission (NAHC) within 24 hours of this identification, and a qualified archaeologist should be contacted to evaluate the situation. The NAHC will identify a Native American Most Likely Descendent (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. The archaeologist shall recover scientifically-valuable information, as appropriate and in accordance with the recommendations of the MLD.</p> <p>Upon completion of such analysis, as appropriate, the archaeologist shall prepare a report documenting the methods and results of the investigation. This report shall be submitted to the NWIC.</p>	<ol style="list-style-type: none"> <li>1) Construction activity shall halt and the County Coroner shall be notified if human remains are uncovered.</li> <li>2) Applicant shall notify the appropriate authorities and retain an archaeologist to recover scientifically-valuable information about the human remains and to prepare a report for submission to the NWIC.</li> </ol>	<ol style="list-style-type: none"> <li>1) City of Oakland Community and Economic Development Agency, Planning Division.</li> <li>2) City of Oakland Community and Economic Development Agency, Planning Division.</li> </ol>	<ol style="list-style-type: none"> <li>1) Verify that work is suspended if human remains are found.</li> <li>2) Verify that the appropriate authorities are notified about the presence of human remains.</li> </ol>	<ol style="list-style-type: none"> <li>1) During Project construction.</li> <li>2) During Project construction.</li> </ol>	<ol style="list-style-type: none"> <li>1) City issues corrective action or stop work order.</li> <li>2) City issues corrective action.</li> </ol>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>
<p><i>Mitigation Measures HIST-4a, HIST-4b, and HIST-5 shall be implemented based on the adopted Project variant involving the Great Western Power Company Building. The following three variants are proposed: 1) demolition of the Great Western Power Company Building (Variant 1); 2) partial demolition of the Great Western Power Company Building (Variant 2); and 3) preservation of the Great Western Power Company Building (Variant 3).</i></p>						
<p><b>HIST-4a (Variant 1 and 2):</b> The following measures shall be implemented to preserve information about the resource for further study:</p> <ul style="list-style-type: none"> <li>• Record the Great Western Power Company Building in accordance with the procedures of the Historical American Buildings Survey (HABS) through measured drawings, written histories, and large-format photographs;</li> <li>• Prepare a history of the Great Western Power Company Building that incorporates oral history, documentary research, and architectural information;</li> <li>• Prepare a brochure, regarding the building's historical association with one of three major early 20th century northern California power companies, to be made available at local libraries and museums;</li> <li>• Incorporate interpretive elements, such as signs and placards, into public areas and street frontages proposed as part of the Project.</li> <li>• If full demolition of the building occurs, salvage architectural elements from the building, including hardware, doors, paneling, fixtures, and equipment, and incorporate these elements into new construction; and</li> <li>• Curate all materials, notes, and reports at the OHR, and submit copies to the NWIC.</li> </ul> <p>The City may also consider requiring payment of pro-rata funds to restore historic buildings in the Uptown District to further reduce this impact. Even with extensive documentation, however, the demolition of the building or portions of the building would result in the loss of a historic resource that is associated with significant historical events and is an example of outstanding design and function. Therefore, the demolition or partial demolition of the building would remain a significant and unavoidable impact.</p>	<p>Applicant shall preserve historic information about the Great Western Power Company Building, as described in the mitigation measure.</p>	<p>City of Oakland Community and Economic Development Agency, Planning Division.</p>	<p>Verify that the historic preservation measures detailed in the mitigation measure are implemented.</p>	<p>Prior to approval of the demolition permit.</p>	<p>No approval of the demolition permit.</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>
<p><b>HIST-4b (Variant 3):</b> Any modifications to the exterior of the building that may be proposed as part of its preservation and reuse shall be developed in consultation with staff at the Planning Department and a qualified historic preservation architect to determine an appropriate treatment strategy. In the event that this measure is determined feasible and is implemented, Mitigation Measure HIST-5 shall also be implemented to ensure that development on the adjacent properties does not adversely impact the building's integrity.</p>	<p>Applicant shall retain a qualified historic preservation architect to work with the Planning Division to develop an appropriate treatment strategy for the preservation and reuse of the Great Western Power Company Building.</p>	<p>City of Oakland Community and Economic Development Agency, Planning Division.</p>	<p>Ensure that agreed-upon plans for the modification of the Great Western Power Company Building are incorporated into the Project.</p>	<p>Prior to approval of a building permit.</p>	<p>No approval of a building permit.</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>

Table V-1 *continued*

Mitigation Measures	Implementation Procedure	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Non-Compliance Sanction	Verification of Compliance
<p><b>HIST-5 (Variant 3):</b> The following two-part mitigation measure shall be implemented:</p> <ul style="list-style-type: none"> <li>The building's urban setting on the portion of Block 7 fronting Thomas L. Berkley Way (20<sup>th</sup> Street) shall be documented prior to Project implementation. At a minimum, this documentation shall include panoramic streetscape photographs and an interpretive display that shall provide an overview of the former urban context and describe how this context contributed to the building's significance. This information shall be presented in an on-site display at the preserved Great Western Power Company Building to enable a viewer to easily associate the former setting with the existing building (i.e., panoramic streetscape photographs to show the building within the former street frontage). Upon completion of this documentation, a copy of all notes, photographs, and analysis shall be archived at the OHR and submitted to the NWIC.</li> <li>The City shall ensure that the designs for new adjacent buildings are evaluated with respect to minimizing setting impacts on the historic resource. Project buildings adjacent to the Great Western Power Company Building shall be designed in a manner that minimizes inappropriate differences in mass and scale, if feasible. For example, designs could call for adjacent buildings to step-up to the height of the tallest Project element north of 20<sup>th</sup> Street, thereby reducing a potentially abrupt contrast between new buildings and the two-story Great Western Power Company Building. If the designs for the adjacent buildings follow the <i>Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Preservation of Historic Buildings</i>, then the Project will have a less-than-significant impact, pursuant to CEQA §15064.5(b)(3).</li> </ul> <p>However, if it is not feasible to minimize material impairment of the resource, then the impact would remain significant and unavoidable.</p>	<ol style="list-style-type: none"> <li>Applicant shall document the urban setting of the Great Western Power Company Building, as specified in the mitigation measure.</li> <li>The Planning Division shall ensure that the design of the buildings adjacent to the Great Western Power Company Building is consistent with the <i>Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Preservation of Historic Buildings</i>.</li> </ol>	<ol style="list-style-type: none"> <li>City of Oakland Community and Economic Development Agency, Planning Division.</li> <li>City of Oakland Community and Economic Development Agency, Planning Division.</li> </ol>	<ol style="list-style-type: none"> <li>Verify that the urban setting of the Great Western Power Company Building is documented.</li> <li>Review the building permit application to verify that proposed buildings adjacent to the Great Western Power Company Building would not materially impair the historic integrity of the structure.</li> </ol>	<ol style="list-style-type: none"> <li>Prior to approval of a building permit.</li> <li>Prior to approval of a building permit.</li> </ol>	<ol style="list-style-type: none"> <li>No approval of a building permit.</li> <li>No approval of a building permit.</li> </ol>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>
<p><b>HIST-6:</b> If the relocation of the PDHPs proposed for demolition on the Project site is not feasible, the buildings shall be documented at a level of detail commensurate with their local importance. At a minimum, this effort shall include photo-documentation, as well as local oral history about the past uses and occupants of the buildings. This documentation shall be planned in consultation with OCHS in order to: 1) identify those qualities that support and justify the property's local significance; and 2) efficiently record and disseminate such information in a way that most effectively offsets the loss of such buildings. At the completion of this documentation, all notes, photographs, and analysis shall be archived at the OHR, and a complete copy shall be submitted to the NWIC.</p>	<p>Applicant shall document the PDHPs proposed for demolition if relocation is not feasible, as described in the mitigation measure. This documentation shall be submitted to the OHR and the NWIC.</p>	<p>City of Oakland Community and Economic Development Agency, Planning Division.</p>	<p>Review the documentation of the PDHPs.</p>	<p>Prior to approval of a demolition permit.</p>	<p>No approval of a demolition permit.</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>
<p><b>HIST-7:</b> No mitigation measure is necessary to address the less-than-significant impact.</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>
<p><b>HIST-8a:</b> If feasible, the three PDHPs that contribute to the 19<sup>th</sup> and San Pablo Commercial District (located at 1958-60 San Pablo Avenue, 1966-68 San Pablo Avenue, and 1972 San Pablo Avenue) shall be preserved in their existing condition or rehabilitated and incorporated into the proposed Project. Any modifications to the exterior of the buildings that may be proposed as part of their rehabilitation shall be developed in consultation with the Planning Department and a qualified historic preservation architect to determine an appropriate treatment strategy that preserves the important historic qualities of the structures.</p>	<ol style="list-style-type: none"> <li>Applicant shall incorporate the three PDHPs listed in the mitigation measure into the final Project design.</li> <li>The Planning Division and a qualified historic preservation architect shall review the plans for the reuse of the PDHPs and shall make recommendations, if necessary, to alter the plans to preserve the important historic qualities of the buildings.</li> <li>Applicant shall revise the plans for reuse of the PDHPs per the recommendations of the Planning Division and the qualified historic preservation architect.</li> </ol>	<ol style="list-style-type: none"> <li>Community and Economic Development Agency, Building Services and Planning Division</li> <li>Community and Economic Development Agency, Building Services and Planning Division</li> <li>Community and Economic Development Agency, Building Services and Planning Division</li> </ol>	<ol style="list-style-type: none"> <li>Review the final building plans to ensure they incorporate the PDHPs.</li> <li>Forward recommendations on alteration of the PDHPs to the Applicant.</li> <li>Review the final building plans to verify that recommendations to preserve the historical qualities of the PDHPs have been incorporated.</li> </ol>	<ol style="list-style-type: none"> <li>Prior to approval of a grading or building permit.</li> <li>Prior to approval of a grading or building permit.</li> <li>Prior to approval of a grading or building permit.</li> </ol>	<ol style="list-style-type: none"> <li>No approval of a grading or building permit.</li> <li>No approval of a grading or building permit.</li> <li>No approval of a grading or building permit.</li> </ol>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>

Table V-1 *continued*

Mitigation Measures	Implementation Procedure	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Non-Compliance Sanction	Verification of Compliance
<p><b>HIST-8b:</b> If the City determines that preservation of the three PDHPs that contribute to the 19<sup>th</sup> and San Pablo Commercial District (located at 1958-60 San Pablo Avenue, 1966-68 San Pablo Avenue, and 1972 San Pablo Avenue) is not feasible, the City shall inform the applicant for the Thomas L. Berkley Square Project of the potential cumulative impact prior to the implementation of the Uptown Mixed-Use Project. The City shall consult with both project applicants to establish a fair division of responsibility to fund mitigation measures to preserve information about the 19<sup>th</sup> and San Pablo Commercial District for future study. These mitigation measures shall include the following:</p> <ul style="list-style-type: none"> <li>Record the 19<sup>th</sup> and San Pablo Commercial District in accordance with the procedures of HABS through measured drawings, written histories, and large-format photographs;</li> <li>Prepare a history of the 19th and San Pablo Commercial District that incorporates oral history, documentary research, and architectural information; this history could utilize non-written media and production techniques, including video photography;</li> <li>Prepare a brochure, regarding the district's historical association with turn-of-the-century Oakland commerce, to be made available at local libraries and museums;</li> <li>Salvage architectural elements from the buildings proposed for demolition, including hardware, doors, paneling, fixtures, and equipment, and incorporate these elements into new construction; and</li> <li>Curate all materials, notes, and reports at the OHR, and submit copies to the NWIC.</li> </ul> <p>Even with extensive documentation, however, a cumulative impact will result from the demolition of 63 percent of the 19<sup>th</sup> and San Pablo Commercial District's contributing buildings. This loss of contributing buildings will materially affect the district's ability to convey its historical significance, which will result in a significant, unavoidable cumulative impact.</p>	<p>The Planning Division shall consult with the applicants of the proposed Project and the Thomas L. Berkley Square Project to establish a fair division of responsibility to fund mitigation measures to preserve information about the 19<sup>th</sup> and San Pablo Commercial District for future study.</p>	<p>City of Oakland Community and Economic Development Agency, Planning Division.</p>	<p>Ensure the Applicant funds a fair share of the mitigation measures to reduce cumulative impacts to the 19<sup>th</sup> and San Pablo Commercial District.</p>	<p>Prior to approval of a demolition permit.</p>	<p>No approval of a demolition permit.</p>	<p><i>Verified by:</i>  <i>Date:</i></p>
<p><b>HIST-9:</b> No mitigation measure is necessary to address this less-than-significant impact.</p>	N/A	N/A	N/A	N/A	N/A	N/A
<p><b>HIST-10:</b> No mitigation measure is necessary to address this less-than-significant impact.</p>	N/A	N/A	N/A	N/A	N/A	N/A
<p><b>HIST-11:</b> No mitigation measure is necessary to address this less-than-significant impact.</p>	N/A	N/A	N/A	N/A	N/A	N/A
<p><b>HIST-12:</b> No mitigation measure is necessary for this less-than-significant impact.</p>	N/A	N/A	N/A	N/A	N/A	N/A
<p><b>HIST-13:</b> Prior to Project initiation, the plan for the enhancement of street features and lighting on Telegraph Avenue shall be reviewed by planning staff to ensure that it conforms to the <i>Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Preservation of Historic Buildings</i>. Conformance with these guidelines will ensure that these improvements are compatible with nearby historical resources, and will mitigate potential Project effects to less-than-significant levels.</p>	<p>Planning Division shall review the plan for the enhancement of street features and lighting on Telegraph Avenue to ensure that it conforms to the <i>Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Preservation of Historic Buildings</i>.</p>	<p>City of Oakland Community and Economic Development Agency, Planning Division.</p>	<p>Ensure that the plan for the enhancement of street features and lighting on Telegraph Avenue conforms to the <i>Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Preservation of Historic Buildings</i>.</p>	<p>Prior to the implementation of the Telegraph Avenue street features and lighting plan.</p>	<p>Planning Division issues corrective action.</p>	<p><i>Verified by:</i>  <i>Date:</i></p>

Table V-1 *continued*

Mitigation Measures	Implementation Procedure	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Non-Compliance Sanction	Verification of Compliance
<b>AESTHETIC RESOURCES</b>						
<p><b>AES-1:</b> The following measures shall be incorporated into the final Project design:</p> <ul style="list-style-type: none"> <li>• Create streetscape vitality and enhance the pedestrian experience through detailed treatment of building facades, including entryways, fenestration, and signage, and through the use of carefully chosen building materials, texture, and color.</li> <li>• Design of building facades shall include sufficient articulation and detail to avoid the appearance of blank walls or box-like forms.</li> <li>• Exterior materials utilized in construction of new buildings, as well as site and landscape improvements, shall be high quality and shall be selected for both their enduring aesthetic quality and for their long term durability.</li> <li>• Ensure that the architectural and landscape treatment of the proposed parking structure promotes human scale and pedestrian activity.</li> <li>• Detailed designs for the public park shall be developed. The design shall emphasize the public nature of the space and pedestrian comfort. The plaza design shall consider sun/shade patterns during mid-day hours throughout the year. The plaza design shall be sensitively integrated with the streetscape.</li> </ul>	Applicant shall incorporate the design features and recommendations listed in the mitigation measure into the final Project design.	City of Oakland Community and Economic Development Agency, Planning Division.	Verify that the design features and recommendations listed in the mitigation measure are incorporated into the design review application for the Project.	Prior to approval of a building permit.	No approval of a building permit.	<p><i>Verified by:</i></p> <p><i>Date:</i></p>
<p><b>AES-2a:</b> The specific reflective properties of Project building materials shall be assessed by the City during Design Review as part of the Project's Development Standards, Procedures and Guidelines. Design review shall ensure that the use of reflective exterior materials is minimized and that proposed reflective material would not create additional daytime or nighttime glare.</p>	Planning staff shall assess the reflective properties of Project buildings to ensure that the Project will not create additional daytime or nighttime glare.	City of Oakland Community and Economic Development Agency, Planning Division.	Ensure that any recommendations that staff or the Design Review Committee makes in regard to reflective materials are incorporated into the Project.	Prior to approval of a building permit.	No approval of a building permit.	<p><i>Verified by:</i></p> <p><i>Date:</i></p>
<p><b>AES-2b:</b> Specific lighting proposals shall be reviewed and approved by the City prior to installation. This review shall ensure that any outdoor night lighting for the Project is down shielded and would not create additional nighttime glare.</p>	Planning staff shall assess proposed lighting of Project buildings and streets to ensure that the Project will not create additional nighttime glare.	City of Oakland Community and Economic Development Agency, Planning Division.	Ensure that any recommendations that staff or the Design Review Committee makes in regard to lighting are incorporated into the Project.	Prior to approval of a building permit.	No approval of a building permit.	<p><i>Verified by:</i></p> <p><i>Date:</i></p>
<b>WIND</b>						
<p><b>WIND-1a:</b> The final design of the high-rise buildings on Blocks 5 and 7 shall be in accordance with one or more of the following design guidelines. In addition, as part of the design review process for these high-rise buildings, a qualified wind consultant shall ensure the Project is designed in accordance with these guidelines:</p> <ul style="list-style-type: none"> <li>• Align long axis of each building along a northwest-southeast alignment to reduce exposure of the wide faces of the building to westerly or southeasterly winds.</li> <li>• West or southeasterly building faces shall be articulated and modulated through the use of architectural devices such as surface articulation; variation; variation of planes, wall surfaces, and heights; and the placement of setbacks and other similar features.</li> <li>• Utilize properly-located landscaping that mitigates high winds. Porous materials (e.g., vegetation, hedges, screens, latticework, perforated metal), which offer superior wind shelter compared to solid surfaces, shall be used.</li> <li>• Avoid narrow gaps between buildings where westerly or southeasterly winds could be accelerated; or</li> <li>• Avoid breezeways or notches at the upwind corners of the building.</li> </ul>	Applicant shall retain a qualified wind consultant to determine if the Project is in compliance with the guidelines listed in the mitigation measure.	City of Oakland Community and Economic Development Agency, Planning Division.	Ensure that the Project is designed in compliance with the wind-reducing guidelines in the mitigation measure.	Prior to approval of a building permit.	No approval of a building permit.	<p><i>Verified by:</i></p> <p><i>Date:</i></p>



Table V-1 *continued*

Mitigation Measures	Implementation Procedure	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Non-Compliance Sanction	Verification of Compliance
<p><u>WIND-1b</u>: A qualified wind consultant shall review and evaluate the final design of the high-rise buildings on Blocks 5 and 7, and shall determine whether incorporated design features would reduce wind impacts to a less-than-significant level. If the wind consultant determines that these design features would reduce wind impacts to a less-than-significant level (i.e., less than 36 mph), no further mitigation would be required. If the wind consultant determines that significant adverse wind impacts could occur, models of the proposed Blocks 5 and 7 buildings shall be subject to wind tunnel testing to determine if the buildings would result in uncomfortable or hazardous winds. The wind consultant shall work with the Project architect to develop further building design modifications that would reduce wind impacts to a less-than-significant level (i.e., standard of less than 36 mph).</p>	<p>1) Applicant shall retain a qualified wind consultant to review and evaluate the final design of the high-rise buildings on Blocks 5 and 7, and determine whether incorporated design features would reduce wind impacts to a less-than-significant level.</p> <p>2) If the wind consultant determines that buildings on Blocks 5 and 7 could result in significant wind-related impacts, the Applicant shall subject models of the proposed buildings to wind tunnel testing. Based on the results of this testing, the applicant shall incorporate design modifications into the Project that would reduce wind impacts to a less-than-significant level.</p>	<p>1) City of Oakland Community and Economic Development Agency, Planning Division.</p> <p>2) City of Oakland Community and Economic Development Agency, Planning Division.</p>	<p>1) Review the written findings of the wind consultant.</p> <p>2) Review project plans to ensure they are consistent with the recommendations of the wind consultant.</p>	<p>1) Prior to approval of a building permit.</p> <p>2) Prior to approval of a building permit.</p>	<p>1) No approval of a building permit.</p> <p>2) No approval of a building permit.</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>

## VII. REPORT PREPARATION

### A. REPORT PREPARATION

#### **LSA Associates, Inc.**

Berkeley, CA 94710

David Clore, AICP, Principal, Principal-in-Charge

Lynette Dias, AICP, Principal, Project Manager

Adam Weinstein, Assistant Project Manager

Tony Chung, Principal, Air Quality and Noise Manager

Christian Gerike, Principal, Cultural Resources Manager

Andrew Pulcheon, Archaeologist

Shannon Allen, Planner

Skip Shimmin, Graphics Manager

Patty Linder, Graphics and Production

Susan Smith, Word Processing

#### **Baseline Environmental Consulting.**

5900 Hollis Street, Suite D

Emeryville, CA 94608

Yane Nordhav, R.G., Principal-in-Charge

Bruce Abelli-Amen, R.G., C.H.G.

Kevin O'Dea, C.E.G.

Todd Taylor, R.E.A.

#### **Korve Engineering, Inc.**

155 Grand Avenue, Suite 400

Oakland, CA 94612

Bill Burton, Principal

#### **Environmental Vision.**

2550 9<sup>th</sup> Street

Berkeley, CA 94710

Marsha Gale, Principal

#### **Donald Ballanti, Certified Consulting Meteorologist.**

1424 Scott Street

El Cerrito, CA 94530

## **B. CITY OF OAKLAND**

City of Oakland  
250 Frank Ogawa Plaza  
Oakland, CA 94612

Claudia Cappio, Deputy Director of City Planning  
Catherine E. Payne, Planner III, Planning and Zoning Division  
Dan Vanderpriem, Urban Economic Coordinator  
Jens Hillmer, Urban Economic Analyst  
Heather Lee, Deputy City Attorney

## **APPENDIX A-1**

## APPENDIX A-1

### **REVISIONS TO ABAG EMPLOYMENT ALLOCATIONS ARE NOT ANTICIPATED TO SUBSTANTIALLY CHANGE EIR CONCLUSIONS FROM TRANSPORTATION MODEL ANALYSES**

This response addresses the concerns raised about the effects of the recently revised ABAG employment allocations on the results of the transportation analyses in the *Uptown Mixed-use Project EIR*. The text that follows responds to those concerns and makes three main points. First, the response explains that the recently identified inaccuracies in the original ABAG employment allocations do not affect the land use data for Oakland as the allocations of Oakland employment are not based on the ABAG data. Second, the validity of the Oakland land use data supports the adequacy and validity of the EIR transportation analyses and forecasts given the importance of the Oakland land use data to those analyses and their results. Third, the response goes on to explain that possible revisions to the allocations of employment in other cities in Alameda County outside of the EIR study area are not anticipated to substantially change the EIR conclusions drawn from the recent transportation model analyses.

### **ACCMA REVIEW OF MODEL LAND USE DATA IS CURRENTLY UNDERWAY IN LIGHT OF RECENTLY REVISED EMPLOYMENT ALLOCATIONS FROM ABAG**

Since the transportation analysis for the *Uptown EIR* was completed, the Association of Bay Area Governments (ABAG) found problems with its allocations of *Projections 2002* employment data to Census Tracts within cities in the region, and recently issued revised employment allocations. Citywide employment totals for jurisdictions remain the same as those originally provided by ABAG.<sup>1</sup> The *Projections 2002* household and population totals for jurisdictions and the allocations of households and population to Census Tracts within jurisdictions remain unchanged and are not affected by the recent ABAG revisions to the allocations of employment. The Alameda County Congestion Management Agency (ACCMA) is currently in the process of reviewing the employment data in the ACCMA model and revising the employment allocations in the model for those situations affected by the ABAG revisions.

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<sup>1</sup> Per communications with ABAG staff on October 23, 2003 (Hing Wong) and November 3, 2003 (Brian Kirking). Conversations with ABAG staff indicated that the Census Tract allocations of employment were revised because of problems with the methodology originally used to allocate *Projections 2002* employment to Census Tracts within cities. ABAG staff also indicated that employment totals for cities were not affected and should remain the same as the totals in the original data. (Analyses of the revised Census Tract allocations from ABAG show only small differences in employment totals for some cities as calculated for the revised Census Tract files compared to totals calculated for the original Census Tract files and totals in the ABAG *Projections 2002* publication.)

## **OAKLAND LAND USE DATA FOR TRANSPORTATION MODEL ANALYSES ARE NOT AFFECTED BY REVISED EMPLOYMENT ALLOCATIONS FROM ABAG**

### **Oakland Land Use Data in ACCMA Model are Based on Local Allocations, Not the ABAG Allocations**

The land use database for Oakland included in the ACCMA Travel Model was developed by the City of Oakland and its consultant, Hausrath Economics Group (HEG), and submitted to the ACCMA in January 2003 in response to the transmittal of preliminary land use data for city input and review prior to inclusion in the ACCMA's Travel Model 2002 (completed and released May 2003). Extensive work was done in Oakland to track and update growth assumptions and the locations of specific projects and development sites for use in the allocation of growth to traffic analysis zones (TAZs) throughout the city. Development projects, plans, and other changes were identified and updated based on input from City of Oakland and Port of Oakland staffs and on analysis of economic, demographic, and real estate market data and trends.

The land use database developed by the City of Oakland and submitted to the ACCMA for use in its Travel Model 2002 reflects the City's allocation of growth to Oakland TAZs based on extensive local information and analysis, as described above. The Oakland land use data are not based on the ABAG allocations of *Projections 2002* employment and households within the city. Although developed locally, the citywide totals for employment and households in Oakland are similar to and within one percent of the ABAG citywide totals for Oakland, as required by the ACCMA.

The recent revisions in ABAG's allocations of employment to Census Tracts within cities do not affect the Oakland employment data in the ACCMA model. That is because those data are not based on the original ABAG allocations of *Projections 2002* employment. The Oakland employment allocations are based on more extensive and in-depth local information and analysis than can be done across the region by ABAG.

### **Oakland Cumulative Growth Scenario Used in EIR Transportation Analyses is also Based on Local Allocations, Not the ABAG Allocations**

As described in Appendix D of the EIR, much of the cumulative analysis in the *Uptown EIR* assumes Oakland's cumulative growth scenario and land use database as updated for the *Uptown EIR* instead of the land use data in the ACCMA Model 2002. The updated cumulative growth scenario for Oakland builds on the land use database in the ACCMA model. Compared to the land use in that model, the cumulative growth scenario as updated for the *Uptown EIR* includes more specificity about the Uptown project and updated assumptions (through June 2003) for other development projects, primarily those in downtown Oakland surrounding the Uptown project. In addition, the totals for Oakland's cumulative growth scenario are not constrained to fall within one percent of the ABAG totals for Oakland, if higher projections are justified by recent and expected future development projects and other anticipated changes in land use, employment, and households/housing in Oakland. As described in Appendix D, the *Uptown EIR* growth scenario for Oakland is very similar to the projections and land use database in the ACCMA Model 2002, and slightly more

conservative, as total employment in Oakland under the Uptown scenario exceeds the ACCMA/ABAG total for 2025 by more than one percent.<sup>2</sup>

The allocation of employment in Oakland's cumulative growth scenario as updated for the *Uptown EIR* builds on that developed for the ACCMA model land use database. Differences reflect updated conditions through June 2003 as well as the location of some additional growth. Like the land use data in the ACCMA model, the employment data in Oakland's growth scenario are allocated to locations within the City based on extensive local information and analyses and not on the ABAG allocations of *Projections 2002* employment. Thus, the recent ABAG revisions to the allocations of employment within cities do not affect the Oakland employment data in the *Uptown EIR* cumulative growth scenario.

### **Communications With ACCMA Confirm that Oakland Land Use Data are Not Affected by Revised Employment Allocations from ABAG**

Communications with the ACCMA since the release of the revised ABAG employment allocations have confirmed that Oakland supplied the ACCMA with its own land use data for use in the Travel Model 2002, and that the Oakland data allocated employment and household growth within Oakland based on in-depth local information and analysis and not the ABAG *Projections 2002* allocations. Thus, the Oakland employment data in the ACCMA model are not being revised as a result of the recently revised employment allocations from ABAG.<sup>3</sup>

### **Validity of Oakland Land Use Data Supports Adequacy and Validity of EIR Transportation Analyses**

The results of the EIR transportation analyses and model forecasts are most sensitive to the land use data for Oakland. This is because of the location of the Uptown project in Oakland and the focus of the EIR transportation analyses on the Uptown Study Area including and surrounding the project. The study area is defined to include the proposed Project site and 40 study intersections in surrounding locations in Oakland (see pps. 85-88 of the *Draft EIR*). In addition, the transportation analysis also focuses on the regional and local street networks in Oakland that serve the Project site.

As the land use data for Oakland are based on in-depth local information and analyses and not the ABAG allocations (as described above), the recently revised employment allocations from ABAG do not affect the Oakland land use data in the ACCMA Model 2002 or in Oakland's cumulative growth scenario as updated for the *Uptown EIR*. The validity of the Oakland land use data supports the adequacy and validity of the EIR transportation analyses and forecasts, given the importance of the Oakland land use data to those analyses and their results.

The allocation of growth to TAZs in the Uptown Study Area is particularly important to the EIR transportation analysis because of the intersection and other localized analyses focused on assessing the impacts of the Project. The allocation of growth to TAZs outside the study area becomes less

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<sup>2</sup> Also see Response to Comment A2-2 for more explanation of the *Uptown EIR* growth scenario and of how it compares to other growth scenarios and projections.

<sup>3</sup> Communications with ACCMA staff (Jean Hart and Diane Stark) on November 3, 2003, November 4, 2003, and during the first part of December 2003. This is further confirmed in the December 22, 2003 letter from the ACCMA (Diane Stark) to the City of Oakland regarding ACCMA review of the revised *Projections 2002* employment allocations from ABAG.

important to the EIR analysis as the distance from the study area and Project site increases. Through the workings of the travel model, traffic from activity in areas outside of Oakland is combined onto major routes and freeways that may travel through the study area and affect the EIR forecasts and impact analyses. Because of this aggregation process, the allocation of activity to specific TAZs in areas outside of Oakland is much less important to the EIR transportation analysis than the allocation of activity to TAZs within the study area and the rest of Oakland. Since the detailed land use databases for Oakland TAZs are not affected by the ABAG revisions nor are the employment and population totals for jurisdictions outside of Oakland, the EIR's forecasts and analyses of impacts appear adequate. Further, they are not likely to be substantially affected by possible future changes in the allocations of employment to TAZs in other jurisdictions outside of Oakland as may result from ACCMA's current model review process. This issue is discussed further below.

### **Possible Revisions to Employment Allocations Outside of Oakland are not Anticipated to Substantially Change EIR Conclusions**

The ACCMA's current model review process could result in changes to the allocations of employment within other Alameda County cities outside of Oakland as a result of ABAG's recently revised employment allocations. However, such changes are not anticipated to substantially change the EIR conclusions drawn from the transportation model analyses for several reasons. First, as described above, the results of the EIR transportation analyses and model forecasts are most sensitive to the land use data for Oakland which are not affected by the changes in the ABAG data. Second, through the workings of the travel model, traffic from activity in other cities is incorporated into the EIR analyses focused on the Uptown Study Area, after having been aggregated onto streets, major routes, and freeways that may travel through the study area. Because employment totals for other cities have not been revised by ABAG, the *amount of traffic* associated with that employment also will not be affected. Possible changes in the allocation of employment in other cities, however, could affect the *allocation of associated traffic* to major routes and freeways, although such effects are moderated and can be negated by the model's aggregation process of combining traffic for numerous TAZs and Census Tracts onto a relatively limited number of major routes and freeways.<sup>4</sup> Third, although not anticipated to be substantial, the potential effects of possible changes in the allocation of employment in other cities are primarily associated with nearby communities that border Oakland, particularly the central areas of Oakland, including Emeryville, Piedmont, Alameda, and possibly Berkeley and San Leandro. Possible changes in the allocation of employment in other cities are much less likely to have effects on the *Uptown EIR* transportation forecasts and analyses because of their further distances from the study area.

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<sup>4</sup> The transportation model's process of combining traffic for different areas onto major routes could moderate or negate the effects of possible different allocations of employment and associated traffic in several ways. One is that by combining traffic from different smaller areas onto one or more major travel routes serving the larger area, the possible effects of different employment allocations to Census Tracts and TAZs can be negated if the traffic from those Census Tracts and TAZs ends up on the same routes regardless of where the employment is allocated. (In other words, less traffic for some TAZs can be offset by more traffic in other TAZs nearby.) Another is that by combining traffic from different areas onto major travel routes, differences in the allocation of traffic for one or more cities can be small when combined with the traffic from Oakland and other cities not affected by changes. This is particularly relevant because the Project site and Uptown Study Area are located in Oakland (which is not affected by the ABAG revisions), and because of Oakland's large size relative to its neighbors (which results in over 60 percent of the TAZs in the Inner East Bay being located in Oakland).



### **Considerations Relevant to Nearby Cities of Emeryville, Piedmont, and Alameda**

Although the ACCMA model review process is still underway, it is possible that there will be only limited or no changes in the allocations of employment in the nearby cities of Emeryville, Piedmont, and Alameda.

The City of Emeryville includes only one Census Tract within its boundaries. As a result, ABAG's revised allocations of employment to Census Tracts do not affect the allocation of employment in Emeryville. Thus, the revised ABAG employment allocations do not affect the land use data in the ACCMA model for Emeryville.

The City of Piedmont has very little employment within its borders, and includes only two Census Tracts. The City provided local inputs for the land use data currently in the ACCMA Model 2002 that substantially changed the employment allocations based on the original ABAG data. Thus, it is not anticipated that the recent ABAG revisions will affect the land use data in the ACCMA model for Piedmont.

Communication with the City of Alameda around the time that the ABAG revisions were released indicated that Alameda had provided local inputs for the land use data currently in the ACCMA Model 2002. As a result, City of Alameda staff did not anticipate that the revised ABAG data would require changes to the employment allocations in the land use database for Alameda. It also was noted by City of Alameda staff that the ABAG projections are considered to be conservative for analysis purposes by the City of Alameda, as they incorporate higher growth than anticipated locally, independent of where the employment is located.<sup>5</sup>

### **Considerations Relevant to Nearby Cities of Berkeley and San Leandro**

The ABAG revisions reflect changes in the allocation of employment within the cities of Berkeley and San Leandro that could affect the allocations of employment for those cities in the land use database in the ACCMA model once the current review process is completed.<sup>6</sup> Such changes in the allocation of employment could affect the allocation of traffic, resulting in more traffic in some locations and less traffic in other locations. Overall, the net effects on the results of the EIR transportation analysis are not anticipated to be substantial for all of the reasons described at the beginning of this subsection above. They include: the fact that the EIR analyses are most sensitive to the land use data for Oakland which are not affected by the changes in the ABAG data; the negating or moderating effects of the travel model's process of combining traffic for smaller areas onto major routes serving the larger area; and the fact that possible differences in the allocations of employment throughout Berkeley and San Leandro can occur in Census Tracts and TAZs that are a substantial distance from the Uptown Study Area that is the focus of the EIR impact analysis.

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<sup>5</sup> Communication with City of Alameda Planning Department staff (Andrew Thomas), November 5, 2003. Also see note 3 in Appendix D of the *Uptown EIR* regarding earlier communication with the City of Alameda.

<sup>6</sup> Per review of revised ABAG data by Hausrath Economics Group as of December 2003, and communication with ACCMA staff (Diane Stark) in early December.



## **APPENDIX A-2**

## **APPENDIX A-2 UPDATED CUMULATIVE LAND USE SCENARIO**

### **UPTOWN EIR IS MORE UP-TO-DATE AND MORE CONSERVATIVE THAN LUTE EIR**

Extensive work continues to be done in Oakland to update and refine the cumulative growth assumptions and land use database used for transportation modeling and impact analyses in Oakland EIRs. The updated cumulative growth scenario and land use database prepared for the *Uptown EIR* as of June 2003 incorporated the most current assumptions about growth and development in Oakland. The growth assumptions for the *Uptown EIR* analyses are more current and more conservative than those reflected by the ABAG projections for Oakland and included in the Alameda County CMA Travel Model. The *Uptown EIR* growth scenario and land use database also update the growth assumptions in the *Land Use and Transportation Element (LUTE) EIR* and provide a more conservative scenario with higher growth and development than the *LUTE EIR*.

The following summarizes the updated cumulative growth scenario and land use database developed for the *Uptown EIR*, drawing from the more detailed description in Appendix D of the EIR. It also compares the updated growth scenario to that from the *LUTE EIR*, highlighting the more up-to-date and more conservative basis for cumulative analysis in the *Uptown EIR*.

### **BACKGROUND ON NEED FOR CUMULATIVE GROWTH SCENARIO AND USE OF FORECAST-BASED APPROACH**

#### **Need for the Cumulative Growth Scenario**

The cumulative growth scenario for Oakland was developed and is updated primarily for use in the cumulative transportation analyses in Oakland EIRs. The growth scenario was originally prepared in 2000 after analyses indicated that the growth projections from ABAG as incorporated into the Alameda County Congestion Management Agency (CMA) travel demand model did not reflect the level of growth and development occurring in Oakland. Those projections also did not reflect the locations of growth for future development projects under construction, approved, proposed, and reasonably foreseeable for Oakland. Since the cumulative growth scenario for Oakland was originally developed, it continues to be updated and refined for EIR analyses and planning efforts, and to incorporate newly released 2000 Census data and new projections series from ABAG. The updated scenario prepared for the *Uptown Mixed-use Project EIR* represents the tenth version of the cumulative scenario.

Totals for the cumulative growth scenario for Oakland are now relatively similar to recent ABAG projections, as the Oakland data has provided input to ABAG. However, Oakland's cumulative growth scenario continues to be used in EIR analyses and planning efforts as it provides more specificity about growth and development occurring in Oakland and can be updated for specific EIR and planning purposes, as was done for the *Uptown EIR*.

## **Forecast-Based Approach that Incorporates Foreseeable Future Development Projects**

The cumulative growth scenario and land use database for Oakland is developed using a forecast-based approach, *i.e.*, an approach based on regional forecasts of economic activity and demographic trends. The cumulative growth scenario also considers recent and anticipated future development projects in Oakland as well as other changes in land use, employment, and population. Development projects and other changes are identified and updated based on input from City of Oakland and Port of Oakland staffs and on analysis of economic, demographic, and real estate market data and trends. Anticipated future development projects are identified and updated to include approved, proposed, and potential development projects reasonably foreseeable over the next 20 to 25 years.

The growth that could be accommodated by recent and expected future development projects and other changes in land use, employment, and population is evaluated within the context of regional economic and demographic trends and projections. The ABAG projections provide the reference for citywide and county totals for future years. The list of development projects and other changes provide the ability to relate individual projects to the citywide context. The amount of growth represented by development projects and other changes is “fit” within the ABAG projections, to the extent possible. Citywide totals are increased above the ABAG projections if justified by recent and expected future development projects and other anticipated changes. The locations of specific projects and development sites are used for the allocation of growth to subareas and traffic analysis zones (TAZs) within the city. (Transportation analyses using the CMA’s travel model require inputs at the TAZ level.)

## **UPDATED CUMULATIVE GROWTH SCENARIO**

### **Initial Work Leads to Decision to Update Scenario for Uptown EIR**

Early work for the *Uptown EIR* included review and comparison of the land use database used for the *General Plan LUTE EIR* with the more recent cumulative growth scenarios and land use databases for Oakland. Based on that review, the decision was made to complete a new growth scenario update specifically for the *Uptown EIR* and to complete a new cumulative transportation analysis using the updated growth scenario and land use database. Additional scope of work was undertaken to update the cumulative scenario to make sure that the growth and land use assumptions used for the *Uptown EIR* analyses incorporated the most current assumptions about growth and development in Oakland and the rest of the region. The analysis included particular attention to updating assumptions for growth and development in downtown Oakland, including the areas surrounding the Uptown Project.

### **Cumulative Growth Scenario for Uptown Project EIR**

The cumulative growth scenario for the City of Oakland, as developed and updated for the *Uptown Project EIR* is shown in Table 1. Appendix D in the EIR, “Cumulative Growth Scenario for Oakland As Prepared for Use in the *Uptown Project EIR*”, describes the scenario in more detail as well as the approach and assumptions used. The growth scenario uses a 2000 base year and future analysis years of 2010 and 2025, consistent with the analysis years in the Alameda County CMA travel model.

**Table 1: Updated Cumulative Growth Scenario for Oakland, as of June 2003**

	2000 <sup>a</sup>	2010	2025	Growth, 2000-2025
Households	150,790	158,910	169,010	+18,220
Household Population <sup>b</sup>	392,310	417,120	434,560	+42,250
Total Population <sup>b</sup>	399,480	425,550	443,200	+43,720
Employed Residents <sup>b</sup>	174,740	194,040	225,680	+50,940
Total Employment	185,160	215,050	247,500	+62,340
Manufacturing	17,810	18,470	20,120	+2,310
Other <sup>c</sup>	74,040	84,400	93,500	+19,460
Retail	23,720	27,440	30,700	+6,980
Service	69,590	84,740	103,180	+33,590

<sup>a</sup> Households, household population, total population, and employed residents are from the 2000 Census.

<sup>b</sup> Projections for 2010 and 2025 incorporate changes in demographic characteristics of the population in the existing housing stock in Oakland as evidenced in persons per household and employed persons per household factors from ABAG *Projections 2002*. The demographic characteristics of residents of new housing to be built in Oakland by 2010 and 2025 are based on those same ABAG factors or are estimated using special factors that better reflect the anticipated population in new housing, for TAZs with little or no housing in 2000 of the types being built (as the ABAG factors are based on the existing population in 2000).

<sup>c</sup> Includes employment in finance, insurance, real estate (FIRE); government; construction; transportation, communications, and utilities (TCU); wholesale; and agriculture and mining.

Source: Hausrath Economics Group based on approach and methodology described in Appendix D.

## Comparisons with LUTE EIR and CMA/ABAG Projections

Table 2 compares the *Uptown EIR* growth scenario for Oakland with the growth assumptions from the *LUTE EIR* and with the ABAG projections. As shown and described below, the *Uptown EIR* growth scenario provides the most up-to-date and most conservative scenario of future growth compared to the *LUTE EIR* scenario and the ABAG projections.

- **Comparison to LUTE EIR:** The growth assumptions for the *LUTE EIR* were derived from ABAG *Projections '96* and identified a base year of 1995 and growth through 2015. The *Uptown EIR* growth scenario uses a 2000 base year and extends further into the future, to 2025. In addition, the *Uptown EIR* scenario incorporates 2000 Census data released since the *LUTE EIR* was prepared, and current assumptions through June 2003 for recent and anticipated future growth and development in Oakland.

As shown in Table 2, the updated *Uptown EIR* cumulative scenario includes higher total employment (247,500 jobs compared to 208,836 jobs) and higher total households (169,010 households compared to 156,077 households) in Oakland compared to the *LUTE EIR* scenario. The *Uptown EIR* scenario also reflects higher rates of future growth in Oakland compared to the *LUTE EIR* scenario, for both employment and households.

- **Comparison to ABAG/CMA Projections:** The updated *Uptown EIR* cumulative scenario is similar to the ABAG *Projections 2002* for Oakland and the ABAG projections as incorporated into the Alameda County CMA travel model for use in EIR transportation analyses (identified as CMA/ABAG *P2002* in Table 2). As shown in Table 2, total households in Oakland are very similar under both the *Uptown EIR* scenario and the CMA/ABAG projections, while total employment for the *Uptown EIR* scenario is slightly higher than under the CMA/ABAG projections. More comparisons between the *Uptown EIR* scenario and the CMA/ABAG projections are provided in Appendix D in the *Uptown EIR*.

**Table 2: Comparison of Uptown EIR Growth Scenario, Lute EIR Growth Scenario, and ABAG Projections for City of Oakland**

	1990	1995	2000	2010	2015	2025
<b>Household Projections</b>						
ABAG Projections '96	144,520 <sup>a</sup>	144,030	146,400	151,080	153,110	-
General Plan/Lute EIR	-	<b>144,031</b>	-	-	<b>156,077</b>	-
ABAG Projections 2002	144,520 <sup>a</sup>	-	150,790 <sup>a</sup>	156,610	160,850	168,640
CMA/ABAG P2002 <sup>b</sup>	144,520 <sup>a</sup>	-	150,790 <sup>a</sup>	158,129 <sup>b</sup>	-	169,077 <sup>b</sup>
<b>Uptown EIR Scenario</b>	144,520 <sup>a</sup>	-	<b>150,790<sup>a</sup></b>	<b>158,910<sup>c</sup></b>	-	<b>169,010<sup>c</sup></b>
<b>Employment Projections</b>						
ABAG Projections '96	170,200	166,470	172,580	187,010	188,740	-
<b>General Plan/LUTE EIR</b>	-	<b>166,490</b>	-	-	<b>208,836</b>	-
ABAG Projections 2002	178,340	-	193,950	215,580	228,380	243,500
CMA/ABAG P2002 <sup>b</sup>	173,273	-	185,160	213,820 <sup>b</sup>	-	245,060 <sup>b</sup>
<b>Uptown EIR Scenario</b>	173,273	-	<b>185,160</b>	<b>215,050<sup>c</sup></b>	-	<b>247,500<sup>c</sup></b>

<sup>a</sup> U.S. Census.

<sup>b</sup> Projections in the Alameda County CMA travel model as of May 2003; future year totals are controlled to within 1 percent of citywide totals from ABAG Projections 2002, per CMA direction.

<sup>c</sup> Developed and updated for Uptown EIR cumulative analyses as of June 2003, by Hausrath Economics Group working closely with City staff.

Source: Hausrath Economics Group

## **APPENDIX B-1**



## APPENDIX B-1



155 Grand Avenue, Suite 400  
Oakland, California 94612  
510-763-2929  
Fax 510-834-5220

OAKLAND • LOS ANGELES • SACRAMENTO • SAN JOSE • SAN BERNARDINO • SALT LAKE CITY

**TO:** Adam Weinstein  
**FROM:** Bob Toothman  
Scott Arganek  
**DATE:** December 16, 2003  
**SUBJECT:** Oakland Uptown Project  
Sanitary Sewers - Wet Weather Capacity

**PROJECT NO.** 803057X0

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Sewage capacity within the EBMUD system, including both hydraulic capacity and treatment capacity, is allocated among the communities and agencies that deliver sewage to EBMUD. The entity delivering sewage to EBMUD can use this capacity allocation in any way that they want as long as the capacity allocation for a sub-basin is not exceeded. In the case of the Uptown Project, the sub-basin allocation is controlled by the Oakland Public Works Agency. The availability of sub-basin capacity is determined by the City within their existing agreement with EBMUD and is not based on the overall capacity of the treatment plant. I verified this information with Maura Bonarens of EBMUD by telephone on 11/17/03.

Our sewer capacity calculations for the project area are included in this transmittal. This information was transmitted to Gus Amerzheni of DPW In August. I re-sent the information to him in November. He subsequently sent me an e-mail dated November 17 indicating that adequate capacity exists within the sub-basin to accommodate wet weather flows. The e-mail is included in this transmittal. Gus indicates that adequate capacity exists within the system to handle the proposed project flows, and agrees that our on-site configuration also has adequate capacity. It is my understanding that this is the only determination that needs to be made, and is also the only determination that is relevant to our project. EBMUD does not make this determination. Adequate capacity is available for our project.

Please call me if you have questions.

**From:** Robert Toothman [rtoothman@Korve.com]  
**Sent:** Tuesday, November 18, 2003 9:01 AM  
**To:** 'Adam Weinstein'; Scott Arganek  
**Subject:** FW: Oakland Uptown

Gus's response confirming the availability of sanitary sewer capacity is attached. We have adequate capacity. There is an existing manhole at our proposed point of connection. This should resolve sanitary sewer questions.

-----Original Message-----

**From:** Amirzehni, Gus [mailto:gamirzehni@oaklandnet.com]  
**Sent:** Monday, November 17, 2003 4:42 PM  
**To:** 'Robert Toothman'  
**Cc:** Sweiss, Fuad; Uzegbu, Marcel  
**Subject:** RE: Oakland Uptown

Bob,

Here are my comments re sewer capacity for the Oakland Uptown project.

1. The existing sewer in 20th Street between Telegraph and San Pablo is a 5' brick sewer, lined with PVC lining system. Any connection to this system should be made via an existing manhole. No direct connection to this line will be allowed.
2. Based on your attached SS loads and proposed connection configuration to the existing sewer in 20th Street, there is enough capacity in the system to handle the proposed project.
3. This email pertains only to sewer capacity, as you requested over the phone, and is not a complete EIR review comments.

---

Gus Amirzehni, P.E.

Engineering Division  
Public Works Agency  
510.238.6601 (Tel) 510.238-7227 (Fax)  
250 Frank H. Ogawa Plaza, Suite 4314  
Oakland, CA 94612-2033

-----Original Message-----

**From:** Robert Toothman [mailto:rtoothman@Korve.com]  
**Sent:** Monday, November 17, 2003 10:48 AM  
**To:** 'gamirzehni@oaklandnet.com'  
**Cc:** Scott Arganek  
**Subject:** FW: Oakland Uptown

Gus,

A copy of my email from last August with the loads and hydraulic calculations for the Oakland Uptown Project are attached. These are the most recent calculations. The point of connection to the DPW system will be to an existing 5 foot diameter brick sewer in 20<sup>th</sup> Street between Telegraph and San Pablo. This sewer runs down 20<sup>th</sup> and turns north on San Pablo.

We appreciate your help completing our EIR response. Please call me if you need any additional information, or if we need a meeting to resolve this matter.

Thanks,

Bob Toothman  
(510) 622-6607

-----Original Message-----

**From:** Robert Toothman  
**Sent:** Monday, August 18, 2003 2:31 PM  
**To:** 'gamirzehni@oaklandnet.com'

**Cc:** Scott Arganek; Brandon Whitehurst

**Subject:** Oakland Uptown

Gus,

The revised sewage and hydraulic calculations for the Oakland Uptown Project are attached. Please note that there are two spreadsheets, the demands are on sheet one and the hydraulics are on sheet two. My apologies for not getting this to you last week - we had some internal confusion about who was going to send it. I will call you tomorrow to set up a time when we can meet and discuss.

Thanks,

Bob Toothman

## **APPENDIX B-2**

## APPENDIX B-2

### Appendix B-2 Oakland Uptown Project

#### Sanitary Sewage Loads

August 14, 2003

Parcel	Land Use	Density		Units	Sq. Ft	Persons	Wastewater Demand	Average Sanitary Discharge	Peak Factor	Peak Sanitary Discharge	Maximum Discharge - Includes Inflow and Infiltration	Maximum Discharge
				#			gpd/Person	gpd		gpd	cfs	
1	Apartments	2.25	persons/du	190	-	428	100	42,750	1.80	76,950	307,800	0.48
2	Apartments	2.25	persons/du	190	-	428	100	42,750	1.80	76,950	307,800	0.48
3	Apartments	2.25	persons/du	250	-	563	100	56,250	1.80	101,250	405,000	0.63
4	Apartments	2.25	persons/du	225	-	506	100	50,625	1.80	91,125	364,500	0.56
5	Condominiums	2.25	persons/du	270		608	100	60,750	1.80	109,350	437,400	0.68
6	Apartments	2.25	persons/du	145	-	326	100	32,625	1.80	58,725	260,000	0.40
7	Student Beds	1	person/du	1000	-	1000	100	100,000	1.80	180,000	720,000	1.11
	Faculty Units	1	person/du	50	-	50	100	5,000	1.80	9,000	36,000	0.06
8	Commercial	450	sf/employee	-	5000	11	100	1,111	1.80	2,000	8,000	0.01
9	Commercial	450	sf/employee	-	10000	22	100	2,222	1.80	4,000	16,000	0.02
Total Project				2320	15000	3941	1000	394083		709,350	2,862,500	4.43

Notes:

- 1 Land use, number of dwelling units, and floor areas from draft EIR
- 2 2.25 average persons per dwelling unit and 450 square feet per employee based on current City and County of San Francisco assumptions for Hunters Point Redevelopment project
- 3 100 gpd/person based on current City and County of San Francisco assumptions for Hunters Point Redevelopment project
- 4 Discharge including inflow/infiltration is four times peak sanitary discharge

## **APPENDIX B-3**

## APPENDIX B-3

<b>Appendix B-3 Oakland Uptown Project Water Demands December 17, 2003</b>	
<b>Domestic Water Demand</b>	
Demand Rate (Gallons per Capita per Day):	125
Persons per Dwelling Unit:	2.35
Dwelling Units:	1120
Average Daily Demand (Gallons per Day):	329,000
Average Daily demand (GPM):	228
Average Daily demand (CFS):	0.51
Peaking Flow Factor:	1.6
Peak Domestic Water Demand (GPM)	366
Peak Domestic Water Demand (CFS)	0.81
<b>Required Fire Flows</b>	
Minimum Fire Flow, Residential, (GPM)	TBD
Minimum Fire Flow, Commercial, (GPM)	TBD
Minimum Fire Flow, Commercial, (CFS)	TBD
<b>Maximum Water Demand (GPM)</b>	<b>TBD</b>
<b>Maximum Water Demand (CFS)</b>	<b>TBD</b>

**Notes:**

1. Maximum water demand is the sum of peak domestic demand and fire flow requirements.
2. Average Daily Sewage Flow = 85% Average Daily Water Demand.
3. Fire flows are subject to negotiations with the Fire Department and are To Be Determined
4. The adequacy of the existing system to meet maximum demands will be determined by EBMUD based on the peak domestic demand indicated and the fire flow demand.
5. The proposed development will be served by existing off-site 8 inch water mains in San Pablo Avenue and Telegraph Avenue. New 8 inch water mains are proposed in 19th Street and William Street.
6. The existing off-site water system supplying the development appears to have adequate capacity to meet the indicated demands. Some improvements to the existing off-site system may be required due to the age and condition of the existing system. Preliminary discussions with EBMUD indicate that adequate water will be made available for the development (Brandon whitehurst communication with EBMUD).

# UPTOWN MIXED USE PROJECT

## RESPONSES TO COMMENTS DOCUMENT

STATE CLEARINGHOUSE NO. 200052070

LSA

January 2004



# UPTOWN MIXED USE PROJECT

## RESPONSES TO COMMENTS DOCUMENT

STATE CLEARINGHOUSE NO. 200052070

Submitted to the:

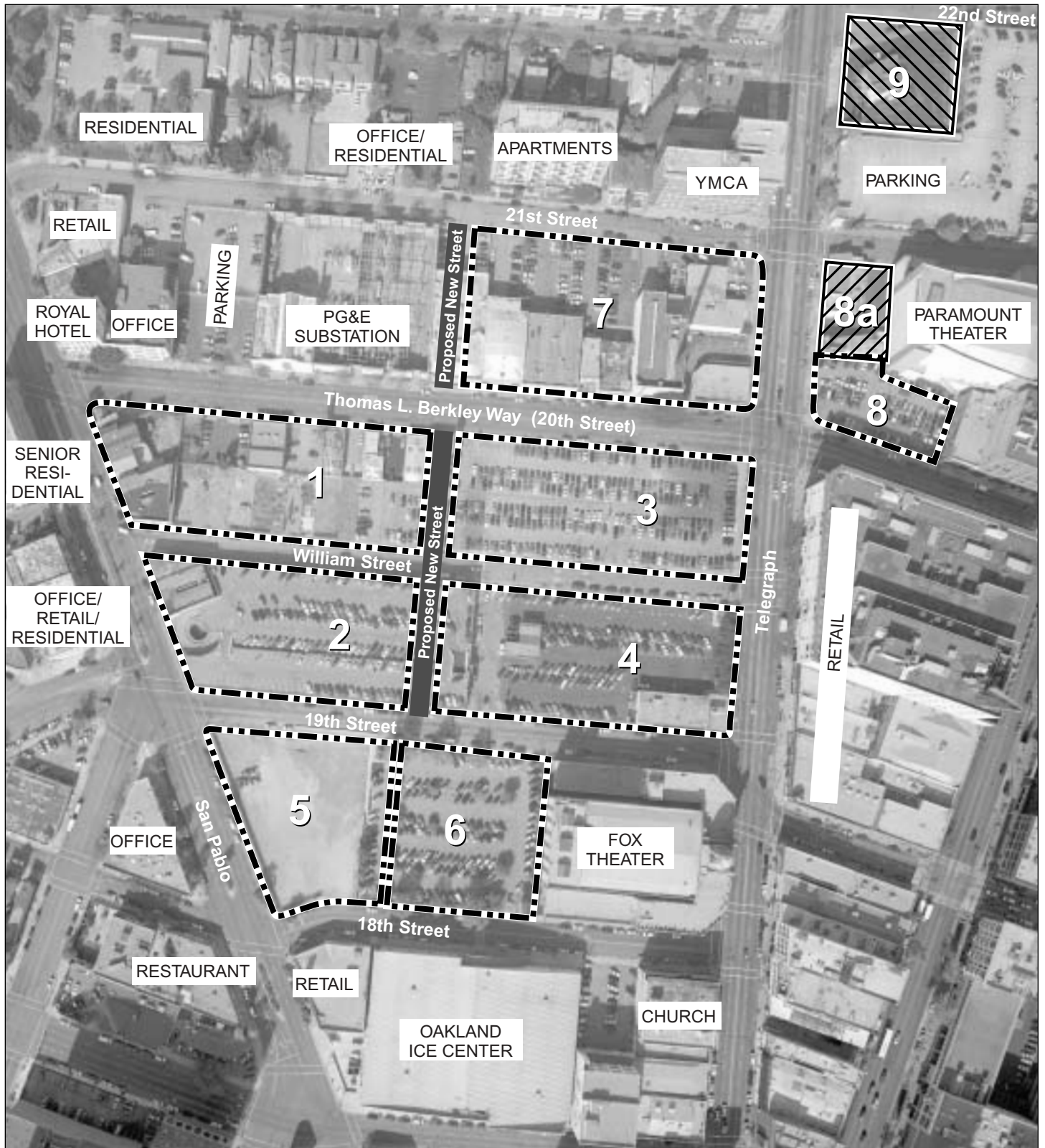
City of Oakland  
Community and Economic Development Agency  
250 Frank H. Ogawa Plaza  
Suite 3330  
Oakland, CA 94612

Prepared by:

LSA Associates, Inc.  
2215 Fifth Street  
Berkeley, CA 94710  
(510) 540-7331

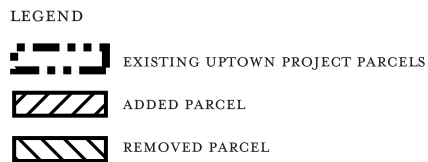
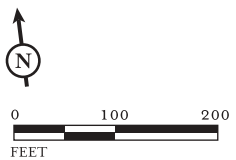
LSA

January 2004

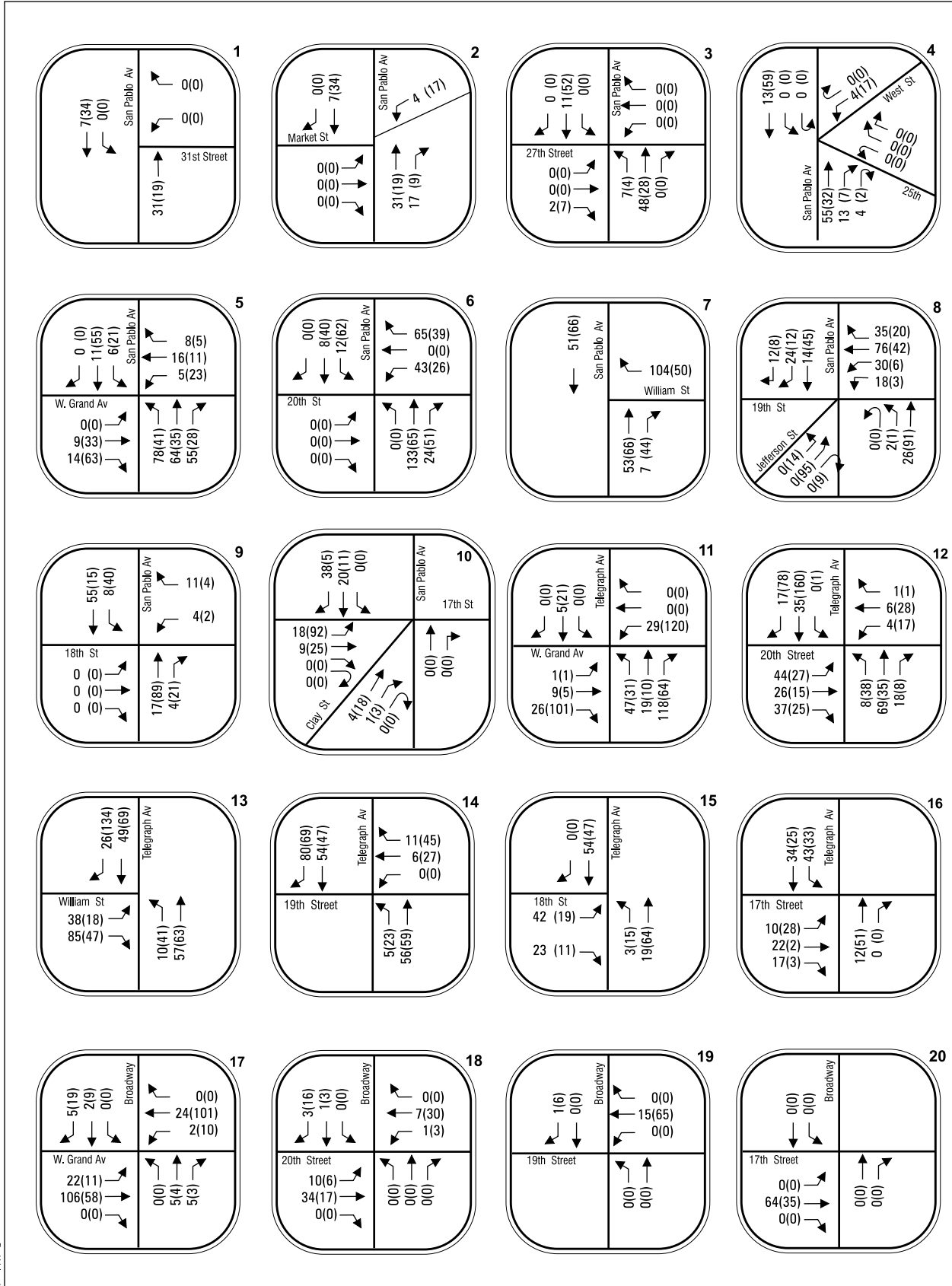


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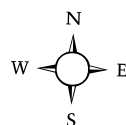
FIGURE 1



Revisions to the  
Uptown Mixed Use Project  
Changes to the Project Site



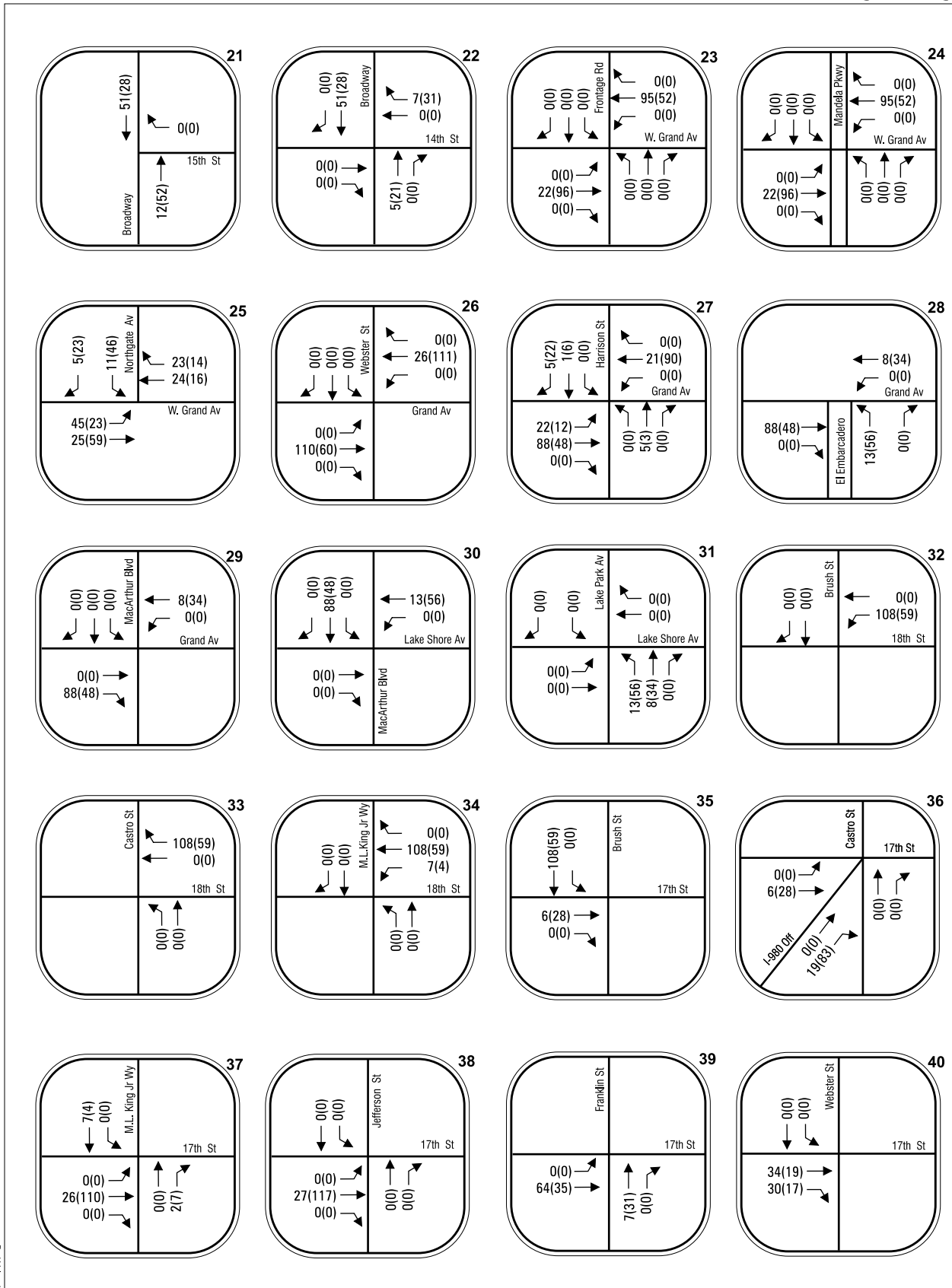
Source: Korve Engineering, 2003



OAKLAND UPTOWN

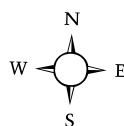
**Figure 4A**

**PROJECT TRAFFIC VOLUMES  
AM (PM) Peak Hour**



Proj. Vols. 2003

Source: Korve Engineering, 2003



OAKLAND UPTOWN

**Figure 4B**

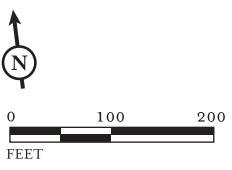
**PROJECT TRAFFIC VOLUMES  
AM (PM) Peak Hour**





LSA

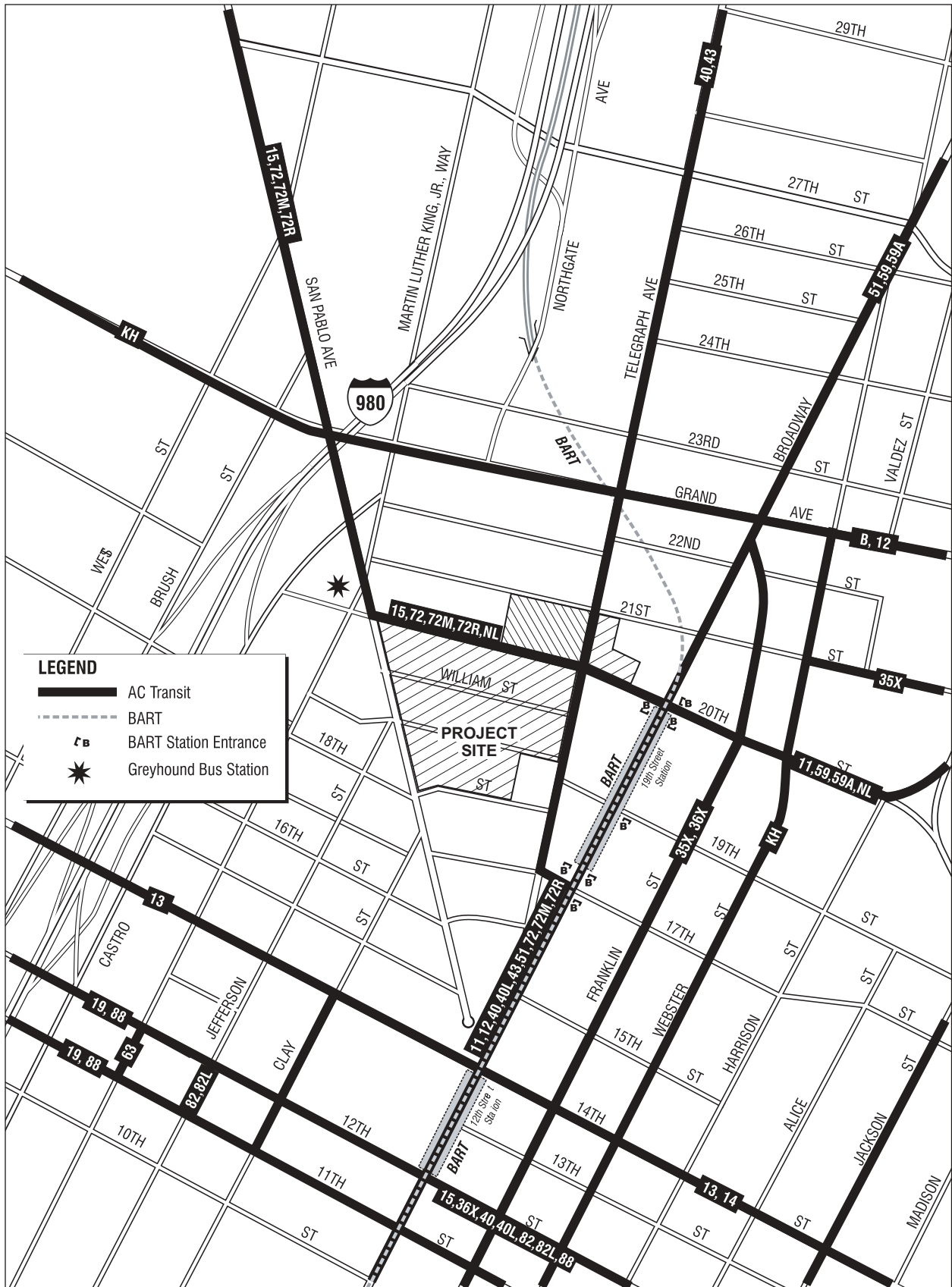
FIGURE III-3

*Uptown Mixed Use Project EIR*  
Proposed Demolition







- LEGEND
-  PROPOSED DEMOLITION OR RELOCATION
  -  POTENTIAL DEMOLITION





**LEGEND**

-  AC Transit
-  BART
-  BART Station Entrance
-  Greyhound Bus Station

LSA

FIGURE IV.D-3



SERVICE AS OF DECEMBER 2003

*Uptown Mixed Use Project EIR  
Existing Transit Network*

SOURCE: KORVE ENGINEERING, 2003

I:\IMAGES\GRAPHICS\JOBS\FCR230 UPTOWN\FIGURES\FIG\_IVD3.AI (12/17/03)

## APPENDIX A-1

### **REVISIONS TO ABAG EMPLOYMENT ALLOCATIONS ARE NOT ANTICIPATED TO SUBSTANTIALLY CHANGE EIR CONCLUSIONS FROM TRANSPORTATION MODEL ANALYSES**

This response addresses the concerns raised about the effects of the recently revised ABAG employment allocations on the results of the transportation analyses in the *Uptown Mixed-use Project EIR*. The text that follows responds to those concerns and makes three main points. First, the response explains that the recently identified inaccuracies in the original ABAG employment allocations do not affect the land use data for Oakland as the allocations of Oakland employment are not based on the ABAG data. Second, the validity of the Oakland land use data supports the adequacy and validity of the EIR transportation analyses and forecasts given the importance of the Oakland land use data to those analyses and their results. Third, the response goes on to explain that possible revisions to the allocations of employment in other cities in Alameda County outside of the EIR study area are not anticipated to substantially change the EIR conclusions drawn from the recent transportation model analyses.

### **ACCMA REVIEW OF MODEL LAND USE DATA IS CURRENTLY UNDERWAY IN LIGHT OF RECENTLY REVISED EMPLOYMENT ALLOCATIONS FROM ABAG**

Since the transportation analysis for the *Uptown EIR* was completed, the Association of Bay Area Governments (ABAG) found problems with its allocations of *Projections 2002* employment data to Census Tracts within cities in the region, and recently issued revised employment allocations. Citywide employment totals for jurisdictions remain the same as those originally provided by ABAG.<sup>1</sup> The *Projections 2002* household and population totals for jurisdictions and the allocations of households and population to Census Tracts within jurisdictions remain unchanged and are not affected by the recent ABAG revisions to the allocations of employment. The Alameda County Congestion Management Agency (ACCMA) is currently in the process of reviewing the employment data in the ACCMA model and revising the employment allocations in the model for those situations affected by the ABAG revisions.

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<sup>1</sup> Per communications with ABAG staff on October 23, 2003 (Hing Wong) and November 3, 2003 (Brian Kirking). Conversations with ABAG staff indicated that the Census Tract allocations of employment were revised because of problems with the methodology originally used to allocate *Projections 2002* employment to Census Tracts within cities. ABAG staff also indicated that employment totals for cities were not affected and should remain the same as the totals in the original data. (Analyses of the revised Census Tract allocations from ABAG show only small differences in employment totals for some cities as calculated for the revised Census Tract files compared to totals calculated for the original Census Tract files and totals in the ABAG *Projections 2002* publication.)

## **OAKLAND LAND USE DATA FOR TRANSPORTATION MODEL ANALYSES ARE NOT AFFECTED BY REVISED EMPLOYMENT ALLOCATIONS FROM ABAG**

### **Oakland Land Use Data in ACCMA Model are Based on Local Allocations, Not the ABAG Allocations**

The land use database for Oakland included in the ACCMA Travel Model was developed by the City of Oakland and its consultant, Hausrath Economics Group (HEG), and submitted to the ACCMA in January 2003 in response to the transmittal of preliminary land use data for city input and review prior to inclusion in the ACCMA's Travel Model 2002 (completed and released May 2003). Extensive work was done in Oakland to track and update growth assumptions and the locations of specific projects and development sites for use in the allocation of growth to traffic analysis zones (TAZs) throughout the city. Development projects, plans, and other changes were identified and updated based on input from City of Oakland and Port of Oakland staffs and on analysis of economic, demographic, and real estate market data and trends.

The land use database developed by the City of Oakland and submitted to the ACCMA for use in its Travel Model 2002 reflects the City's allocation of growth to Oakland TAZs based on extensive local information and analysis, as described above. The Oakland land use data are not based on the ABAG allocations of *Projections 2002* employment and households within the city. Although developed locally, the citywide totals for employment and households in Oakland are similar to and within one percent of the ABAG citywide totals for Oakland, as required by the ACCMA.

The recent revisions in ABAG's allocations of employment to Census Tracts within cities do not affect the Oakland employment data in the ACCMA model. That is because those data are not based on the original ABAG allocations of *Projections 2002* employment. The Oakland employment allocations are based on more extensive and in-depth local information and analysis than can be done across the region by ABAG.

### **Oakland Cumulative Growth Scenario Used in EIR Transportation Analyses is also Based on Local Allocations, Not the ABAG Allocations**

As described in Appendix D of the EIR, much of the cumulative analysis in the *Uptown EIR* assumes Oakland's cumulative growth scenario and land use database as updated for the *Uptown EIR* instead of the land use data in the ACCMA Model 2002. The updated cumulative growth scenario for Oakland builds on the land use database in the ACCMA model. Compared to the land use in that model, the cumulative growth scenario as updated for the *Uptown EIR* includes more specificity about the Uptown project and updated assumptions (through June 2003) for other development projects, primarily those in downtown Oakland surrounding the Uptown project. In addition, the totals for Oakland's cumulative growth scenario are not constrained to fall within one percent of the ABAG totals for Oakland, if higher projections are justified by recent and expected future development projects and other anticipated changes in land use, employment, and households/housing in Oakland. As described in Appendix D, the *Uptown EIR* growth scenario for Oakland is very similar to the projections and land use database in the ACCMA Model 2002, and slightly more



conservative, as total employment in Oakland under the Uptown scenario exceeds the ACCMA/ABAG total for 2025 by more than one percent.<sup>2</sup>

The allocation of employment in Oakland's cumulative growth scenario as updated for the *Uptown EIR* builds on that developed for the ACCMA model land use database. Differences reflect updated conditions through June 2003 as well as the location of some additional growth. Like the land use data in the ACCMA model, the employment data in Oakland's growth scenario are allocated to locations within the City based on extensive local information and analyses and not on the ABAG allocations of *Projections 2002* employment. Thus, the recent ABAG revisions to the allocations of employment within cities do not affect the Oakland employment data in the *Uptown EIR* cumulative growth scenario.

### **Communications With ACCMA Confirm that Oakland Land Use Data are Not Affected by Revised Employment Allocations from ABAG**

Communications with the ACCMA since the release of the revised ABAG employment allocations have confirmed that Oakland supplied the ACCMA with its own land use data for use in the Travel Model 2002, and that the Oakland data allocated employment and household growth within Oakland based on in-depth local information and analysis and not the ABAG *Projections 2002* allocations. Thus, the Oakland employment data in the ACCMA model are not being revised as a result of the recently revised employment allocations from ABAG.<sup>3</sup>

### **Validity of Oakland Land Use Data Supports Adequacy and Validity of EIR Transportation Analyses**

The results of the EIR transportation analyses and model forecasts are most sensitive to the land use data for Oakland. This is because of the location of the Uptown project in Oakland and the focus of the EIR transportation analyses on the Uptown Study Area including and surrounding the project. The study area is defined to include the proposed Project site and 40 study intersections in surrounding locations in Oakland (see pps. 85-88 of the *Draft EIR*). In addition, the transportation analysis also focuses on the regional and local street networks in Oakland that serve the Project site.

As the land use data for Oakland are based on in-depth local information and analyses and not the ABAG allocations (as described above), the recently revised employment allocations from ABAG do not affect the Oakland land use data in the ACCMA Model 2002 or in Oakland's cumulative growth scenario as updated for the *Uptown EIR*. The validity of the Oakland land use data supports the adequacy and validity of the EIR transportation analyses and forecasts, given the importance of the Oakland land use data to those analyses and their results.

The allocation of growth to TAZs in the Uptown Study Area is particularly important to the EIR transportation analysis because of the intersection and other localized analyses focused on assessing the impacts of the Project. The allocation of growth to TAZs outside the study area becomes less

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<sup>2</sup> Also see Response to Comment A2-2 for more explanation of the *Uptown EIR* growth scenario and of how it compares to other growth scenarios and projections.

<sup>3</sup> Communications with ACCMA staff (Jean Hart and Diane Stark) on November 3, 2003, November 4, 2003, and during the first part of December 2003. This is further confirmed in the December 22, 2003 letter from the ACCMA (Diane Stark) to the City of Oakland regarding ACCMA review of the revised *Projections 2002* employment allocations from ABAG.

important to the EIR analysis as the distance from the study area and Project site increases. Through the workings of the travel model, traffic from activity in areas outside of Oakland is combined onto major routes and freeways that may travel through the study area and affect the EIR forecasts and impact analyses. Because of this aggregation process, the allocation of activity to specific TAZs in areas outside of Oakland is much less important to the EIR transportation analysis than the allocation of activity to TAZs within the study area and the rest of Oakland. Since the detailed land use databases for Oakland TAZs are not affected by the ABAG revisions nor are the employment and population totals for jurisdictions outside of Oakland, the EIR's forecasts and analyses of impacts appear adequate. Further, they are not likely to be substantially affected by possible future changes in the allocations of employment to TAZs in other jurisdictions outside of Oakland as may result from ACCMA's current model review process. This issue is discussed further below.

### **Possible Revisions to Employment Allocations Outside of Oakland are not Anticipated to Substantially Change EIR Conclusions**

The ACCMA's current model review process could result in changes to the allocations of employment within other Alameda County cities outside of Oakland as a result of ABAG's recently revised employment allocations. However, such changes are not anticipated to substantially change the EIR conclusions drawn from the transportation model analyses for several reasons. First, as described above, the results of the EIR transportation analyses and model forecasts are most sensitive to the land use data for Oakland which are not affected by the changes in the ABAG data. Second, through the workings of the travel model, traffic from activity in other cities is incorporated into the EIR analyses focused on the Uptown Study Area, after having been aggregated onto streets, major routes, and freeways that may travel through the study area. Because employment totals for other cities have not been revised by ABAG, the *amount of traffic* associated with that employment also will not be affected. Possible changes in the allocation of employment in other cities, however, could affect the *allocation of associated traffic* to major routes and freeways, although such effects are moderated and can be negated by the model's aggregation process of combining traffic for numerous TAZs and Census Tracts onto a relatively limited number of major routes and freeways.<sup>4</sup> Third, although not anticipated to be substantial, the potential effects of possible changes in the allocation of employment in other cities are primarily associated with nearby communities that border Oakland, particularly the central areas of Oakland, including Emeryville, Piedmont, Alameda, and possibly Berkeley and San Leandro. Possible changes in the allocation of employment in other cities are much less likely to have effects on the *Uptown EIR* transportation forecasts and analyses because of their further distances from the study area.

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<sup>4</sup> The transportation model's process of combining traffic for different areas onto major routes could moderate or negate the effects of possible different allocations of employment and associated traffic in several ways. One is that by combining traffic from different smaller areas onto one or more major travel routes serving the larger area, the possible effects of different employment allocations to Census Tracts and TAZs can be negated if the traffic from those Census Tracts and TAZs ends up on the same routes regardless of where the employment is allocated. (In other words, less traffic for some TAZs can be offset by more traffic in other TAZs nearby.) Another is that by combining traffic from different areas onto major travel routes, differences in the allocation of traffic for one or more cities can be small when combined with the traffic from Oakland and other cities not affected by changes. This is particularly relevant because the Project site and Uptown Study Area are located in Oakland (which is not affected by the ABAG revisions), and because of Oakland's large size relative to its neighbors (which results in over 60 percent of the TAZs in the Inner East Bay being located in Oakland).

### **Considerations Relevant to Nearby Cities of Emeryville, Piedmont, and Alameda**

Although the ACCMA model review process is still underway, it is possible that there will be only limited or no changes in the allocations of employment in the nearby cities of Emeryville, Piedmont, and Alameda.

The City of Emeryville includes only one Census Tract within its boundaries. As a result, ABAG's revised allocations of employment to Census Tracts do not affect the allocation of employment in Emeryville. Thus, the revised ABAG employment allocations do not affect the land use data in the ACCMA model for Emeryville.

The City of Piedmont has very little employment within its borders, and includes only two Census Tracts. The City provided local inputs for the land use data currently in the ACCMA Model 2002 that substantially changed the employment allocations based on the original ABAG data. Thus, it is not anticipated that the recent ABAG revisions will affect the land use data in the ACCMA model for Piedmont.

Communication with the City of Alameda around the time that the ABAG revisions were released indicated that Alameda had provided local inputs for the land use data currently in the ACCMA Model 2002. As a result, City of Alameda staff did not anticipate that the revised ABAG data would require changes to the employment allocations in the land use database for Alameda. It also was noted by City of Alameda staff that the ABAG projections are considered to be conservative for analysis purposes by the City of Alameda, as they incorporate higher growth than anticipated locally, independent of where the employment is located.<sup>5</sup>

### **Considerations Relevant to Nearby Cities of Berkeley and San Leandro**

The ABAG revisions reflect changes in the allocation of employment within the cities of Berkeley and San Leandro that could affect the allocations of employment for those cities in the land use database in the ACCMA model once the current review process is completed.<sup>6</sup> Such changes in the allocation of employment could affect the allocation of traffic, resulting in more traffic in some locations and less traffic in other locations. Overall, the net effects on the results of the EIR transportation analysis are not anticipated to be substantial for all of the reasons described at the beginning of this subsection above. They include: the fact that the EIR analyses are most sensitive to the land use data for Oakland which are not affected by the changes in the ABAG data; the negating or moderating effects of the travel model's process of combining traffic for smaller areas onto major routes serving the larger area; and the fact that possible differences in the allocations of employment throughout Berkeley and San Leandro can occur in Census Tracts and TAZs that are a substantial distance from the Uptown Study Area that is the focus of the EIR impact analysis.

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<sup>5</sup> Communication with City of Alameda Planning Department staff (Andrew Thomas), November 5, 2003. Also see note 3 in Appendix D of the *Uptown EIR* regarding earlier communication with the City of Alameda.

<sup>6</sup> Per review of revised ABAG data by Hausrath Economics Group as of December 2003, and communication with ACCMA staff (Diane Stark) in early December.



## **APPENDIX A-2 UPDATED CUMULATIVE LAND USE SCENARIO**

### **UPTOWN EIR IS MORE UP-TO-DATE AND MORE CONSERVATIVE THAN LUTE EIR**

Extensive work continues to be done in Oakland to update and refine the cumulative growth assumptions and land use database used for transportation modeling and impact analyses in Oakland EIRs. The updated cumulative growth scenario and land use database prepared for the *Uptown EIR* as of June 2003 incorporated the most current assumptions about growth and development in Oakland. The growth assumptions for the *Uptown EIR* analyses are more current and more conservative than those reflected by the ABAG projections for Oakland and included in the Alameda County CMA Travel Model. The *Uptown EIR* growth scenario and land use database also update the growth assumptions in the *Land Use and Transportation Element (LUTE) EIR* and provide a more conservative scenario with higher growth and development than the *LUTE EIR*.

The following summarizes the updated cumulative growth scenario and land use database developed for the *Uptown EIR*, drawing from the more detailed description in Appendix D of the EIR. It also compares the updated growth scenario to that from the *LUTE EIR*, highlighting the more up-to-date and more conservative basis for cumulative analysis in the *Uptown EIR*.

### **BACKGROUND ON NEED FOR CUMULATIVE GROWTH SCENARIO AND USE OF FORECAST-BASED APPROACH**

#### **Need for the Cumulative Growth Scenario**

The cumulative growth scenario for Oakland was developed and is updated primarily for use in the cumulative transportation analyses in Oakland EIRs. The growth scenario was originally prepared in 2000 after analyses indicated that the growth projections from ABAG as incorporated into the Alameda County Congestion Management Agency (CMA) travel demand model did not reflect the level of growth and development occurring in Oakland. Those projections also did not reflect the locations of growth for future development projects under construction, approved, proposed, and reasonably foreseeable for Oakland. Since the cumulative growth scenario for Oakland was originally developed, it continues to be updated and refined for EIR analyses and planning efforts, and to incorporate newly released 2000 Census data and new projections series from ABAG. The updated scenario prepared for the *Uptown Mixed-use Project EIR* represents the tenth version of the cumulative scenario.

Totals for the cumulative growth scenario for Oakland are now relatively similar to recent ABAG projections, as the Oakland data has provided input to ABAG. However, Oakland's cumulative growth scenario continues to be used in EIR analyses and planning efforts as it provides more specificity about growth and development occurring in Oakland and can be updated for specific EIR and planning purposes, as was done for the *Uptown EIR*.

## **Forecast-Based Approach that Incorporates Foreseeable Future Development Projects**

The cumulative growth scenario and land use database for Oakland is developed using a forecast-based approach, *i.e.*, an approach based on regional forecasts of economic activity and demographic trends. The cumulative growth scenario also considers recent and anticipated future development projects in Oakland as well as other changes in land use, employment, and population. Development projects and other changes are identified and updated based on input from City of Oakland and Port of Oakland staffs and on analysis of economic, demographic, and real estate market data and trends. Anticipated future development projects are identified and updated to include approved, proposed, and potential development projects reasonably foreseeable over the next 20 to 25 years.

The growth that could be accommodated by recent and expected future development projects and other changes in land use, employment, and population is evaluated within the context of regional economic and demographic trends and projections. The ABAG projections provide the reference for citywide and county totals for future years. The list of development projects and other changes provide the ability to relate individual projects to the citywide context. The amount of growth represented by development projects and other changes is “fit” within the ABAG projections, to the extent possible. Citywide totals are increased above the ABAG projections if justified by recent and expected future development projects and other anticipated changes. The locations of specific projects and development sites are used for the allocation of growth to subareas and traffic analysis zones (TAZs) within the city. (Transportation analyses using the CMA’s travel model require inputs at the TAZ level.)

## **UPDATED CUMULATIVE GROWTH SCENARIO**

### **Initial Work Leads to Decision to Update Scenario for Uptown EIR**

Early work for the *Uptown EIR* included review and comparison of the land use database used for the *General Plan LUTE EIR* with the more recent cumulative growth scenarios and land use databases for Oakland. Based on that review, the decision was made to complete a new growth scenario update specifically for the *Uptown EIR* and to complete a new cumulative transportation analysis using the updated growth scenario and land use database. Additional scope of work was undertaken to update the cumulative scenario to make sure that the growth and land use assumptions used for the *Uptown EIR* analyses incorporated the most current assumptions about growth and development in Oakland and the rest of the region. The analysis included particular attention to updating assumptions for growth and development in downtown Oakland, including the areas surrounding the Uptown Project.

### **Cumulative Growth Scenario for Uptown Project EIR**

The cumulative growth scenario for the City of Oakland, as developed and updated for the *Uptown Project EIR* is shown in Table 1. Appendix D in the EIR, “Cumulative Growth Scenario for Oakland As Prepared for Use in the *Uptown Project EIR*”, describes the scenario in more detail as well as the approach and assumptions used. The growth scenario uses a 2000 base year and future analysis years of 2010 and 2025, consistent with the analysis years in the Alameda County CMA travel model.

**Table 1: Updated Cumulative Growth Scenario for Oakland, as of June 2003**

	2000 <sup>a</sup>	2010	2025	Growth, 2000-2025
Households	150,790	158,910	169,010	+18,220
Household Population <sup>b</sup>	392,310	417,120	434,560	+42,250
Total Population <sup>b</sup>	399,480	425,550	443,200	+43,720
Employed Residents <sup>b</sup>	174,740	194,040	225,680	+50,940
Total Employment	185,160	215,050	247,500	+62,340
Manufacturing	17,810	18,470	20,120	+2,310
Other <sup>c</sup>	74,040	84,400	93,500	+19,460
Retail	23,720	27,440	30,700	+6,980
Service	69,590	84,740	103,180	+33,590

<sup>a</sup> Households, household population, total population, and employed residents are from the 2000 Census.

<sup>b</sup> Projections for 2010 and 2025 incorporate changes in demographic characteristics of the population in the existing housing stock in Oakland as evidenced in persons per household and employed persons per household factors from ABAG *Projections 2002*. The demographic characteristics of residents of new housing to be built in Oakland by 2010 and 2025 are based on those same ABAG factors or are estimated using special factors that better reflect the anticipated population in new housing, for TAZs with little or no housing in 2000 of the types being built (as the ABAG factors are based on the existing population in 2000).

<sup>c</sup> Includes employment in finance, insurance, real estate (FIRE); government; construction; transportation, communications, and utilities (TCU); wholesale; and agriculture and mining.

Source: Hausrath Economics Group based on approach and methodology described in Appendix D.

## Comparisons with LUTE EIR and CMA/ABAG Projections

Table 2 compares the *Uptown EIR* growth scenario for Oakland with the growth assumptions from the *LUTE EIR* and with the ABAG projections. As shown and described below, the *Uptown EIR* growth scenario provides the most up-to-date and most conservative scenario of future growth compared to the *LUTE EIR* scenario and the ABAG projections.

- **Comparison to LUTE EIR:** The growth assumptions for the *LUTE EIR* were derived from ABAG *Projections '96* and identified a base year of 1995 and growth through 2015. The *Uptown EIR* growth scenario uses a 2000 base year and extends further into the future, to 2025. In addition, the *Uptown EIR* scenario incorporates 2000 Census data released since the *LUTE EIR* was prepared, and current assumptions through June 2003 for recent and anticipated future growth and development in Oakland.

As shown in Table 2, the updated *Uptown EIR* cumulative scenario includes higher total employment (247,500 jobs compared to 208,836 jobs) and higher total households (169,010 households compared to 156,077 households) in Oakland compared to the *LUTE EIR* scenario. The *Uptown EIR* scenario also reflects higher rates of future growth in Oakland compared to the *LUTE EIR* scenario, for both employment and households.

- **Comparison to ABAG/CMA Projections:** The updated *Uptown EIR* cumulative scenario is similar to the ABAG *Projections 2002* for Oakland and the ABAG projections as incorporated into the Alameda County CMA travel model for use in EIR transportation analyses (identified as CMA/ABAG *P2002* in Table 2). As shown in Table 2, total households in Oakland are very similar under both the *Uptown EIR* scenario and the CMA/ABAG projections, while total employment for the *Uptown EIR* scenario is slightly higher than under the CMA/ABAG projections. More comparisons between the *Uptown EIR* scenario and the CMA/ABAG projections are provided in Appendix D in the *Uptown EIR*.

**Table 2: Comparison of Uptown EIR Growth Scenario, Lute EIR Growth Scenario, and ABAG Projections for City of Oakland**

	1990	1995	2000	2010	2015	2025
<b>Household Projections</b>						
ABAG Projections '96	144,520 <sup>a</sup>	144,030	146,400	151,080	153,110	-
General Plan/Lute EIR	-	<b>144,031</b>	-	-	<b>156,077</b>	-
ABAG Projections 2002	144,520 <sup>a</sup>	-	150,790 <sup>a</sup>	156,610	160,850	168,640
CMA/ABAG P2002 <sup>b</sup>	144,520 <sup>a</sup>	-	150,790 <sup>a</sup>	158,129 <sup>b</sup>	-	169,077 <sup>b</sup>
<b>Uptown EIR Scenario</b>	144,520 <sup>a</sup>	-	<b>150,790<sup>a</sup></b>	<b>158,910<sup>c</sup></b>	-	<b>169,010<sup>c</sup></b>
<b>Employment Projections</b>						
ABAG Projections '96	170,200	166,470	172,580	187,010	188,740	-
<b>General Plan/LUTE EIR</b>	-	<b>166,490</b>	-	-	<b>208,836</b>	-
ABAG Projections 2002	178,340	-	193,950	215,580	228,380	243,500
CMA/ABAG P2002 <sup>b</sup>	173,273	-	185,160	213,820 <sup>b</sup>	-	245,060 <sup>b</sup>
<b>Uptown EIR Scenario</b>	173,273	-	<b>185,160</b>	<b>215,050<sup>c</sup></b>	-	<b>247,500<sup>c</sup></b>

<sup>a</sup> U.S. Census.

<sup>b</sup> Projections in the Alameda County CMA travel model as of May 2003; future year totals are controlled to within 1 percent of citywide totals from ABAG Projections 2002, per CMA direction.

<sup>c</sup> Developed and updated for Uptown EIR cumulative analyses as of June 2003, by Hausrath Economics Group working closely with City staff.

Source: Hausrath Economics Group



## APPENDIX B-1



155 Grand Avenue, Suite 400  
Oakland, California 94612  
510-763-2929  
Fax 510-834-5220

OAKLAND • LOS ANGELES • SACRAMENTO • SAN JOSE • SAN BERNARDINO • SALT LAKE CITY

**TO:** Adam Weinstein  
**FROM:** Bob Toothman  
Scott Arganek  
**DATE:** December 16, 2003  
**SUBJECT:** Oakland Uptown Project  
Sanitary Sewers - Wet Weather Capacity

**PROJECT NO.** 803057X0

---

Sewage capacity within the EBMUD system, including both hydraulic capacity and treatment capacity, is allocated among the communities and agencies that deliver sewage to EBMUD. The entity delivering sewage to EBMUD can use this capacity allocation in any way that they want as long as the capacity allocation for a sub-basin is not exceeded. In the case of the Uptown Project, the sub-basin allocation is controlled by the Oakland Public Works Agency. The availability of sub-basin capacity is determined by the City within their existing agreement with EBMUD and is not based on the overall capacity of the treatment plant. I verified this information with Maura Bonarens of EBMUD by telephone on 11/17/03.

Our sewer capacity calculations for the project area are included in this transmittal. This information was transmitted to Gus Amerzheni of DPW In August. I re-sent the information to him in November. He subsequently sent me an e-mail dated November 17 indicating that adequate capacity exists within the sub-basin to accommodate wet weather flows. The e-mail is included in this transmittal. Gus indicates that adequate capacity exists within the system to handle the proposed project flows, and agrees that our on-site configuration also has adequate capacity. It is my understanding that this is the only determination that needs to be made, and is also the only determination that is relevant to our project. EBMUD does not make this determination. Adequate capacity is available for our project.

Please call me if you have questions.

**From:** Robert Toothman [rtoothman@Korve.com]  
**Sent:** Tuesday, November 18, 2003 9:01 AM  
**To:** 'Adam Weinstein'; Scott Arganek  
**Subject:** FW: Oakland Uptown

Gus's response confirming the availability of sanitary sewer capacity is attached. We have adequate capacity. There is an existing manhole at our proposed point of connection. This should resolve sanitary sewer questions.

-----Original Message-----

**From:** Amirzehni, Gus [mailto:gamirzehni@oaklandnet.com]  
**Sent:** Monday, November 17, 2003 4:42 PM  
**To:** 'Robert Toothman'  
**Cc:** Sweiss, Fuad; Uzegbu, Marcel  
**Subject:** RE: Oakland Uptown

Bob,

Here are my comments re sewer capacity for the Oakland Uptown project.

1. The existing sewer in 20th Street between Telegraph and San Pablo is a 5' brick sewer, lined with PVC lining system. Any connection to this system should be made via an existing manhole. No direct connection to this line will be allowed.
2. Based on your attached SS loads and proposed connection configuration to the existing sewer in 20th Street, there is enough capacity in the system to handle the proposed project.
3. This email pertains only to sewer capacity, as you requested over the phone, and is not a complete EIR review comments.

---

Gus Amirzehni, P.E.

Engineering Division  
Public Works Agency  
510.238.6601 (Tel) 510.238-7227 (Fax)  
250 Frank H. Ogawa Plaza, Suite 4314  
Oakland, CA 94612-2033

-----Original Message-----

**From:** Robert Toothman [mailto:rtoothman@Korve.com]  
**Sent:** Monday, November 17, 2003 10:48 AM  
**To:** 'gamirzehni@oaklandnet.com'  
**Cc:** Scott Arganek  
**Subject:** FW: Oakland Uptown

Gus,

A copy of my email from last August with the loads and hydraulic calculations for the Oakland Uptown Project are attached. These are the most recent calculations. The point of connection to the DPW system will be to an existing 5 foot diameter brick sewer in 20<sup>th</sup> Street between Telegraph and San Pablo. This sewer runs down 20<sup>th</sup> and turns north on San Pablo.

We appreciate your help completing our EIR response. Please call me if you need any additional information, or if we need a meeting to resolve this matter.

Thanks,

Bob Toothman  
(510) 622-6607

-----Original Message-----

**From:** Robert Toothman  
**Sent:** Monday, August 18, 2003 2:31 PM  
**To:** 'gamirzehni@oaklandnet.com'

**Cc:** Scott Arganek; Brandon Whitehurst

**Subject:** Oakland Uptown

Gus,

The revised sewage and hydraulic calculations for the Oakland Uptown Project are attached. Please note that there are two spreadsheets, the demands are on sheet one and the hydraulics are on sheet two. My apologies for not getting this to you last week - we had some internal confusion about who was going to send it. I will call you tomorrow to set up a time when we can meet and discuss.

Thanks,

Bob Toothman

## APPENDIX B-2

### Appendix B-2 Oakland Uptown Project

#### Sanitary Sewage Loads

August 14, 2003

Parcel	Land Use	Density		Units	Sq. Ft	Persons	Wastewater Demand	Average Sanitary Discharge	Peak Factor	Peak Sanitary Discharge	Maximum Discharge - Includes Inflow and Infiltration	Maximum Discharge
				#			gpd/Person	gpd		gpd	cfs	
1	Apartments	2.25	persons/du	190	-	428	100	42,750	1.80	76,950	307,800	0.48
2	Apartments	2.25	persons/du	190	-	428	100	42,750	1.80	76,950	307,800	0.48
3	Apartments	2.25	persons/du	250	-	563	100	56,250	1.80	101,250	405,000	0.63
4	Apartments	2.25	persons/du	225	-	506	100	50,625	1.80	91,125	364,500	0.56
5	Condominiums	2.25	persons/du	270		608	100	60,750	1.80	109,350	437,400	0.68
6	Apartments	2.25	persons/du	145	-	326	100	32,625	1.80	58,725	260,000	0.40
7	Student Beds	1	person/du	1000	-	1000	100	100,000	1.80	180,000	720,000	1.11
	Faculty Units	1	person/du	50	-	50	100	5,000	1.80	9,000	36,000	0.06
8	Commercial	450	sf/employee	-	5000	11	100	1,111	1.80	2,000	8,000	0.01
9	Commercial	450	sf/employee	-	10000	22	100	2,222	1.80	4,000	16,000	0.02
Total Project				2320	15000	3941	1000	394083		709,350	2,862,500	4.43

Notes:

- 1 Land use, number of dwelling units, and floor areas from draft EIR
- 2 2.25 average persons per dwelling unit and 450 square feet per employee based on current City and County of San Francisco assumptions for Hunters Point Redevelopment project
- 3 100 gpd/person based on current City and County of San Francisco assumptions for Hunters Point Redevelopment project
- 4 Discharge including inflow/infiltration is four times peak sanitary discharge

## APPENDIX B-3

<b>Appendix B-3 Oakland Uptown Project Water Demands December 17, 2003</b>	
<b>Domestic Water Demand</b>	
Demand Rate (Gallons per Capita per Day):	125
Persons per Dwelling Unit:	2.35
Dwelling Units:	1120
Average Daily Demand (Gallons per Day):	329,000
Average Daily demand (GPM):	228
Average Daily demand (CFS):	0.51
Peaking Flow Factor:	1.6
Peak Domestic Water Demand (GPM)	366
Peak Domestic Water Demand (CFS)	0.81
<b>Required Fire Flows</b>	
Minimum Fire Flow, Residential, (GPM)	TBD
Minimum Fire Flow, Commercial, (GPM)	TBD
Minimum Fire Flow, Commercial, (CFS)	TBD
<b>Maximum Water Demand (GPM)</b>	<b>TBD</b>
<b>Maximum Water Demand (CFS)</b>	<b>TBD</b>

**Notes:**

1. Maximum water demand is the sum of peak domestic demand and fire flow requirements.
2. Average Daily Sewage Flow = 85% Average Daily Water Demand.
3. Fire flows are subject to negotiations with the Fire Department and are To Be Determined
4. The adequacy of the existing system to meet maximum demands will be determined by EBMUD based on the peak domestic demand indicated and the fire flow demand.
5. The proposed development will be served by existing off-site 8 inch water mains in San Pablo Avenue and Telegraph Avenue. New 8 inch water mains are proposed in 19th Street and William Street.
6. The existing off-site water system supplying the development appears to have adequate capacity to meet the indicated demands. Some improvements to the existing off-site system may be required due to the age and condition of the existing system. Preliminary discussions with EBMUD indicate that adequate water will be made available for the development (Brandon whitehurst communication with EBMUD).

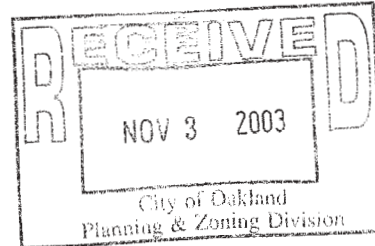


1600 Franklin Street, Oakland, CA 94612 - Ph. 510/891-4716 - Fax. 510/891-7157

**Kathleen Kelly**  
Deputy General Manager - Service Development

November 3, 2003

Lynn Warner  
Planner IV  
City of Oakland Planning Division  
250 Frank Ogawa Plaza, Suite 3330  
Oakland, Ca. 94612



**Re: Draft Environmental Impact Report (EIR), Uptown Mixed Use Project**

Dear Ms. Warner:

Thank you for the opportunity to comment on the Draft Environmental Impact Report for the Uptown Mixed Use Project.

The project is located within the blocks bounded by 18<sup>th</sup> Street on the south, 21<sup>st</sup> Street on the north, Telegraph Avenue on the east and San Pablo Avenue on the west. The Fox Theatre is not part of the project, which consists of approximately 1,000 apartments, 270 condominiums, 1,050 beds of student/faculty housing, 43,000 square feet of commercial space, a 25,000 square foot public park, and 1,959 parking spaces.

**Overall Comments**

Uptown presents as strong an opportunity as exists in Oakland to do transit-oriented development. The site is at the center of the East Bay transit network and adjacent to the core of Downtown Oakland. Because the proposed project is primarily housing, it would result in customers for Downtown businesses, pedestrian life on evenings and weekends, and "reverse commute" transit riders. We are also pleased that the project would develop the site intensely--it is a textbook location for high-density housing. This is particularly beneficial for a site that is now primarily used for parking. The Uptown project is only four blocks from AC Transit's General Office, so this would very much be development in our own neighborhood.

Our comments relate to existing and planned transit--especially the Bus Rapid Transit (BRT) project and Rapid Bus service, which is proposed for Telegraph Avenue immediately adjacent to the project. The expected presence of the BRT has implications for siting of uses--especially the Sears Auto Center--and for the design of the project.

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Uptown EIR Response  
Page 2

Given these issues, we are also concerned about the inappropriately large amount of parking that is proposed for the project. As a result, we have suggested a new mitigation, as well as modifications to existing mitigations, which are represented through *italics*.

1

#### **Transit Capacity**

We note that the EIR estimates that peak period loads on AC Transit buses in Downtown Oakland will rise less than 3% as a result of this project. We accept that this impact is deemed not to be significant.

2

#### **Current Transit Service**

As the discussion on pp. 91-93 indicates, the Uptown site is served by numerous bus lines. The site is within a few blocks of the best served area of the AC Transit district.

Figure IV.D-3 does not illustrate all of the most recent changes:

- Line 19 operates through the Alameda tubes, via 7<sup>th</sup>/8<sup>th</sup>, Broadway and 11<sup>th</sup>/12<sup>th</sup> to West Oakland, Emeryville, and West Berkeley;
- Line 50 operates through the Alameda tubes and on the same route as the 19, but terminates at 11<sup>th</sup> & Martin Luther King. This route segment will be re-designated the 63 in December.
- Line 88 operates from Lake Merritt BART to North Berkeley BART via. 11<sup>th</sup>/12<sup>th</sup>, Market St., and Sacramento St.;
- Line 14 does not operate on 11<sup>th</sup>/12<sup>th</sup>, but on 14<sup>th</sup> St., where it also shown.
- Line 82/82L no longer operates on 14<sup>th</sup> St., but on 11<sup>th</sup>/12<sup>th</sup> St., where it also shown

#### **Transit Service as of December, 2003**

AC Transit will modify its service to Downtown Oakland as of December, 2003. The most important change will be elimination of line 58/58X. Alternative service from MacArthur Boulevard to Downtown Oakland will be provided by Line NL, which will operate along 20<sup>th</sup> Street between Harrison and San Pablo. Late night owl service to San Francisco currently provided by the A line will be provided by line NL in December. Service will remain along all other routes now being served, although in some instances, route numbers will change.

3

#### **Bus Rapid Transit and Longer Range Plans**

AC Transit is planning to develop a Bus Rapid Transit (BRT) line and Rapid Bus service from Berkeley to San Leandro that will operate adjacent to the project along Telegraph Avenue between 20<sup>th</sup> and 21<sup>st</sup> Streets. Coming from the north, the line is planned to operate along Telegraph Avenue, turn left at 20<sup>th</sup> Street, and right at Broadway. The BRT is designed to provide high speed, high frequency, high capacity service on key East Bay transit corridors. The project is currently undergoing environmental review.

We are working closely with the City of Oakland to design a station on 20<sup>th</sup> Street between Broadway and Telegraph. We hope that this station will not only allow for

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Uptown EIR Response  
Page 3

pleasant, efficient bus operations and passenger comfort, but will also serve as an attractive public amenity for the Uptown area. We also appreciate the fact that no garage entrances are planned along the BRT route.

**3**  
**cont.**

**Sears Auto Center Site**

Because of the planned BRT station on 20<sup>th</sup> Street, we strongly recommend that the Sears Auto Center be relocated to the preferred site of 22<sup>nd</sup> & Telegraph. The alternate site at 20<sup>th</sup> & Telegraph would be adjacent to this station. The two uses would be incompatible, with the Auto Center generating a high volume of vehicles that could conflict with the high volume of AC Transit buses using 20<sup>th</sup> Street. In addition, an auto repair center does not represent a transit-friendly use for passengers waiting at 20<sup>th</sup> Street. Placing an auto repair use on such a prominent corner would be inappropriate urban design.

**4**

**Transit Mitigations**

Mitigation Measure AIR-2 outlines a number of transit, services, and bicycle/pedestrian measures that the City *may* (emphasis added) require the Project to implement. We believe that the transit and bicycle/pedestrian measures--such as designing buildings to facilitate transit access (Transit Measure ii)--are achievable and important. The EIR should state that they *shall* be required, to assure that they are implemented.

**5**

We would also suggest modifying Transit Measure I to read as follows: *Construct transit facilities such as bus turnouts/bus bulbs, benches, shelters, and other needed facilities, with the review and approval of AC Transit.* AC Transit will be operating a wider range of bus types than we do now, and it is important that all transit-related facilities be fully functional for all of our vehicle types.

**Bus Service and Project Design**

The project should also take note of the buses that will be operating on 20<sup>th</sup> Street between Broadway and San Pablo. While the BRT line will have turned, Lines 15, 72/72M/72R, and NL are all planned to operate on this block. Together, these buses are planned to operate 17 trips per hour in each direction during weekday daytime periods. The project appears to have only one garage access driveway from this block of 20<sup>th</sup> Street, which should reduce conflicts. The developers should take note of this high level of bus activity in designing the project.

**6**

**Parking Provided**

AC Transit commends the fact that the Uptown project proposes a lower level of parking than many recent Downtown Oakland projects. However, we believe that the proposed amount of parking is too large, given the project's characteristics and its location at a primary transit hub.

**7**

The project proposes to provide one parking space per unit, and one parking space for every two beds in the college residence. Oakland's S-15 zoning regulations, which apply to BART stations outside of Downtown Oakland, allow as little as .5 spaces per



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Uptown EIR Response  
Page 4

unit. Uptown has more transit service and more destinations within walking distance than the S-15 BART stations, making it easier for people to live in Uptown without a car. The higher requirement on Uptown seems inconsistent. The EIR forecasts that 60% of units will be studios or one-bedroom units. These units would be occupied by small households with lower car ownership rates than the parking requirement has accommodated. We suggest that the parking ratio--particularly for apartment units--be lowered.

In addition, the provision of one parking space for every two beds in the college residence is excessive. Rates of car ownership by residents in dorms at the University of California Berkeley are substantially lower than this. Berkeley students living at the Uptown site would not normally be able to drive to campus, because the University does not provide parking spaces for students except under special circumstances. UC Berkeley students can also ride AC Transit for free by showing their student identification cards. The Bus Rapid Transit project discussed above will provide fast transit directly from Uptown to the Berkeley campus. These parking and Class pass policies, in addition to the myriad transit options that will be available, further reduce the likelihood of students owning cars. The parking ratio for these beds should be lowered substantially.

To the extent that these parking spaces are available during the daytime, they will tend to attract auto-driving commuters. As the EIR notes, the 1,620 spaces that would be built under this project are more than the existing 1,242 spaces. Commuter use is undesirable and inconsistent with Oakland's stated planning goals. However, nothing in the project as described would prevent this use from happening.

Reducing the parking requirement would reduce the cost of the project, making it more financially feasible. It could also reduce traffic to the site and reduce the requirement for traffic mitigations.

#### **Parking Charges Mitigation**

It is widely acknowledged that charging for parking helps limit parking demand. This EIR includes no mitigations requiring parking charges. Therefore we propose the following mitigation:

- *All parking created pursuant to this EIR shall be charged for at market rates, as determined by the City of Oakland. Any tenant leasing parking shall pay for that parking separately from its rent/lease payment, and no tenant shall be compelled to lease parking.*

#### **Signal Cycle Lengths**

The EIR states that increased traffic will require changes to signal timing at Telegraph & William, and Harrison & Grand. We assume that the signal cycles at these locations would be extended, although the EIR does not specify that. Since AC Transit operates at both of these locations, we should be consulted about signal cycle changes. Such changes can be helpful or harmful for bus operations. They also generally create delay

**7**  
**cont.**

**8**

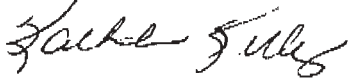
November 3, 2003  
Uptown EIR Response  
Page 5

for pedestrians--an undesirable outcome. Additionally, on Telegraph Avenue, substantial changes in signal timing are planned as part of the Bus Rapid Transit project. Therefore, any changes in signal timing on Telegraph related to the Uptown project should be coordinated with the BRT.

**8**  
**cont.**

AC Transit looks forward to working with Oakland to facilitate the development of Uptown as a model transit-friendly area. If you have any questions about this letter, please contact Nathan Landau, Senior Transportation Planner, at 891-4792.

Sincerely,



Kathleen Kelly  
Deputy General Manager  
Service Development Department

Cc: AC Transit Boardmembers  
Jim Gleich  
Tina Spencer  
Jon Twichell,  
Nathan Landau



City of Alameda • California

November 3, 2003

FILE COPY

Ms. Claudia Cappio  
Development Director, City of Oakland  
250 Frank H. Ogawa Plaza, Suite 3330  
Oakland, CA 94612

Subject: Comments on Uptown Mixed Use Project Draft EIR

Dear Ms. Cappio:

Thank you for the opportunity to comment on the Uptown Mixed Use Project Draft EIR Draft EIR ("Uptown EIR"). Over the course of the last few years, the City of Alameda has received numerous requests from the City of Oakland to conduct detailed and comprehensive traffic analyses of traffic conditions in Downtown Oakland and the potential effects of development on existing conditions in Downtown Oakland. In response to these requests, the City of Alameda has accumulated an extensive database of existing and projected traffic conditions throughout downtown Oakland. This database is continually updated using City of Oakland traffic studies, the Alameda County Congestion Management Agency (CMA) regional traffic model, and ongoing in-field observations.

In recent months, the City of Alameda and the City of Oakland have had extensive discussions about the existing and projected traffic problems at the "gateways" to Oakland, which are also used by Alameda residents and businesses. We received written communications from both former City Manager Robert Bobb and former Planning Director Leslie Gould claiming that the City of Alameda underreported potential impacts at these critical locations. In contrast to the City of Oakland's stated concerns to the City of Alameda about these future traffic conditions and the impact of traffic on Oakland Chinatown, the City of Oakland's Uptown EIR future year ("baseline") projections (which includes full build out of Alameda Point) fails to recognize most of these well-known problems, fails to evaluate the project's contribution to these problems, fails to take any responsibility for the additional traffic that the proposed project's approximately one thousand residential units will contribute to these well-know problem areas, and utterly fails to acknowledge or even consider the impact of the development on the Chinatown community. It appears that the Uptown EIR includes a number of faulty assumptions, which have resulted in a underreporting of significant impacts to the transportation system that is shared by all of the cities in Alameda County.

In the interest of providing the public with consistent information about the state of our shared transportation system, please provide written clarification on the following specific concerns about the Uptown EIR.

Planning and Building Department

2263 Santa Clara Avenue, Room 190  
Alameda, CA 94501  
510 748.4530 • Fax 510 748.4593 • TDD 510 522.7538

1. **Adequacy of Projected Traffic, Air, and Noise Impact Analysis.** The Alameda County Congestion Management Agency recently informed the City of Alameda that the land use data provided for the CMA Model 2002 update by ABAG is flawed. Without a valid data base, all of the future year traffic, air and noise projections for 2005 and 2025 in the Uptown EIR are flawed. Even if the City of Oakland, corrected the inaccuracies for the TAZs within Oakland, all of the inaccuracies for all of the neighboring jurisdictions must also be corrected to ensure valid traffic model results for the shared, regional roadway system. Without valid traffic model results for 2005 and 2025, none of the EIR conclusions regarding 2005 and 2025 traffic, air quality, or noise impacts can be considered adequate or valid because they all depend upon valid traffic data from the CMA model.

1

2. **Land Use and Transportation Element EIR:** According to page 39 of the Draft EIR, the Uptown EIR tiers off of the Land Use and Transportation Element EIR (LUTE EIR). The LUTE EIR identifies a number of impacts that result from the "downtown showcase" projects, which include the Uptown Mixed Use Project site. Specifically, the LUTE EIR correctly identifies impacts from Oakland development at the intersection of 12<sup>th</sup> and Brush. (This intersection currently backs up onto I-24 on a regular basis in the AM peak hour, as predicted in the 1996 LUTE EIR.) The LUTE EIR, the City of Oakland City Center EIR, and the City of Oakland Housewives Market EIR commit the City of Oakland to mitigations to eliminate this significant impact to a level of less than significant. To date, the City of Oakland has ignored its responsibilities and commitments adopted in these Mitigation Monitoring Program for these Oakland EIRs and allowed this significant impact to occur. As described in the LUTE EIR, the Uptown Mixed Use project is partially responsible for this impact. Therefore, the Uptown EIR must acknowledge this impact and include a mitigation to rectify the ongoing problems at 12<sup>th</sup> and Brush.

2

It should be noted, that the continuing congestion at this gateway to Oakland, causes traffic headed to Jack London Square and Alameda to use alternative routes to access the Tubes and the Jack London Square. Many of these alternative routes require driving through Oakland Chinatown, which could be avoided if Oakland had met its commitments to mitigate this impact from past developments.

3. **Significant Unavoidable Impacts associated with the LUTE EIR.** The LUTE EIR identifies a series of significant unavoidable transportation impacts associated with downtown development, which specifically includes the Uptown Project. Significant unavoidable impacts were identified for a number of locations. The two most important to Alameda include:
- o SR 24 in the AM and PM peak hour, which is major regional freeway used by Oakland and Alameda residents and business, and



- o SR 260 (Webster-Posey Tubes).

Although the Uptown EIR tiers off of the LUTE EIR, it fails to acknowledge these significant unavoidable impacts associated with Uptown development. These impacts must be acknowledged in the Uptown EIR and new, the current Oakland City Council must make updated statements of overriding consideration for the Uptown Project. The Uptown EIR must therefore be revised and recirculated to include these significant unavoidable impacts.

The court stated in *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal. App. 4<sup>th</sup> 98 122-125 that:

*"The requirement of a statement of overriding considerations is central to CEQA's role as a public accountability statute; it requires public officials, in approving environmentally detrimental projects, to justify their decisions based on counterbalancing social, economic or other benefits, and to point to substantial evidence..."*

*"Even though a prior EIR's analysis of environmental effects may be subject to being incorporated in a later EIR for a later, more specific project, the responsible public officials must still go on record and explain specifically why they are approving the later project despite its significant unavoidable impacts."*

State of California Public Resource Code Section 21159.25 (commonly referred to as Assembly Bill 436) does not allow the City of Oakland to bypass this fundamental principle of the California Environmental Quality Act. If the City of Oakland wishes to tier off of the LUTE EIR, it must also acknowledge the significant unavoidable impacts associated with development consistent with the LUTE EIR and must make new statements of overriding considerations for each of these projects, including the Uptown Mixed Use Project. These significant impacts must be acknowledged in a revised and recirculated Uptown EIR, so that the public has a complete understanding of the full range of impacts associated with the City of Oakland development plans.

Thank you for your consideration of our concerns. We look forward to working cooperatively with the City of Oakland to identify solutions, funding mechanisms, and shared responsibility for improving our shared transportation system.

Sincerely,

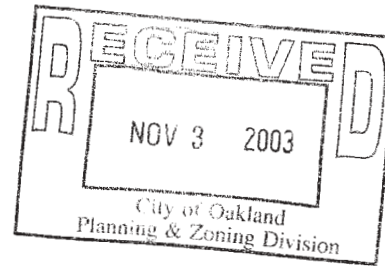
  
Gregory Fuz, (A7)  
Planning and Development Director

xc: City Manager

Uptown EIR Comments  
November 4, 2003

Page 4

Deputy City Manager, Alameda Point  
City Attorney  
Mayor and City Council



November 3, 2003

Ms. Lynn Warner  
Planner IV  
City of Oakland  
Community and Economic Development Agency  
Planning Division  
250 Frank H. Ogawa Plaza, Suite 3330  
Oakland, CA 94612

SUBJECT: Comments on the Draft Environmental Impact Report for the Uptown Mixed Use Development Project in the City of Oakland (Case Number ER03-0007)

Dear Ms. Warner:

Thank you for the opportunity to comment on the City of Oakland's Draft Environmental Report (DEIR) on the Uptown Mixed Use Development Project. The project would consist of construction of approximately 1,000 apartments and 270 condominiums, 1,050 student beds/faculty units, 43,000 square feet of commercial space, 1,959 parking spaces and a 25,000 square foot public park. The project site is located on a nine block, 15-acre site in the Uptown District of the City of Oakland, and is bounded by Thomas L. Berkley Way (20<sup>th</sup> Street) on the north, Telegraph Avenue on the east, 18th Street on the south, and San Pablo Avenue on the west. It does not include the Fox Theater.

The ACCMA respectfully submits the following comments:

- Page 123-134, Mitigation Measures TRANS-1 2, 4, 6, 7, 8, 9, 10, 12, 13, 14: Payment of funds towards preparing and implementing a signal optimization and coordination plan for the project area:
  - What mechanism will the City use to obtain a fair share of the payment for the costs of implementing this mitigation measure?
  - When will the project sponsor make this payment? Will it be triggered to discretionary project approvals? If so, which ones? Will it be made when the entire development is approved or will it be phased over time?
  - If the City establishes a Traffic Improvement Program with a concurrent Traffic Impact Fee Ordinance and this occurs after project approval, how and when will the City collect the project proponent's fair share of the cost of traffic signalization improvements?
  - If the Redevelopment Agency decides to contribute funds to the costs of implementation of signalization improvements, how would this affect the City's determination and collection of the project proponent's fair share of these improvements?

Ms. Lynn Warner  
November 3, 2003  
Page 2

- Page 124, Impact TRANS-3 and Page 133, Impact TRANS-11, Need to widen intersection of Grand Avenue and Frontage Road/West to address LOS F and vehicle delay in the PM peak hour in 2010 and 2025: Both of these Impacts are identified as Significant and Unavoidable due to inability to make improvements on another agency's (Caltrans) jurisdiction.
  - Please confirm whether you have contacted Caltrans to determine whether they have any improvement plans for this area. If so, a mitigation measure should be added that the project sponsor should contribute their fair share of these improvements. This measure should include the mechanism and timing for such fund collection.
  
- Page 106, Planned Transportation Improvements considered by the City of Oakland:
  - Is the reconfiguration of Telegraph Avenue between 16<sup>th</sup> Street and Thomas L. Berkley Way (20<sup>th</sup> Street) assumed in the traffic impact analysis?
  - If it is assumed, what funding source would pay for this and what date is this project expected to be constructed?

2

3

Once again, thank you for the opportunity to comment on this Draft EIR. Please do not hesitate to contact me at 510/836-2560 ext. 13 if you require additional information.

Sincerely,

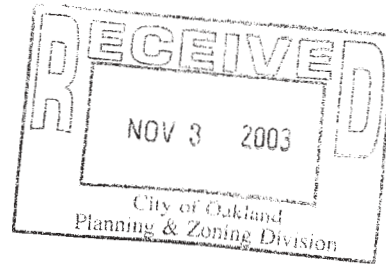
Diane Stark  
Sr. Transportation Planner

file: Chron  
CMP - Environmental Review Opinions - Responses - 2003





November 3, 2003



Claudia Cappio, Director of Planning and Zoning  
City of Oakland Planning Division  
250 Frank H. Ogawa Plaza, Suite 3330  
Oakland, CA 94612

Dear Ms Cappio:

Re: Draft Environmental Impact Report – Uptown Mixed Use Project

The East Bay Municipal Utility District (EBMUD) appreciates this opportunity to review and comment on the Draft Environmental Impact Report (EIR) for the Uptown Mixed Use Project in the City of Oakland. EBMUD has the following comments on the Draft EIR.

On pages 179 - 192, Section G, Hazards and Hazardous Materials, addresses the potential for contaminated soils or groundwater to be present within the project site boundaries. The project sponsor should be aware that EBMUD will not install pipeline in contaminated soil or groundwater (if groundwater is present at any time during the year at the depth piping is to be installed) that must be handled as a hazardous waste, or that may be hazardous to the health and safety of construction or maintenance personnel wearing Level D personal protective equipment. Nor will EBMUD install pipeline in areas where groundwater contaminant concentrations exceed specified limits for discharge to sanitary sewer systems or sewage treatment plants.

Applicants for EBMUD services requiring excavation in contaminated areas must submit copies of all known, existing information regarding soil and groundwater quality within or adjacent to the project boundary and a legally sufficient, complete and specific written remedial plan establishing the methodology, planning and design of all necessary systems for the removal, treatment, and disposal of all identified contaminated soil and/or groundwater. EBMUD will not design the installation of pipelines until such time as soil and groundwater quality data and remediation plans are received and reviewed and will not install pipelines until remediation has been carried out and documentation of the effectiveness of the remediation has been received and reviewed. If no soil or groundwater quality data exists or the information supplied by the applicant is insufficient, EBMUD may require the applicant to perform sampling and analysis to characterize the soil being excavated and groundwater that may be encountered during excavation or perform such sampling and analysis itself at the applicants expense.

1

On page 193, paragraph 6, “The East Bayshore Water Project” should be replaced with “East Bayshore Recycled Water Project”.

2

Ms. Claudia Cappio  
November 3, 2003  
Page 2

On page 194, paragraph 1, replace the sentence, "As of 2001, EBMUD's water supply was insufficient . . ." with "In 1993, EBMUD adopted a long-term Water Supply Management Program (WSMP) that serves as a planning guide to the provision of a reliable high-quality water supply to the EBMUD service area through year 2020. The WSMP identified that, during severe multi-year droughts, EBMUD would be unable to meet its customers need for water with its existing source supply, the Mokelumne River, without imposing extreme rationing measures. The 1993 WSMP resulted in two principal options for meeting EBMUD's projection for a supplemental water supply: additional surface or underground storage and additional surface water. Development of an additional surface for EBMUD use may be possible by either enlarging the existing storage at Pardee Reservoir and/or by utilizing EBMUD's Sacramento River contract entitlement."

**3**

On page 194, paragraph 4, replace the first sentence " The Project site is served . . ." with "The Project site is served by pipelines in the existing streets that range in size from 4 to 12 inches." Please delete the second sentence, "These lines and associated minor . . .", because the stated flow rate is not available. Also delete the last sentence, "The minimum flow standards for lines serving . . .", as they are inconsistent with the typical fire flow requirements specified by the local fire departments. The project sponsor should verify the required fire flow for this project with the City of Oakland's Fire Department.

**4**

On page 198, paragraph 1, second sentence, replace the daily demand of 329,000 gpd to 365,000 gpd as indicated in the Water Supply Assessment provided to the City of Oakland on August 13, 2003.

**5**

On page 198, paragraph 1, after the fourth sentence, please include "The City's dual plumbing ordinance requires that the project sponsor install dual plumbing systems within new project development for the appropriate use of recycled water from EBMUD's East Bayshore Recycled Water Project, as EBMUD plans to supply recycled water to the project site within the next ten years for landscape irrigation."

On page 198, paragraph 3, please delete the first two sentences. As noted in EBMUD's March 29, 2003 response to the Notice of Preparation (NOP) that is included in Appendix A-3 of the Draft EIR, main extensions (including pipeline replacements) and/or pipeline improvements may be required depending on metering and fire flow requirements.

**6**

On page 198, paragraph 4, please delete the second and third sentences. The stated fire flow requirements are inconsistent with those stated on page 194, paragraph 4 and are inconsistent with the typical fire flow requirements specified by the local fire departments.

**7**

On page 198, paragraph 5, please delete the second, third and fourth sentences, "Wastewater generated by the Project represents less than 0.2 percent of the MWWTP's secondary treatment capacity. This wastewater would be accommodated by the MWWTP, which is currently operating at 46 percent of its secondary treatment capacity. Therefore, wastewater generated by

**8**

Ms. Claudia Cappio  
November 3, 2003  
Page 3

the proposed project would be subject to both primary and secondary treatment and would not violate the wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board.” EBMUD's NOP response indicated that the Main Wastewater Treatment Plant (MWWTP) would have adequate dry weather capacity for the project, provided the wastewater meets the standards of EBMUD's Source Control Division. However, the ability of the MWWTP to treat wet weather flows from the project needs to be ascertained. EBMUD's response to the NOP very clearly requested specific language in the Draft EIR regarding confirmation of capacity with the City of Oakland in the sub-basin where the project is located. This language is not in the document.

**8**  
**cont.**

On page 199, paragraph 1, last sentence, the statement that “the proposed project would not require the construction of new wastewater treatment or transport facilities” is not correct. Treatment capacity needs to be confirmed by the City of Oakland as stated above, relevant to wet weather flows. Regarding transport facilities, the paragraph states that “Public Works agency staff have indicated that as part of the final public improvement plans for the Project, the conveyance system will be evaluated to confirm what repairs, if any, will be incorporated into the final public improvement plans and specifications.” If this is not to be determined until a future date, then it cannot be definitively stated at this time that no conveyance work will be needed.

**9**

If you have any questions concerning this response, please contact Marie Valmores, Senior Civil Engineer, Water Services Planning, at (510) 287-1084.

Sincerely,



WILLIAM R. KIRKPATRICK  
Manager of Water Distribution Planning

WRK:MAV:sb  
sb03\_289.doc

cc: LSA Associates, Inc.

*Letter*

*A4*

*cont.*

Ms. Claudia Cappio  
November 3, 2003  
Page 4

bcc: J. Smith  
M. Bonnarens  
R. Harris  
M. Valmores  
A. Victoria  
A-619  
Chron

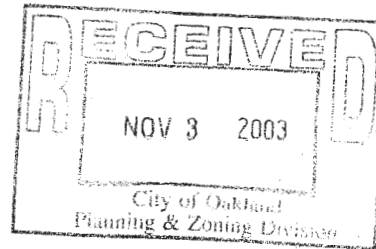


**CHINESE HISTORICAL SOCIETY OF AMERICA**

965 Clay Street • San Francisco, CA 94108-1527 • tel 415-391-1188 • fax 415-391-1150 • www.chsa.org

November 3, 2003

Ms. Lynn Warner  
Case Planner for Case File Number ER 03-0007  
City of Oakland Planning Division  
250 Frank H. Ogawa Plaza, Suite 3330  
Oakland, CA 94612



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Thomas W.S. Wu, D.D.S.

Dear Ms. Warner,

I am writing this letter of concern on behalf of the Chinese Historical Society of America. Established in 1963, CHSA is the oldest not-for-profit organization dedicated to the promotion, education, and preservation of Chinese American history.

We have just been informed of the proposed Uptown Mixed Use Redevelopment Project (case file number ER 03-0007) that plans to demolish all the buildings for the area between San Pablo and Telegraph Avenues and between 21<sup>st</sup> and 18<sup>th</sup> Streets. With the understanding that this area might contain archaeological remains of Oakland Chinatown that existed anywhere between 1867 to 1894, CHSA urges the City of Oakland's Planning Division to stop the full-scale demolition of this area until measures are secured to ascertain the existence of such archaeological remains in order to preserve them for posterity.

The City of Oakland has tried numerous times in the past to expel Chinese in the area for redevelopment reasons. The Uptown Project appears to be the continuation of a history that prejudices and ignores the existence of the Chinese in America, all in the name of redevelopment. If we want to rectify mistakes made in the past, then Oakland must take proactive steps to show everyone that it is not trying again to bury this historic Chinese American community permanently into oblivion.

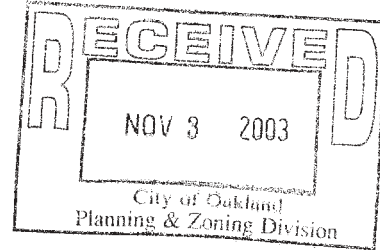
Once again, the Chinese Historical Society of America urges you to acknowledge and preserve the historical significance of the area being proposed for demolition. We do not see any valid necessity for making this a "rush job" that might cause great regret in the future.

Sincerely,

Lorraine Dong, Ph.D.  
President/CEO

cc: Councilmember Henry Chang (hchang@oaklandnet.com)  
Councilmember Jean Quan (jqquan@oaklandnet.com)  
Councilmember Danny Wan (dwan@oaklandnet.com)





November 3, 2003

Claudia Cappio ccappio@oaklandnet.com  
Lynn Warner, Planner IV  
Planner, Community & Economic Development  
Oakland City Planning & Zoning Department  
250 Frank Ogawa Plaza Suite 2114  
Oakland, CA 94612

Re: Draft Environmental Impact Review / Case File Number ER 03-0007

Dear Ms. Cappio and Ms. Warner:

The Lakeside Apartment Neighborhood Association (LANA) proposes that the preservation of the historic fabric of uptown and creative adaptive reuse solutions should be priorities in the Uptown Mixed-Use Project Draft Environmental Impact Report.

Therefore we request further study in the Draft Environmental Impact Report of the transition between existing structures and the proposed "Uptown" development to ensure the preservation of existing structures of all historic periods, whether 19<sup>th</sup> century buildings, the Western Power Building, Giant Burger (former Kwik Way) or the barbecue restaurant.

1

Small businesses in Oakland should be fostered and integrated into the urban design, not threatened with eminent domain. Repeatedly I hear city officials and staff state that one of the objectives of "development" is to bring in small businesses to Oakland yet simultaneously thriving small businesses such as Revelli Tires, Autohaus car repair, etc. are threatened with eviction.

2

Why should hard working small businesses that contribute to the City's taxes be removed to make room for developers that require public subsidies? Instead of "developments" that demonstrate a slash and burn philosophy of urban planning we support developers whose projects reflect vision, respect, and creative integration of the existing historic fabric.

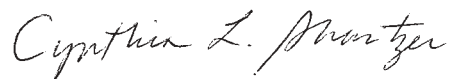
In the October 15, 2003 Oakland City Planning Commission meeting Development Director, Ms. Claudia Cappio reported that the DEIR was available online. This information was not correct.

3

The Jack London Square Draft Environmental Impact Report was posted on the City of Oakland's website. Why wasn't the Draft Environmental Report for the Uptown Mixed-Use Project, ER-0007, posted online?

**3**  
**cont.**

Respectfully submitted,



Cynthia L. Shartz  
1528 Alice Street, Apt. 12  
Oakland, CA 94612  
510-763-7173  
Co-Chair, Lakeside Apartment Neighborhood Association  
Website: [www.oaklandlana.org](http://www.oaklandlana.org) Email: [oaklandlana@yahoo.com](mailto:oaklandlana@yahoo.com)

## Environmental Impact Reports

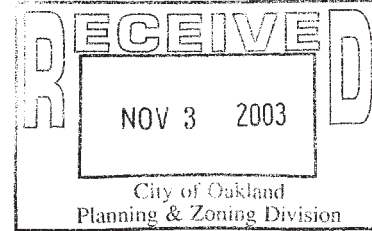
<u>Name/Project</u>	<u>Case Number</u>	<u>Comment</u>
1.) <u>Oakland Army Base Current DEIR-April 2002</u>	N/A	
2.) <u>Oakland Army Base Final EIR-July 2002</u>	N/A	
3.) <u>Oakland Army Base Current Draft EIR Appendix-April 2002</u>	N/A	
4.) <u>Oakland Army Base Current DEIR Traffic Supplemental- April 2002</u>	N/A	
5.) <u>200-228 Broadway Project Final EIR</u>	ER01-0008	
6.) <u>200-228 Broadway Project Draft EIR</u>	ER01-0008	
7.) <u>426 Alice Street Final EIR</u>	ER01-0025	
8.) <u>426 Alice Street Draft EIR</u>	ER01-0025	
9.) <u>RAP/RMP Documents-July 2002</u>	ER01-0025	
10.) <u>300 Harrison Street Draft EIR</u>	N/A	
11.) <u>Final EIR for the 300 Harrison Street Project</u>	ER00-0039	
12.) <u>Jack London Square Redevelopment Draft EIR</u>	ER03-004	



**Oakland Chinatown Coalition**  
**Oakland Chinatown Chamber of Commerce**  
**Asian Health Services**

November 3, 2003

Ms. Lynn Warner  
City of Oakland Community and Economic Development Agency  
Planning Division  
250 Frank H. Ogawa Plaza, Suite 3330  
Oakland, CA 94612



BY FAX: 510 238 6538  
BY e-mail: [lwerner@oaklandnet.com](mailto:lwerner@oaklandnet.com)

Subject: Comments on the Uptown Mixed Use Project Draft Environmental Impact Report  
Case No. ER03-0007  
State Clearinghouse No. 2000052070

Dear Ms. Warner:

Thank you for providing us the opportunity to comment on the DEIR. We strongly support the goals of this Project to provide environmentally sustainable housing for people with a wide range of incomes. The community that we serve is well aware of the many benefits of living in the Downtown. Our community has one of the lowest rates of automobile ownership and a smaller proportion of our residents drive to work than almost anywhere else in the city.

Nonetheless, we are heavily impacted by traffic. As the DEIR points out on page 90, "Traffic signals on both Franklin and Webster are coordinated to facilitate through traffic on these two key roadways."

The heavy use of Chinatown streets as thoroughfares creates an uncomfortable dilemma for our community when a project is proposed that does not take the quality of our environment into account. The Uptown Project has the potential to address Oakland's, including Chinatown's, urgent need for affordable housing accessible to transit. Unfortunately, the Uptown Project also will contribute to traffic patterns that have created hazardous conditions for Chinatown's many pedestrians.

We believe that the Environmental Impact Report can be a good opportunity for the Uptown Project to take full account of our environmental quality. In the comments that follow, we have pointed out where the DEIR has failed to do so, and urge revisions that will enable us to support the Uptown Project without reservations, as we would prefer.

We are available to help in any way we can.

Yours truly,

Jennie Ong  
Oakland Chinatown  
Chamber of Commerce

Sherry Hirota  
Asian Health Services

Attachment: Comments on Uptown DEIR

**COMMENTS ON THE UPTOWN PROJECT DEIR**

**Definition of the Project is unclear:**

The Project site, which consists of a nine-block area, is located within the Uptown District of Oakland, as shown in Figure I-1. The proposed Project includes the following components: approximately 1,300 residential units, 1,050 student beds and faculty units, and 43,000 feet of commercial space. Associated Project components include a 25,000 square-foot public park, 1,959 parking spaces, and the development of one public street within the Project site. The additional public street is intended to shorten block lengths and provide enhanced access within the Project site. Implementation of the proposed Project would result in the development of a mixed-use neighborhood in the Uptown District. Please refer to Chapter III, Project Description, for more details.

The text above<sup>1</sup> distinguishes “proposed Project components” from “associated Project components,” but without explanation. It appears that some components of the associated Project are public improvements (the park and the new street) but the reason for distinguishing between the Project and the parking is unclear, especially since the parking spaces are distributed throughout the Project area.

The status of Blocks 8 and 9 are also unclear. Table III-1<sup>2</sup> shows no development on Block 8. The text indicates that Block 8 is a fallback site for the Sears Auto Center.<sup>3</sup> Does this mean that Block 8 will be dropped from the Project if the Auto Center is rebuilt on Block 9, and vice versa? Or will the site host additional development that is in some way associated with the Project? If it is reasonably foreseeable that both sites will be developed, the full development program must be evaluated in this EIR. In addition to concerns that piecemeal environmental review understates impacts, there is the possibility that the ninth block would be developed for a substantial amount of additional retail use to fully serve the new Uptown residential neighborhood. If it is foreseeable that the development of blocks 9 and 10 would result in a 9-block project with 25% or more retail use, the EIR must not rely on AB436 exemptions.

2

**REQUESTS**

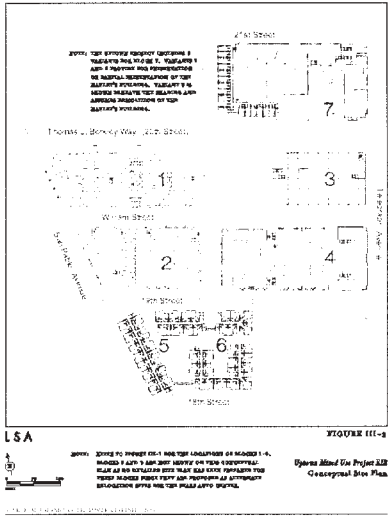
- 1. Explain differences between Project components and associated Project components.
  
- 2. Provide information about the development of blocks 8 and 9 explain how the City expects to provide environmental review of the entire 9-block Project.

**Mismatch between Intended Use of EIR and Level of Information Provided**

The City intends to use this EIR “for all discretionary approvals necessary for the Project,”<sup>4</sup> which we must assume includes project level review of all entitlements. However the DEIR provides only a bare outline of the development program—for the Sears Auto Center (that it will include “approximately 10,000 square feet of retail space for the auto center and 50 on-site parking spaces”). Neither block 8 nor block 9 is included in Figure III-2 illustrating the conceptual site plan.

3

<sup>1</sup> DEIR page 1  
<sup>2</sup> Page 42  
<sup>3</sup> page 45  
<sup>4</sup> page 48



**REQUEST**

3. Provide project-level information about blocks 8 and 9 or commit to providing supplemental environmental review.

**3**  
**cont.**

**Application of AB 436 (Public Resources Code 21159.25 to Cumulative Analysis**

The DEIR states that it includes an analysis of cumulative impacts even though provisions of AB436 exempt the this Focused EIR from that requirement.<sup>5</sup> We believe that the cumulative impacts analysis must comply with CEQA, even if it is not required by CEQA. A certified EIR containing an inadequate or inaccurate analysis could create misunderstanding and confusion, especially if cited in subsequent environmental review analyses.

**4**

**Ensure that LUTE EIR mitigations are implemented by the Uptown Project.**

Although this DEIR states that it incorporates mitigation measures required by the 1998 Land Use and Transportation Element EIR (LUTE EIR),<sup>6</sup> it appears that some have been overlooked.

LUTE Transportation Mitigations - Appendix A, for example, is uninformative about transportation mitigations<sup>7</sup> because it does not specify what the improvements are. The transportation mitigation in its entirety states:

**3.1: Implement roadway improvements and transit improvements to reduce congestion on arterial roadways.**

**5**

**REQUESTS**

4. Describe the improvements to arterials that the City is committed to implementing, and report on the City's achievements since 1998, as determined by the mitigation monitoring process.

<sup>5</sup> page 3  
<sup>6</sup> Page 3  
<sup>7</sup> Appendix A, page S-2

5. Determine if traffic mitigations proposed for the Uptown Project might conflict or be inconsistent with improvements required by the LUTE EIR. We are particularly interested in an analysis of the combined effects – both direct and indirect –on Chinatown pedestrians and traffic patterns.

5  
cont.

LUTE Public Service Mitigations - The scope of the Focused EIR<sup>8</sup> does not address public services impacts even though the LUTE EIR requires analysis and further mitigation of such impacts as part of the approval process of major land use decisions in the Downtown.<sup>9</sup> These requirements must be incorporated into environmental review of project approvals. As a major project in the Downtown, the Uptown Project is required to address its effects on service levels citywide. For example, Mitigations D. 5 –1 a – e, copied below, require an analysis of the citywide impacts of the Project's demand for Police, Fire, Library, and Recreation services. (Some of these mitigations reappear in Mitigations D 6, 7, and 8.)

D.5-1a: In reviewing major land use or policy decisions, consider the availability of police and fire protection services, park and recreation services, schools, and library services in the affected areas, as well as the impact of the project on current service levels.

D.5-1b: Develop target ratios of police officers and firefighters to population for annual budgeting purposes. These ratios should be used to assess the feasibility and merits of service fees on new development which finance additional police officers and fire fighters

D.5-1c: Increase police foot patrols and cruisers in high visibility downtown areas and locate funding sources to support them.

D.5-1d: Analyze the distribution of services provided by the public and privately operated civic and institutional uses, identify underserved areas of the City and increase services in these areas.

D.5-1e: Solicit comments from the Oakland Police and Fire Departments on major new development proposals to ensure that law enforcement and fire protection impacts are appropriately addressed and mitigated.

6

It is possible that the Notice of Preparation anticipated the necessity to include service impacts in the EIR: included on its list of Probable Environmental Effects is “utilities and service systems.”<sup>10</sup> However, the DEIR Scope transforms this topic into “utilities and infrastructure,”<sup>11</sup> The Table of Contents takes this focus on facilities (to the exclusion of services) a step further by listing the topic as “Infrastructure and Utilities.”

Concerns about the Project's potential impacts on City services are heightened by the fact that most of the property tax revenues generated will be dedicated to the Redevelopment Agency as tax increment funds which will not be able to pay for City services, not even for maintenance of new park associated with the Project.

<sup>8</sup> Pages 3 and 51

<sup>9</sup> Appendix A, page S-11

<sup>10</sup> Appendix A-2, Notice of Preparation page 3

<sup>11</sup> Page 51

In addition, the LUTE EIR suggests that a child care center should be included in projects such as Uptown that provides a substantial amount (40%) of family housing.

**D.7-1d:** Where feasible and appropriate, encourage the inclusion of child care centers in major residential and commercial developments near transit centers, community centers, and schools.

**REQUEST**

6. To ensure implementation of mitigations required by the LUTE EIR, expand the scope of the EIR to address Project impacts on City services.

**6**  
**cont.**

**Transportation Issues**

Study Area – The Study Area includes intersections almost exclusively to the North of the Project<sup>12</sup> even though the map showing trip distribution allocates the greater proportion of local trips to the Project’s south<sup>13</sup> - to Chinatown in particular.

Especially for the analyses of 2010 and 2025 conditions, with and without the Project (the cumulative traffic analysis), it is necessary to define a study area that is large enough to capture secondary impacts of the Project, including its contribution to congestion patterns that divert drivers from using direct routes. Chinatown streets are at particular risk from the combined effects of the Uptown Project, Jack London Square Redevelopment, and City of Alameda redevelopment.

**7**

**REQUEST**

7. Extend the Study Area to include intersections along Broadway, Franklin, Webster and Harrison streets in Chinatown.

Freeway segments – Impacts on the freeway system will extend to existing bottlenecks beyond the immediate junctions and ramps listed in Table IV.D-17.<sup>14</sup> Weekend conditions should also be included.

Limiting the portrayal of existing traffic on both regional and local roadways to weekday peak hour conditions gives an incomplete picture of baseline conditions that the Project could impact. Information should be added on daily traffic volumes since the spreading peak limits mitigation options. Weekend data is needed because congestion has become severe and is projected to get worse.

**8**

**REQUESTS**

8. Include the junction of 880, 80, and 580, junction of 880, 980, and 24, and the Bridge toll plaza in the analysis of existing conditions.

9. Provide data on daily conditions for both weekdays and weekends.

<sup>12</sup> Figure IV.D-2, page 87

<sup>13</sup> Table IV.D-8, page 110

<sup>14</sup> page 107

Trip Distribution

(4) **Trip Distribution.** Vehicle trips forecast to be generated by the proposed Chinatown Project were assigned to the surrounding transportation network based on a distribution pattern developed specifically for this study. The pattern is based on information from the ACCMA Model. Figure IV.D-8 illustrates the Project's anticipated trip distribution pattern.

The DEIR description<sup>15</sup> above on the trip distribution methodology withholds more information than it provides. No further information on the methodology is provided in Appendix E, which is comprised only of the LOS calculations. The lack of information about assumptions and methods used to distribute trips deprives the public of the opportunity to comment on these issues during the DEIR comment period.

The cursory reference to the trip distribution calculations is followed by an unfathomable diagram.<sup>16</sup> Nonetheless Figure IV.D-8 seems to indicate that Chinatown will receive more of the local traffic generated by the Project-- a total of 14% - than anywhere else. Yet there is no analysis of the impacts of this traffic on Chinatown intersections and pedestrian conditions.

9

It also appears from the diagram that Project traffic in Chinatown will be making turns in areas of high pedestrian use, which could worsen existing pedestrian hazards, especially to sensitive populations of children and the elderly.

**REQUEST**

10. Analyze impacts of Project traffic on Chinatown traffic, air quality, and noise. Include an analysis of impacts that would exacerbate existing pedestrian safety problems. The analysis should not be limited to measuring increases in vehicle volume, but should consider the impacts on pedestrian safety of turning vehicles, and increases in delay for pedestrians waiting for signal changes.

Criteria of Significance - Although the list of significance criteria recognizes that hazards to pedestrians could be represent an impact, the definition is overly narrow in its exclusive focus on design features.

**REQUEST**

11. Due to the current unacceptably high rate of pedestrian collisions in Chinatown and the high proportion of the Project's local traffic that will be traveling through Chinatown that could aggravate the problems, the EIR needs to consider any potential increase in pedestrian hazard to be a significant impact, whether caused by the Project itself, or cumulatively with other development.

10

Traffic Mitigations - The DEIR limits traffic mitigations to measures that increase traffic capacity and it ignores actions that would reduce the number of vehicle trips. The measures in general favor motorists, probably at the expense of pedestrians and bicyclists. Optimizing signal timing, as proposed in almost all of the traffic mitigations, is based on optimal conditions for drivers, not pedestrians. Although the DEIR concludes that there are no adverse impacts to the timing changes, it does not include an analysis that supports this conclusion in any instance where it is proposed: specifically, TRANS-1, 2, 4, 5, 6, 7, 8, 9, 10, 12, 13, and 14. The DEIR conducts the entire discussion about relieving increased delay for motorists as if pedestrians do share the streets.

11

<sup>15</sup> page 109

<sup>16</sup> page 110



**REQUEST**

12. Analyze the impact on pedestrians' level of service of all proposed signal changes by analyzing increased delay for pedestrians crossing streets.

**11**  
**cont.**

Parking – Since the courts do not consider parking shortfalls (less than full demand) to be an environmental impact, and since the DEIR (properly) does not include a significance threshold for parking impacts, it is unclear why the document assumes that parking shortfalls could impact the environment. By considering parking shortfalls to be a potentially significant impact, the DEIR is able to present the Project's *excess* parking ( it provides more parking than the City requires) as a virtue and avoid discussin its contribution to traffic congestion.

This Project has been represented to the public as a transit-friendly, anti-sprawl development. Its urban densities and proximity to transit surely enable it to become such, but that advantage is dissipated by the inclusion of 1,959 parking spaces plus street parking for a Project that is required only to have 1,620 spaces. The modal split assumptions used in the trip generation calculations (83% non-transit trips) appear to recognize that Project residents will drive their easily parked cars rather than take advantage of convenient transit.

**12**

**REQUEST**

13. Estimate improvements to the rate of transit usage that could be achieved by a substantial reduction in the Project's parking.

**Housing Issues**

The DEIR states in the text<sup>17</sup> and tables<sup>18</sup> that the Project will develop 2,320 housing units, including 250 (10.8 %) affordable units. California Redevelopment Law requires 15% of new housing units to be affordable, although it does not require their inclusion within the project itself, or even the redevelopment project area.

However, the actual number of housing units (as defined by the Census) in the Project is unclear because the text refers also to student "beds". It is unclear how many housing units the 1,000 student "beds" will comprise. For example, if these beds are clustered around shared kitchen facilities, the number of units would probably be the number of kitchens. If the students take their meals independently, then the number of beds would be the number of rooms.

**13**

It is also unclear whether the faculty units would be considered affordable under California Redevelopment Law.

**REQUEST**

14. Clarify the total number of housing units in the Project and the number that can be considered affordable under Redevelopment Law. If additional affordable units are required that will be developed off-site, analyze potential impacts they might generate.

<sup>17</sup> page 74  
<sup>18</sup> page 75

**Cultural Issues**

Chinatown artifacts – The area where Oakland was settled by early Chinese residents (identified in the DEIR as San Pablo between 19<sup>th</sup> and 20<sup>th</sup> Streets<sup>19</sup>) should be fully characterized before excavation begins. The proposed mitigation of on-site archeologists is insufficient for a site where the probability of valuable artifacts is so great

**REQUEST**

- 15. Include a full study of the site of early Chinese settlement in the Final EIR..

**14**

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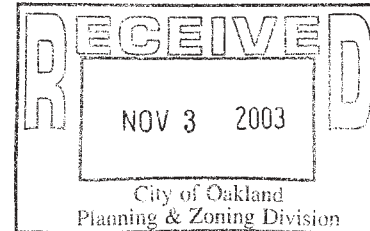
<sup>19</sup> page 214





November 3, 2003

Lynn Warner, Planner IV  
City of Oakland Community and Economic Development Agency  
Planning and Zoning Division  
250 Frank H. Ogawa Plaza  
Oakland, CA 94612



RE: Draft Environmental Impact Report for the Uptown Project  
Case File Number ER03-0004

Dear Ms. Henderson:

Oakland Heritage Alliance appreciates the opportunity to comment on the DEIR for the Uptown Project.

The first section of this letter pertains to the general process for the EIR and related meetings. The second section addresses historic and cultural resources.

OHA is leaving most comments on air quality, affordable housing, open space, parking, and transportation to others interested in these topics. We feel that these are important factors, which may have effects on historic areas, but are limiting this letter to the issues with which our organization is most familiar.

#### **PART I: DEIR REVIEW AND APPROVALS**

##### **PHASED REVIEWS AND APPROVALS**

Because the developer frankly admits that plans are somewhat uncertain for some of the parcels involved in this project, we object to the blanket approval of this EIR as a general green light to move forward on those components. AB 436 notwithstanding, there must be a clear, public mechanism for revisiting this project's environmental impacts as each phase of construction is contemplated, since the present project description leaves unanswered questions. There must be a review of the design features and project effects before each part of the project proceeds. These reviews must occur in public, such as before the Planning Commission, not behind closed doors in staff offices. While current staff may be highly competent, there is no guarantee of institutional memory, nor of the hoped-for high quality of review, in an era of severe budgetary restriction at the planning department.

We are particularly concerned about parcels 5, 7, 8 and 9, for which planned projects are extraordinarily ill-defined, which Forest City says they themselves may not design, develop, nor build, and

which seem to pose the possibility of enormous effects on the surrounding historic buildings, on traffic, on density, on open space, on demand for public services, and on the economic viability of the project. These parcels should be singled out for either a revised draft or a supplemental EIR as they are more defined and the issues become clearer. This EIR is inadequate and incomplete in assessing their impacts upon the potentially important and known important historic resources. It may also be inadequate because the descriptions of the projects on these parcels, are so vague as to be meaningless. The high-rise and other planned buildings on these parcels require much further study. Why, when the developer clearly is most interested in the core area of residential construction on the two large blocks between 19th and Thomas Berkley Way, Telegraph and San Pablo, should this area be widened to incorporate areas which are already built upon and functioning? Redevelopment should not be viewed as carte blanche to demolish large tracts of occupied city blocks. Incremental private development is a better mechanism for making progress in these borderline areas.

1  
cont.

**INSUFFICIENT DISTRIBUTION OF NOTICE FOR DEVELOPER-SPONSORED MEETINGS**

Related public discussion meetings held this fall by the developers and attended by city staff were inadequately noticed, with resultant poor attendance. No flyers were left at area businesses for distribution to their customers; many uptown Broadway businesses were completely unaware of this project's progress, even though it may have enormous impacts upon them, and neighborhood organizations did not seem to know about the meetings, except for one or two immediately local ones and businesses impacted by the threat of eminent domain. The radius used for supposedly neighboring businesses was much too small. In addition, the meeting notices came out quite a bit too late for people to make plans to attend. OHA representatives found that we were spread thin trying to attend both the uptown meetings and the several other meetings and events which directly competed with it. This was most disappointing, particularly in comparison with earlier meetings which had approximately 10 times the turn out. We know that citizens of Oakland are interested in this project. We had asked repeatedly, months before, for projected dates for these meetings.

2

**DEIR INADEQUATE, INCOMPLETE IN THESE RESPECTS**

The inadequacy of the mitigations for impacts on the historic and cultural resources should be remedied in the final EIR. There should be a clear statement of the mechanisms for further review of the ill-defined projects on parcels 5, 7, 8 and 9.

**PART II: HISTORIC AND CULTURAL RESOURCES**

*Inadequately or not at all studied in this DEIR analysis, and subject to very significant impacts:*

**• THE GREAT WESTERN POWER BUILDING: DEMOLITION UNACCEPTABLE, IMPACTS POTENTIALLY TOO GREAT**

The demolition of this building is completely unacceptable to Oakland Heritage Alliance and its members. Particularly in view of its new ownership, with an owner who plans to do an attractive restoration of the facade, there is no excuse for planning any demolition on this site. The DEIR fails completely to discuss the impacts a large, as-yet-undesigned building, might have on the Great Wester Power Building. The EIR must address an appropriate and sensitive

3

design, should a building go forward on the site, not just butting up against (and shading) the historic building, but relating to it in a sensitive and appropriate manner. Since this project is vague and not well worked out, it is almost impossible to address it. The entire block between 20th, 21st, San Pablo and Telegraph should be studied in a further focussed environmental review, with discussion of urban planning issues, impacts, mitigations, and proposed design criteria.

**3**  
**cont.**

The shade impacts seem to be severe, and the simple assertion that “the facade does not contain complex detailing” may not really be true, and does not excuse the impacts. The EIR must study an alternative that would be kinder to this building.

**4**

OHA believes that other buildings on this block are worthy of study and retention, in order to avoid the tendency for redevelopment districts to successively sprawl, demolish, and empty out regions of the city. Oakland’s experience in this regard has been that areas of the city, once vacated and demolished (even with excellent intentions on all sides), tend to remain blighted and vacant for decades thereafter. There should be no demolitions permitted, and no pushing out of viable businesses, until absolutely necessary—once a project has been fully approved.

**5**

Should the decision go forward to demolish the Great Western Power Building (which we would stoutly oppose), the proposed mitigations are far too weak to have much impact. We would propose that should such a demolition go forward there would need to be a really significant mitigation, such as a substantial funding of improvements to remaining historic buildings in the uptown area.

**6**

The case has not been made for a necessity for any demolition on this block; the entire issue must be revisited with a supplemental focussed EIR.

**7**

• **THE 19TH AND SAN PABLO DISTRICT: UNACCEPTABLE LOSSES**

Goals 1., 2., 7., 8., 11., and 16. (pages 41-42 of DEIR) could be served well by retaining some of the historically interesting buildings on the site. The small-scale buildings at 1958-60, 1966-68, 1972, 1998 San Pablo Avenue could be restored and retained as part of the planned development. This would provide a better transition between the project and the spectacular historic resources across San Pablo (See photo, page 211). It would reinforce the project’s incorporation into the urban fabric, helping it to avoid that “plopped down” feeling, and would provide some interesting spaces for retail, community, live-work, or entertainment uses on a small scale. We have provided an attachment, showing how the buildings could fit in quite well with the planned scale of the proposed development on that block. Incorporate the buildings rather than demolishing them.

**8**

We question the wholesale demolition of the resources across the street in the area of the former Royal Hotel. We fail to understand the reasoning that the small buildings at 1958-1998 can be cheerfully included in an unnecessary demolition because they are part of a district in which, once they are demolished, enough historically important buildings would survive: “These remaining buildings include . . . primary contributors (the Hotel Royal. . .)” when the preparers of this EIR *know full well*, and mention a few pages later, that there is another proposed project which may result in the destruction of other significant buildings at that intersection, *including* the Hotel Royal (pp 226-227). This is like saying, when faced with two slowly sinking ships, that it’s okay to dynamite one because the other one is still afloat, so one ship

will still remain. And then the second ship sinks. It is absolutely not acceptable to demolish this whole area, in a continuation of the egregious losses that started with the unwarranted demolition of the former cathedral. There is a point at which redevelopment becomes highly destructive of the city's distinctiveness. Because it is incremental, it is easy to make the argument that no single step is doing any significant damage. But the damage is done, nonetheless.

**8**  
**cont.**

The mitigations are inadequate. Documentation doesn't really mitigate such losses. Establish a mitigation fund for improving buildings which are retained; consider establishment of some kind of protective zoning or historic district buffer zone to protect areas just to the north of this area, so that the historic Victorians, the First Baptist Church, and the YMCA can survive in a good relationship to each other, and continue to provide visual interest and a feel of connected historic fabric.

**9**

We specifically requested that the DEIR look into the possibility of incorporating the small San Pablo buildings into the project; we regret the refusal to do so, and request that such an alternative be presented as part of the final EIR. In our scoping letter, we said, and we still believe that an adequate EIR must include:

" . . . study alternatives that retain these buildings and the adjoining barbecue restaurant at the corner. These small but interesting buildings can provide visual transition into the project, integrate it better into existing streetscapes and encourage the creative reuse of historic buildings just outside the project area. New residents will appreciate these remnants of their neighborhood's past, and because of their relatively small footprint, it should be possible to include them in the site plan."

**10**

One aspect of sustainability is to re-use extant buildings rather than turning them into landfill. We believe these buildings at 20th and San Pablo could provide a real opportunity to help knit the project into its context, and to provide some historic urban interest in the context of these huge blocks of new construction. It seems eminently possible to include them in the project.

• **THE FOX OAKLAND THEATER: LEAVING SPACE FOR EXPANSION OF BACKSTAGE AREA**

The EIR is incomplete in its remarks concerning the Fox Oakland Theater (page 230). Issues of potential conflict-of-use with adjoining residential properties must be addressed. Any adjacent use must take into consideration the possibility that truck loading and related theatrical activities might occur, including during the late night/early morning hours. This might bring up issues of: noise, pedestrian safety, ease of large truck access. The issues should be addressed now so that we do not build in an intolerable situation either for potential residents or for commercial users of the theater, should it be used for large productions.

**11**

If the 50-foot-wide minimum area left behind the Fox Oakland Theater means that the site for the proposed mid-rise residential structure behind it needs to be moved west, it would be well worth doing so. The proposed high-rise at 18th and San Pablo is not adequately described, and thus should not control the surrounding land uses. Because the true size and scale of this imaginary high-rise are not known, there should be further study; a supplementary EIR should be prepared if and when more information about this project is available. There could be significant visual effects on the Fox Oakland Theater if this building were to be built to the full height contemplated in the DEIR, and we are concerned that it not provide an incongruous background to the Fox Oakland, when viewed from the East and North. The shade

**12**

impacts, Figure IV.L-9 through 12, upon the surrounding buildings, should be considered seriously as a reason to build a lower building.

**12**  
**cont.**

• **UPTOWN BROADWAY: RETAIL BUSINESSES AT RISK**

Missing from the EIR entirely is any discussion of the worrisome potential for the proposed project to draw energy and people from uptown Broadway businesses. It is surely an environmental effect to hasten the development of the Telegraph retail zone at the expense of Broadway.

**13**

• **PARCEL 9: AN EXAMPLE OF "GOOGIE" ARCHITECTURE**

This site is described as an alternate location for the Sears auto center. We suggest that the extant "googie" hamburger stand is of value, and that it has not been addressed seriously in this DEIR. This building and its business occupant might be incorporated into a future development. This period of playful commercial architecture is just beginning to be appreciated and undergo a renaissance; it would be a mark of Oakland's sophistication to include it in the project rather than demolishing it, and the EIR should address this option. Wise promoters of Los Angeles's civic virtues have begun to capitalize on the presence of such home-grown California googie architecture; we can use buildings such as this one to help Oakland seem an attractive and accessible place. This style can prove attractive to just the young, vigorous people we seek to attract.

**14**

• **VIEW IMPACTS**

Designs for new buildings in the vicinity of the former YMCA (no longer owned by YMCA) building (DEIR page 228) should be required to be sensitive to the view corridors, such that views of and from the building are not negatively impacted. Designs in its vicinity should be appropriate to their location near this historic resource. Figure IV.J-4 shows how this building could disappear from the incoming driver if the new buildings come far out to the sidewalk line and do not step back at all from the street. We request a simulation showing a better design solution. Similarly, the view down 20th St., shown as Figure IV.J-5, not only blocks the stack of the Western Power Building but makes an awkward neighbor to the former Magnin's building. The proposed residential tower on block 5 seems particularly ill-located and too tall. We believe that the mitigations in this section, page 257 are woefully inadequate. For this reason, we believe that a supplemental EIR should be required for the later phase, high-rise components of this project. The design mitigations are ridiculously sketchy, through no fault of the EIR preparers, because the projects remain so ill-defined.

**15**

• **LONG TERM BUSINESSES ARE RESOURCES TOO.**

Missing from the EIR entirely is any discussion of the worrisome potential for the proposed project to draw energy and people from uptown Broadway businesses. It is surely an environmental effect to hasten the development of peripheral zones while sucking the life out of the central city.

**16**

In this connection, the DEIR has completely omitted mention of an important potential resource: the currently-closed-off BART access to the basement of Sears, formerly Capwell's. At one time this was an active entrance, which fostered pedestrian traffic through the store, thus increasing the likelihood that people would see and experience what was in the store, and perhaps even purchase goods there. The EIR should study the potential reopening of this link between BART and Telegraph Ave. It was particularly helpful during stormy weather, when it was open, and provides a way to incorporate Sears into the project.

**17**

Moreover, it is outrageous that so much concern is expressed over the potential relocation of the Sears auto center, and so little over the small businesses on 20th Street (and those removed earlier by the city of Oakland redevelopment agency, at 20th and Telegraph). The history of Oakland in recent years would lead one to believe that locally-owned businesses are more likely to stay around than chain businesses (Carter Hawley Hale, K-Mart, Bank of America). Thus, we should support long time local businesses at least as much, and perhaps even more than national businesses, no matter how large they are. Small businesses are the workhorses of the local economy, yet the redevelopment agency persists in treating them in a somewhat cavalier fashion.

18

• SCENIC VISTAS, VISUAL CHARACTER, AESTHETIC RESOURCES

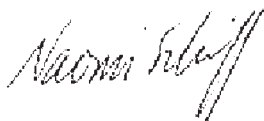
We hold that views of historic buildings can also be scenic (page 242–243). In fact, one of the things Oakland has to offer is an unusual and number of unique and intact buildings of several periods; here in the uptown area we are lucky to have excellent examples of several different styles of architecture. The discussion on page 242 is completely inadequate in ignoring this. In the immediate vicinity of the project, we see a nationally-known example of terra cotta art deco, two excellent examples of early-twentieth century movie palace styles, the unusual Western Power Building, the quaint vernacular commercial buildings at 20th and San Pablo, the 1940s furniture showroom behind the ice rink, the “googie” building mentioned above, the former Mel’s, and so on. These kinds of urban vistas set Oakland apart from some of our less interesting neighbors.

19

The art deco Floral Depot is so prominent and well-known that it has appeared in magazines, is on various walking tours. A replica was built for the Florida Disney World; OHA has photos available of this amazing reconstruction. The proposed project should be required to have a good design relationship to the important buildings at its edges.

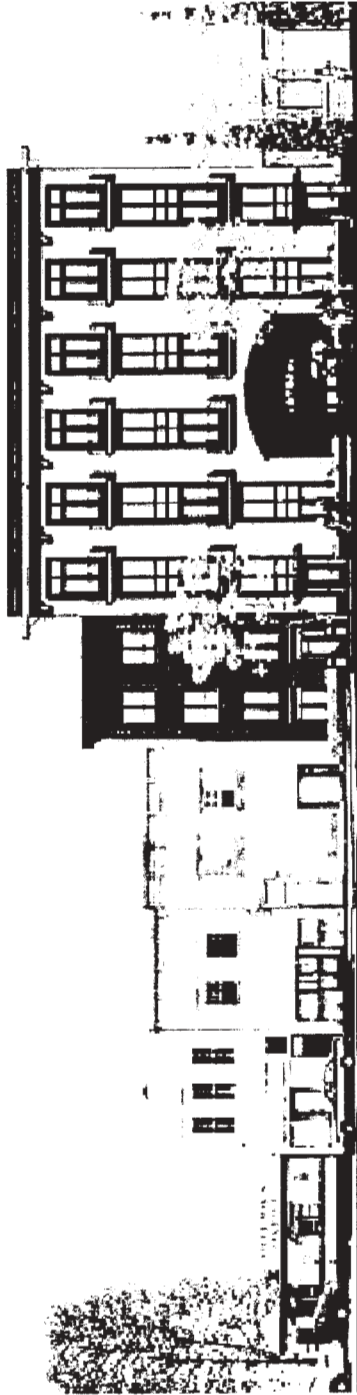
We appreciate the opportunity to comment on this Environmental Impact Report; we look forward to an improved and emended report, and to an excellent Uptown project that allows historic buildings to contribute to its success.

Sincerely,



Naomi Schiff  
Vice President—Preservation Action





View of San Pablo, Thomas Berkley Way intersection, from the west. Incorporates small historic commercial buildings into proposed residential project.

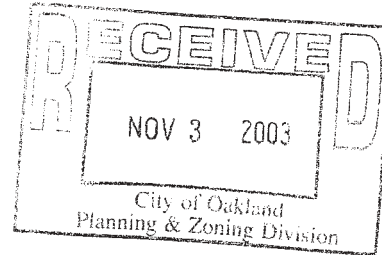


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**Northern Alameda County Regional Group**  
(Alameda-Albany-Berkeley-Emeryville-Oakland-Piedmont-San Leandro)  
2530 San Pablo Avenue, Suite I, Berkeley, CA 94702  
510-848-0800 (voice) · 510-848-3383 (fax)

November 3, 2003

Lynn Warner, Planner IV  
City of Oakland  
Community and Economic Development Agency  
Planning Division  
250 Frank H. Ogawa Plaza, Suite 3330  
Oakland, CA 94612



By fax to: 510-238-6538

Re: Comments on DEIR for Uptown Mixed-Use Project (Case No: ER03-0007)

Dear Ms. Warner:

We are writing on behalf of the Sierra Club, including approximately 5,000 members who are residents and property owners in Oakland. We support infill, mixed-use, relatively dense development within existing urbanized areas that encourages transit use, walking, and bicycling and that minimizes private automobile use. We believe that infill development will help to counteract sprawl and improve the environment and the quality of life for all Bay Area residents.

The relatively dense mixed-use proposal for Uptown Oakland has the potential for revitalizing Oakland's urban core and invigorating the Uptown Entertainment District. Its location near a regional transit node is propitious. The Entertainment District can draw from the whole region, and residents of the proposed project can have access to the region without cars. However, the site planning must be such that residents can have quiet enjoyment of their homes while others are enjoying the lively arts. The possible conflict between these uses has not been addressed in the DEIR.

A key issue of concern to us is that location of the open space should also be studied as part of the site planning. This may be considered a design issue rather than a comment on the Environmental Report, but the location and design of the open space will significantly affect the social environment of this new community. The present location of the planned open space might be appropriate in a suburban community surrounded by similar residential uses. But that is not the case with the Uptown project.

Safe open spaces are ones that can be completely viewed by a cruising police car. We strongly recommend consideration of a linear park along Telegraph Avenue from 19<sup>th</sup> to 20<sup>th</sup> St. This would be a defensible space and also a potential festival space for the Entertainment District. Placing the open space along Telegraph Avenue bordered by mid-rise mixed-use structures on the west between the lower rise residences and the entertainment area would create a buffer between the two uses. Oakland does not have anywhere near the problem of panhandlers and the homeless sleeping on benches and in doorways that San Francisco has.

A wide "piazza" along Telegraph Avenue with cafes, restaurants, book and record stores, and a market hall would create an exciting pedestrian destination. It would give a sense of place, an outdoor living room, for both the residential community and visiting theatergoers. This "piazza" would be lively with students,

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2



November 3, 2003  
Page 2 of 2

day and night, if the graduate student housing is built at 20<sup>th</sup> and Telegraph. In fact, this adjacent open space would make the site more attractive for student housing.

In summary, relocation of the open space along Telegraph Avenue should be studied for the following reasons:

- It would be safer, day and night, and so encourage use.
- It would encourage commercial development along Telegraph Ave.
- Students would have a place to meet and socialize.
- It would provide a festival space for the entertainment district.
- It can resolve the possible conflict between residential and entertainment uses.
- An attractive space adjacent to public transit will encourage the use of transit.
- It would take advantage of our Mediterranean climate and encourage outdoor activities.

Thank you for your consideration of the Sierra Club's views on this important project. We commend the City of Oakland for encouraging new infill development of this kind, which can make an important difference in the vitality and attractiveness of Oakland.



Joyce Roy  
Co-chair  
Conservation Committee



William J. Smith  
Co-chair  
Conservation Committee

**2**  
**cont.**

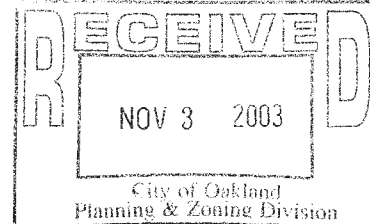
URBAN ECOLOGY



414 13th Street, Suite 500, Oakland, CA 94612 Tel 510.251.5330 Fax 510.251.2117 www.urbanecology.org

November 3, 2003

Lynn Warner, Planner IV  
City of Oakland  
Community and Economic Development Agency  
Planning Division  
250 Frank Ogawa Plaza, Suite 3330  
Oakland, CA 94612



Dear Ms. Warner:

In 1998, the Oakland City Council adopted a Sustainable Community Development Initiative, with the goal of promoting social equity, environmental responsibility, and economic vitality in City and private projects. At the heart of downtown Oakland, the Uptown Mixed Use Project will bring more than 2,500 new residents to an area now characterized by parking lots. Ensuring that Uptown is developed sustainably would demonstrate the City's ongoing commitment to these principles.

In the Uptown draft environmental impact report, the developers note that as an infill, transit-oriented project, Uptown is consistent with Oakland's Sustainable Development Initiative. This is certainly true. However, Urban Ecology believes that the EIR and Uptown Partners should make a specific and verifiable commitment toward employing environmentally sustainable building and design techniques.

Urban Ecology has prepared a list of six low-cost or no-cost strategies that can significantly reduce construction-related waste and improve the quality of life for future residents of Uptown. In addition, these techniques are logical means for the developers to mitigate significant environmental impacts of the project, particularly in relation to air pollution, water quality, hazardous materials, and aesthetic resources.

The current Uptown proposal has improved significantly since it was first introduced. While it is important to move the project along, it is equally important to make sure it is done right. Urban Ecology believes that a greener Uptown will benefit everyone, and we hope that resource-efficient building strategies will be incorporated into the final EIR.

Sincerely,

Nathan James

# 6 Steps Towards a Greener Uptown

“Green Buildings” are structures that are built, renovated, operated, or reused in an ecological and resource-efficient manner. They are a major contribution to improving environmental sustainability and they can be used in the marketing and public relations effort for new development. Employing green building techniques in a prominent project like the Uptown development is a powerful way to demonstrate the City of Oakland’s commitment to sustainability. Using these six no-cost or low-cost strategies would significantly reduce waste and toxicity for the City of Oakland and improve the quality of life of the new residents of Uptown:

## 1. Reduce Water Usage for Landscaping by 50%

Reducing water consumption reduces maintenance expenses as well as decreasing the strain on California’s fragile water resources. By specifying plant species with low water needs that are appropriate for Northern California’s dry climate, Forest City could significantly reduce water used for landscaping and the amount of pollutants that run off into Bay Area water streams. Another landscape strategy that effectively reduces water consumption and costs is the installation of highly efficient drip irrigation systems.

## 2. Use Low-Emitting Building Materials

Poor indoor air quality, caused by the offgassing of chemicals found in many building materials, contributes to high levels of respiratory disease in American children. Specifying low-emitting and formaldehyde-free paint, wood finishes, adhesives, sealants, insulation, carpets, and boards decreases the amount of toxic compounds in the air of the homes of future Uptown residents. Forest City should demonstrate to the City of Oakland that it plans to incorporate these low-emitting materials in the Uptown Development.

## 3. Exceed Title 24 Energy Standards by 15%

Although California’s Title 24 energy performance standards are some of the strongest in the nation, the City of Oakland supports development projects that exceed these standards. Improving energy efficiency is an economically effective choice for the residents of the new Uptown development: lowering utility expenses allows tenants to enjoy minimized financial burdens for years to come. There is a wide range of techniques that improve energy efficiency, but first steps usually involve adding wall and ceiling insulation, installing double-glazed or low-emissivity (low-E) windows, and upgrading to efficient household appliances. Other options to consider include plumbing for natural gas heating, providing hard-wiring for compact fluorescent light bulbs, and adding overhangs to south-facing windows. The Uptown project could be even more energy efficient with the installation of solar water heaters and photovoltaic panels.

## 4. Divert 75% of Construction Waste from Landfills

Construction waste, such as wood, drywall, metal, concrete, dirt, and cardboard, fill millions of cubic feet of California’s landfills each year. Managing this construction waste can be as simple as identifying the types and quantities of waste that will be available and contacting local recycling facilities, youth build programs, or community build groups (like Habitat for Humanity) to identify the conditions required for recycling or donating construction materials. Generally, space at the construction site also needs to be allocated for recycling collection.

## 5. Use Recycled Content Materials for Construction

Four common ways to incorporate recycled construction materials in a project are: re-using form boards when pouring concrete, using recycled content siding (“hardboard”), using concrete with flyash, and using recycled content rubble for backfill around building foundations. Additionally, many interior building materials like gypsum board, linoleum flooring, and carpeting are now produced with recycled content. On a related note, the substitution of engineered lumber for solid sawn lumber significantly decreases a building’s impact on the Bay Area’s old growth forests, since engineered lumber uses smaller-diameter and faster-growing plantation trees. Forest City should demonstrate its commitment to sustainability for the City of Oakland by resolving to specify recycled content materials in the Uptown Development.

## 6. Provide Views and Natural Daylighting in 75% of Indoor Spaces

Giving Uptown residents access to natural light and views will dramatically improve their quality of life, and also reduce their energy demands, since they will less often need to turn on electric lights. Effective daylighting strategies often include skylights and clerestory windows, which provide natural light from above, and vertically-oriented windows, which offer an even distribution of light across a room.

## Notes and Further Resources

### Goal 1: Reduce Water Usage for Landscaping by 50%

- The East Bay Municipal Utility District publishes *Water Conserving Plants and Landscapes for the Bay Area*, an award-winning resource for selecting drought-tolerant plants. For a copy, send \$15 to EBMUD Water Conservation Division, 2130 Adeline Street, Oakland, CA 94607-4240.

### Goal 2: Use Low-Emitting Building Materials

- The "Green Seal" program is an independent, non-profit certification system for green building products. They produce and regularly update lists of low-emitting paints and coatings, and offer investigative reports about particleboard, fiberboard, and lighting fixtures. These lists and reports can be found at <http://www.greenseal.org/>

### Goal 3: Exceed Title 24 Energy Standards by 15%

- More information about California's Title 24 Standards can be found at <http://www.energy.ca.gov/title24/index.html>
- The City of Oakland's Energy Efficient Design (EEDA) Program offers free assistance in energy reduction for new construction projects. Contact Christine Vance at (510) 482-4420 or see [www.oaklandenergypartnership.com](http://www.oaklandenergypartnership.com) for more details.

### Goal 4: Divert 75% of Construction Waste from Landfills

- To obtain a building permit for new construction in Oakland, applicants are required to submit a Waste Reduction & Recycling Plan (WRRP) that demonstrates how the project will reuse or recycle 50% or more of all construction and demolition debris.
- Many Bay Area developers find that recycling construction waste ends up costing less than the transportation and dumping fees to take it to landfills on the urban fringe.
- Projects that deliver loads to facilities that are specifically designed to receive, sort, and recycle mixed construction and demolition debris are eligible for a \$10/ton rebate from the Alameda County Waste Management Authority. Contact Tom Padia at (510) 614-1699 or [tpadia@stopwaste.org](mailto:tpadia@stopwaste.org) for further details.
- For more information, contact Patrick Hayes, Recycling Specialist at the City of Oakland Public Works Department, at (510) 238-6920 or [phayes@oaklandnet.com](mailto:phayes@oaklandnet.com)

### Goal 5: Use Recycled Content Materials for Construction

- The State of California Integrated Waste Management Board maintains a list of recycled-content building materials. The searchable database, along with other reference materials, is available for free at <http://www.ciwmb.ca.gov/condemo/>
- The Alameda County Waste Management Authority maintains a list of locally available green building materials, [http://www.stopwaste.org/Resource\\_Guide.pdf](http://www.stopwaste.org/Resource_Guide.pdf)

### Goal 6: Provide Natural Daylighting in 75% of Indoor Spaces

- The California Public Utilities Commission's Energy Design Resources program offers many resources to help with designing for daylight. See <http://www.energydesignresources.com> for more information.

The City of Oakland's Sustainability Coordinator offers free technical assistance programs to help implement these or other green building strategies. For more information, please contact Carol Misseldine at (510) 238-6808 or [cmiseldine@oaklandnet.com](mailto:cmiseldine@oaklandnet.com)

This fact sheet was produced for informational purposes by:

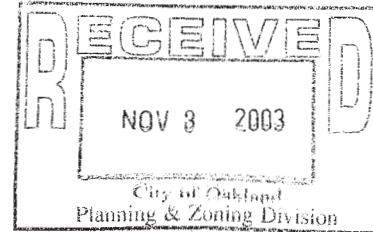


and

URBAN ECOLOGY



City of Oakland Community and Economic Development Agency  
Planning Division,  
250 Frank H. Ogawa Plaza, Suite 3330,  
Oakland, CA 94612



Attention: Lynn Warner, Planner IV

October 31, 2003

Re: Uptown Mixed-Use Project Environmental Impact Report

Dear Ms. Lynn Warner:

My name is Chungkei Tony Fung. I am the operating owner of The Autohouse Car Repair on 565 20<sup>th</sup> Street. I also own the property of 565 20<sup>th</sup> Street. We have been at this location since 1992. Besides being a full service garage, we are also a State certified Smog Check Station. In the proposed map, my property is in block 1 of the Uptown Mixed-Use Project. In this Drafted Environmental Impact Report, there is no mention of environmental impact of relocation of the existing small business like mine.

In the beginning of the year, Community and Economic Development Agency opened the dialogue of acquisition of my property. I was told by different sources, that we would not be relocated within the proximity of this project because of the recent change in zoning. Most of my clients work in the downtown office buildings or travel by BART. Therefore, the survival of my business is location depended. And my present location is ideal. If I were relocated away from the downtown office buildings and from BART, I would virtually be forced out of business. And it will be detrimental for my family and myself.

I feel strongly that it is to the best interest of the Uptown Mix-Use Project, the community and the City of Oakland to include the existing business like ours in the overall planning. We believe that we are providing a vital service to the community and tax revenue to the city and the county. This proposed project adds 1000 apartments and 1050 student living units. These residents need auto repair service. It would have negative environmental impact to exclude us from this project.

This letter is an addition to my verbal comments at the public meeting by Oakland Planning Commission conducted on October 15, 2003 in Hearing Room #1 in City Hall.

Sincerely,

Chungkei Tony Fung, Owner  
The Autohouse Car Repair  
565 20<sup>th</sup> Street  
Oakland, CA 94612  
510-893-5123

1

2

**Cappio, Claudia**

---

**From:** Colland@aol.com  
**Sent:** Monday, November 03, 2003 3:03 PM  
**To:** ccappio@oaklandnet.com  
**Subject:** Uptown Mixed Use Project DEIR

Ms. Cappio:

As I indicated in the October 15 planning commission hearing, I want to again express my concerns about traffic and pedestrian safety impacts the Uptown Mixed Use Project will have on Oakland Chinatown.

The absence of intersections in the heart of Chinatown has to be addressed given the importance of Chinatown streets for local and regional travel. As indicated in the Uptown Mixed Use Project DEIR, Chinatown streets are recognized as being an integral part of the circulation network for this project (9% of local traffic through Chinatown with an additional 3% along Lower Broadway).

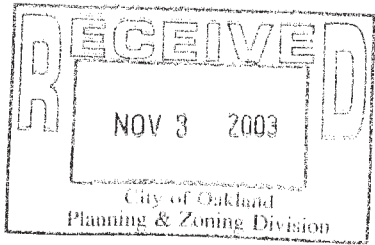
It is necessary and prudent to study and measure the cumulative impacts this project as well as the impacts that the Jack London Square Redevelopment and Alameda Point projects will contribute. Only by doing so will we have a workable means to formulate and execute mitigation measures for this Oakland neighborhood.

Respectfully submitted,

Colland Jang, City of Oakland Planning Commissioner

1





November 3, 2003

Delivered By Hand

City of Oakland  
Community and Economic Development Agency  
Planning & Zoning Services Division  
250 Frank H. Ogawa Plaza, Suite 3330  
Oakland, CA 94612-2032

Attn: Lynn Warner

Re: Uptown Mixed Use Project  
Environmental Impact Report

We are a certified small local business with offices at 593 20<sup>th</sup> Street, Oakland, CA. Our firm has been in the City of Oakland doing business since 1996, and earlier when the undersigned and other colleagues were with a Disabled Veteran Business Enterprise. We do City of Oakland projects and other public and private projects.

The proposed Uptown Development, if implemented, will affect our ability to remain functional and some City projects will likely be affected. The Environmental Impact Report does not address the presence nor does it address the impact on our business and other businesses on 20<sup>th</sup> Street. This is unprofessional and is in direct contradiction to the City's policy of encouragement of small business.

1

When the property transferred hands from the then landlord to the City, we were offered the first choice in buying the property. We did not choose to take the opportunity in view of the uncertainty. The project has now it seems has become a reality and our opportunity to procure was a missed one.

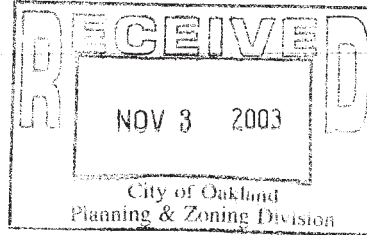
We hereby lodge our protest over the negligent and insufficient report. We would appreciate discussing the impact on our business, financially and otherwise, and the steps for the mitigation thereof.

Sincerely,

Shamir K. Mondle, P.E.  
Chief Engineer/Member  
SKM Consulting Engineers LLC

**Warner, Lynn**

**From:** Nadel, Nancy  
**Sent:** Monday, November 03, 2003 1:34 PM  
**To:** Warner, Lynn  
**Subject:** Comments on Uptown Mixed-Use Project



Historic Properties and Archaeological Artifacts:

A graduate student has brought to my attention the fact that historic Chinatown was at the site in the 1860s (17<sup>th</sup> and Telegraph) and the city made them relocate after a major fire to San Pablo between 19<sup>th</sup> and 20<sup>th</sup> in the 1880s. She states that the buildings on San Pablo slated for demolition might be part of this historic Chinatown and that there might be valuable artifacts of that culture in the vicinity of those buildings. It therefore appears appropriate that we look for an opportunity to relocate at least one of those wooden buildings below 20<sup>th</sup> on San Pablo (perhaps somewhere in the current Chinatown area) that could then be used to exhibit whatever artifacts might be uncovered. If this is not feasible, we should, at minimum, excavate carefully so that artifacts are not destroyed and make them available for the public either at the Asian Cultural Center or other existing city facility that could exhibit them to retain the cultural heritage of the Chinese population at that time which was evidently displaced several times by the city. There is no mention in the report at all about this aspect of the area's history.

1

Traffic Circulation:

Trans-11 "Significant Unavoidable" impacts is the term applied to the area at the West Grand, Frontage Road and Mandela freeway entrance. Another new large development with equal or more units is proposed for the West Oakland area in the near future at Central Station between 10<sup>th</sup> and West Grand on Wood and Frontage Road. There is no cumulative analysis for this problem. In fact there appears to be no cumulative impact analysis at all in this document. Since the writers of the document claim that it would be too costly and complicated to widen the CALTRANS Road, nothing is proposed. Instead, it appears appropriate that the developer should contribute to a fund with the developer of the Central Station site to add to CALTRANS funds to expand that roadway which already has severe backups at rush hour.

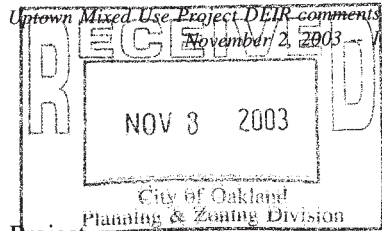
2

Thank you,

Nancy J. Nadel  
Vice Mayor  
City Council District 3



Anna Naruta



Lynn Warner, Case Planner  
City of Oakland Planning Division  
250 Frank H. Ogawa Plaza, Suite 3330  
Oakland, CA 94612

Re: Case File Number ER 03-0007, Uptown Mixed Use Project

The Uptown Mixed Use Project Draft Environmental Impact Report (dated September 2003) is incomplete and inadequate in evaluating the historic and archaeological resources in the project area and proposed inadequate mitigations.

The DEIR (p. 214) reports “research indicates that the east side of San Pablo Avenue between 19th and 20th Streets was a Chinese neighborhood during the 1870s, and archaeological deposits that may exist from this period have the potential to provide information” regarding research questions that, as described, would make it an important cultural resource under CEQA and a significant cultural resource under the National Register of Historic Places criteria for evaluation.

First, the DEIR is incomplete and inadequate in its assessment of early Chinese and Chinese American settlements in the project area. Some of Oakland’s pioneering Chinese and Chinese Americans in 1867 established a settlement centered on the east side of San Pablo between 19th and 20th Streets (Chow 1974:116). This was after they had been burned out of Oakland’s very first Chinatown at 17th and Telegraph, and prohibited by the city from rebuilding. Another city-driven relocation effort in 1869, only partially successful, resulted in the Uptown Chinatown centered at 19th/20th Street and San Pablo producing a related settlement centered at San Pablo and 22nd Street (see attached map). Research shows these early Chinatowns in the Uptown San Pablo area existed from 1867 through at least 1876 (Baker 1914:203-4), and perhaps through 1894 (*Oakland Enquirer* April 7, 1894). Preliminary research with an 1877 photo of the area suggests the buildings in the Uptown Chinatown may have looked like the two-story wooden building shown in the attached photo.

After a second relocation effort in the late 1870s/early 1880s--Chow notes Oakland city fathers again worked to remove Chinese and Chinese American residents from the Uptown Chinatown area in order to redevelop the newly-valuable area for profit--new wooden buildings were constructed in the Uptown project area. Some of these buildings survive intact, and some survive in remodeled form. The project area's buildings and likely archaeological deposits provide a unique opportunity to learn about the early Uptown Chinatowns at this 1880s time of transition and contestation.

Archaeological resources that could characterize these early Uptown Chinatowns would be immensely significant. Such likely-existing resources could include wells or cisterns, refuse pits, latrines, architectural elements, and property-improving elements such as drainage features. The documentary record has so far revealed extremely little about these Uptown Chinatowns beyond their existence. <sup>1</sup> Potential Uptown Chinatown

<sup>1</sup> The accounts so far come from numerous politicians, persons involved in real estate development, and newspaper editors, who described the Uptown Chinatown in terms of it being a blight, but as they also used ‘blight’ to refer to ‘the Chinese’ in general, this is a characterization of the speakers/writers and not the Uptown Chinatown (e.g. *Oakland Tribune* March 13, 1875; Baker 1914: 203-4).

Anna Naruta  
Uptown Mixed Use Project DEIR comments  
November 2, 2003 -- 2

archaeological remains may be considered an important cultural resource under CEQA by virtue of their being

- (1) associated with an event or person of recognized significance in California and American history;
- (2) able to provide information which is both of demonstrable public interest and useful in addressing scientifically consequential and reasonable or archaeological research questions;
- (3) at least 100 years old and [potentially] possessing substantial stratigraphic integrity;
- (4) involves important research questions that historical research has shown can be answered only with archaeological methods.

Potential Uptown Chinatown archaeological remains may be qualify as a significant cultural resource for the National Register of Historic Places, by virtue of their being

- (1) associated with events that have made a significant contribution to the broad patterns of our history;
- (2) associated with the lives of persons significant in our past;
- (3) potentially likely to yield information important in prehistory or history.

Such potential archaeological deposits may likely also qualify for the City of Oakland Local Register Listings, as outlined in the DEIR (p.215), and the California Register of Historical Resources, and therefore be "considered be considered historical resources for the purposes of CEQA review."

Second, the DEIR reports the project area has "a high likelihood of containing historical archaeological deposits (p.213)." Yet the DEIR is inadequate in that it does not convey that it is very probable the ground-disturbing activities associated with the Uptown Project may encounter significant, intact archaeological deposits eligible for listing on the California Register of Historical Resources and the National Register of Historic Places. Documentary evidence and the results of archaeological monitoring in the immediate vicinity of the project area—i.e. two blocks from the Uptown project—indicate that the Uptown project area may contain such significant, intact archaeological deposits. Reports on file at the Northwest Information Center related to this archaeological monitoring project record the high potential this area has demonstrated for containing significant, intact archaeological deposits. The reported on project—which, like the Uptown Project, would disturb historic and more-recently remodeled buildings—hadn't been predicted to still have "soils containing historical materials (NIC file report, 1994:61; see also 34-5). With that prediction of no archaeological remains, the mitigation implemented was to merely have a Qualified archaeologist monitor the demolition and construction's ground disturbing activities.<sup>2</sup> Contrary to expectations, the archaeological monitor found intact archaeological deposits in the immediate vicinity of the Uptown project. He discovered **multiple intact archaeological features and numerous artifacts even below basements of historic buildings, and on properties where 19th-century buildings had been replaced in the mid-20th century.**<sup>3</sup>

<sup>2</sup> Curiously, this mitigation for an area anticipated **not** to have archaeological remains is the same mitigation the Uptown DEIR proposes for an area it reports to have "a **high likelihood** of containing historical archaeological deposits (p.213)."

<sup>3</sup>The large quantity of intact archaeological deposits discovered reveals soil bores were an inadequate method of assessing the presence or absence of intact historical archaeological deposits in the immediate vicinity of the Uptown Project (NIC file reports). The Uptown EIR therefore should not propose soil bores as the discovery method for archaeological mitigation planning.

1  
cont.

2

Anna Naruta  
Uptown Mixed Use Project DEIR comments  
November 2, 2003 -- 3

**From all indications, the planned Uptown construction area is likely to contain intact and significant archaeological deposits relating to early Chinese and Chinese American pioneers in Oakland.** Yet not only are the proposed mitigations appallingly inadequate, Chinese American descendent groups, historical groups, and other potential stakeholders seem not to have been contacted for EIR-scoping comments. The DEIR public comment period should therefore be extended and/or a semi-final EIR should be prepared.

2  
cont.

3

The DEIR is inadequate also in regard to “prehistoric”, or Native American archaeological resources. The DEIR (p. 214) states that a few blocks away from the Uptown project, construction of a building foundation intruded on prehistoric archaeological site CA-ALA-22 and uncovered the burial of a Native Californian person. An archaeological resources investigation prepared for a project in the immediate vicinity of the Uptown project area reported “several [Native Californian] sites” have been recorded “within a three-quarter mile radius (p.13 of 1994 report on file at NIC).” Again, the Uptown DEIR itself notes both that “prehistoric archaeological sites have been recorded in the Project area” and “Several Ohlone villages in the vicinity of the Project area were still inhabited prior to the Peralta land grant.” Given the numerous recorded Native Californian sites, were Native American / Native Californian groups contacted for DEIR-scoping comments? How was it determined that “the Project area has a low-to-moderate likelihood of containing prehistoric archaeological deposits (DEIR p.213)”? Given the unexpected presence of intact historical archaeological deposits in the immediate vicinity of the project, might the DEIR be underestimating (and therefore preparing inadequate mitigations for) encountering prehistoric archaeological remains in the project area?

4

More extensive mitigations must be considered for the likely archaeological deposits, including mitigation measures that would include well-planned archaeological discovery and characterization studies of the area in advance of demolition- or construction-related ground-disturbing activities. (The Anthropological Studies Center associated with Sonoma State University has been very successful in efficiently completing such archaeological mitigations.) Descent groups and other stakeholders should be contacted and their input taken seriously in the early planning stages. A mitigation should be considered to provide for a resource center or small museum in the area of the Uptown Chinatowns to let old and new community members commemorate and learn more about Oakland’s Chinese pioneers and other Uptown predecessors. This could be a real community-builder and anchor in this new development, adding immeasurable value to the project.

Proposed mitigation measures that do not include measures to mitigate the impacts on archaeological remains (e.g. HIST-8, p.227) are inadequate and completely unacceptable.

Finally, the DEIR is inadequate in its assessment of the importance of the above-ground historic resources. To give just one example, in discussing Impact HIST-7 (DEIR p.226), proposed demolition and construction of four Potential Designated Historic Properties in the 19th and San Pablo Commercial District, the DEIR states “the district’s integrity of setting has been diminished by surrounding uses that ‘differ in use and visual coherence’ from the district’s contributing buildings” and “[t]herefore, the Project’s effects on the setting of the 19th and San Pablo Commercial District would not significantly impair the district’s integrity.” It seems difficult to take seriously an argument that if the surroundings of an historic district have subsequently been rebuilt with different uses, the district does not have integrity. The integrity of a historic district with PDHP buildings up to 120 years old and still in their original location seems instead to be emphasized by their age and integrity of location.

5

Anna Naruta  
Uptown Mixed Use Project DEIR comments  
November 2, 2003 -- 4

Sincerely,



Anna Naruta  
Historical Archaeologist  
(For identification purposes only----  
Ph.D. Candidate  
Anthropology Department / Archaeological Research Facility  
University of California, Berkeley)  
P.O. Box 1514  
Oakland, CA 94604  
naruta@sscl.berkeley.edu

Attachments:

- (1) A map indicating early Chinese settlements in the central Oakland area (from Willard Chow's 1974 dissertation on Chinese settlements in the East Bay).
- (2) Copy of a photo that preliminary research indicates may be similar in appearance to buildings in the 19th-century Uptown Chinatown area.

Sources:

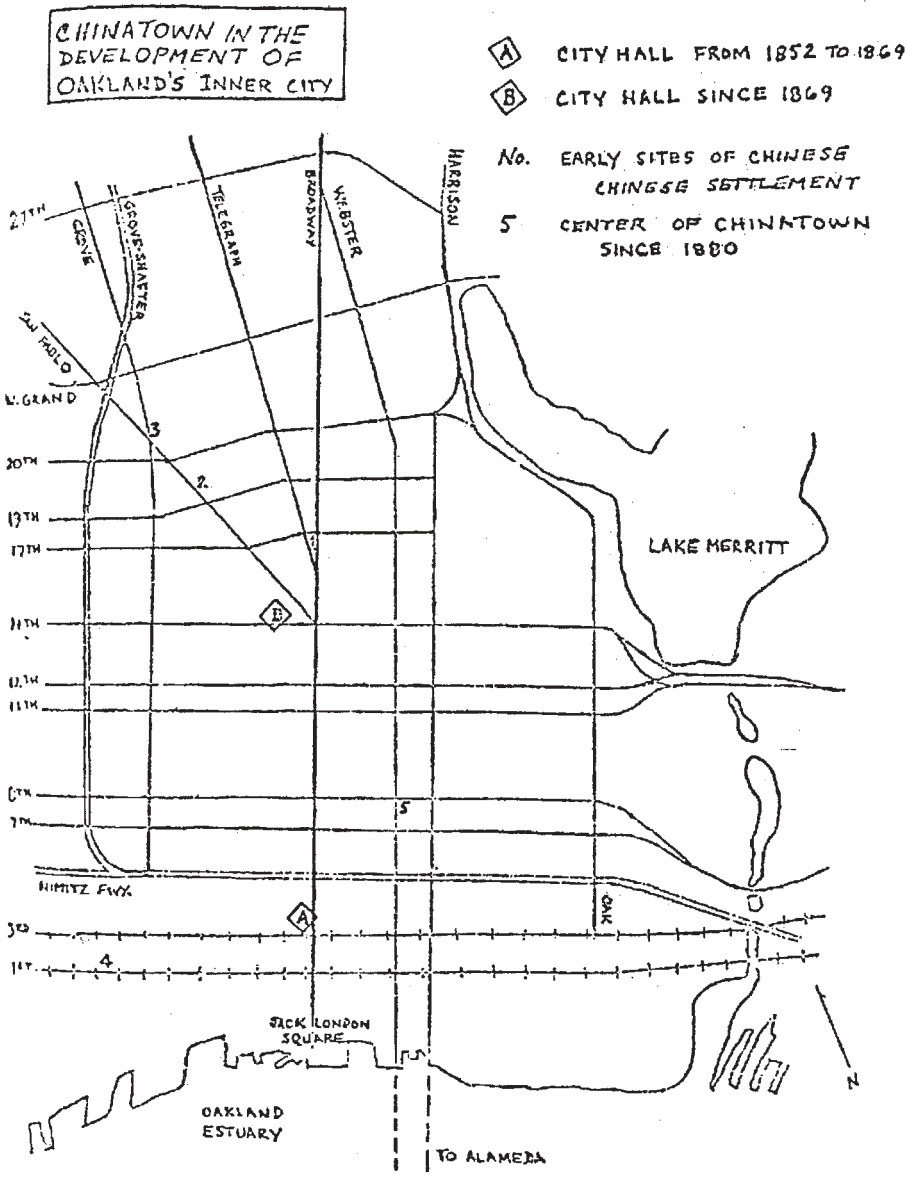
Baker, J. E. (1914). *Past and Present of Alameda County, California*. Chicago, The S.J. Clarke Company.

Chow, W. T. (1974). *The Reemergence of an Inner City: The Pivot of Chinese Settlement in the East Bay Region of the San Francisco Bay Area*. Ph.D. thesis. Geography Department. University of California, Berkeley.

Oakland Public Library, Oakland History Room. Photographic Collection: Oakland Chinatown.

Wulzen, A.H. (1877) Panorama of Oakland, Cal. Oakland Museum of California; Gift of Judge Jos. A. Murphy.

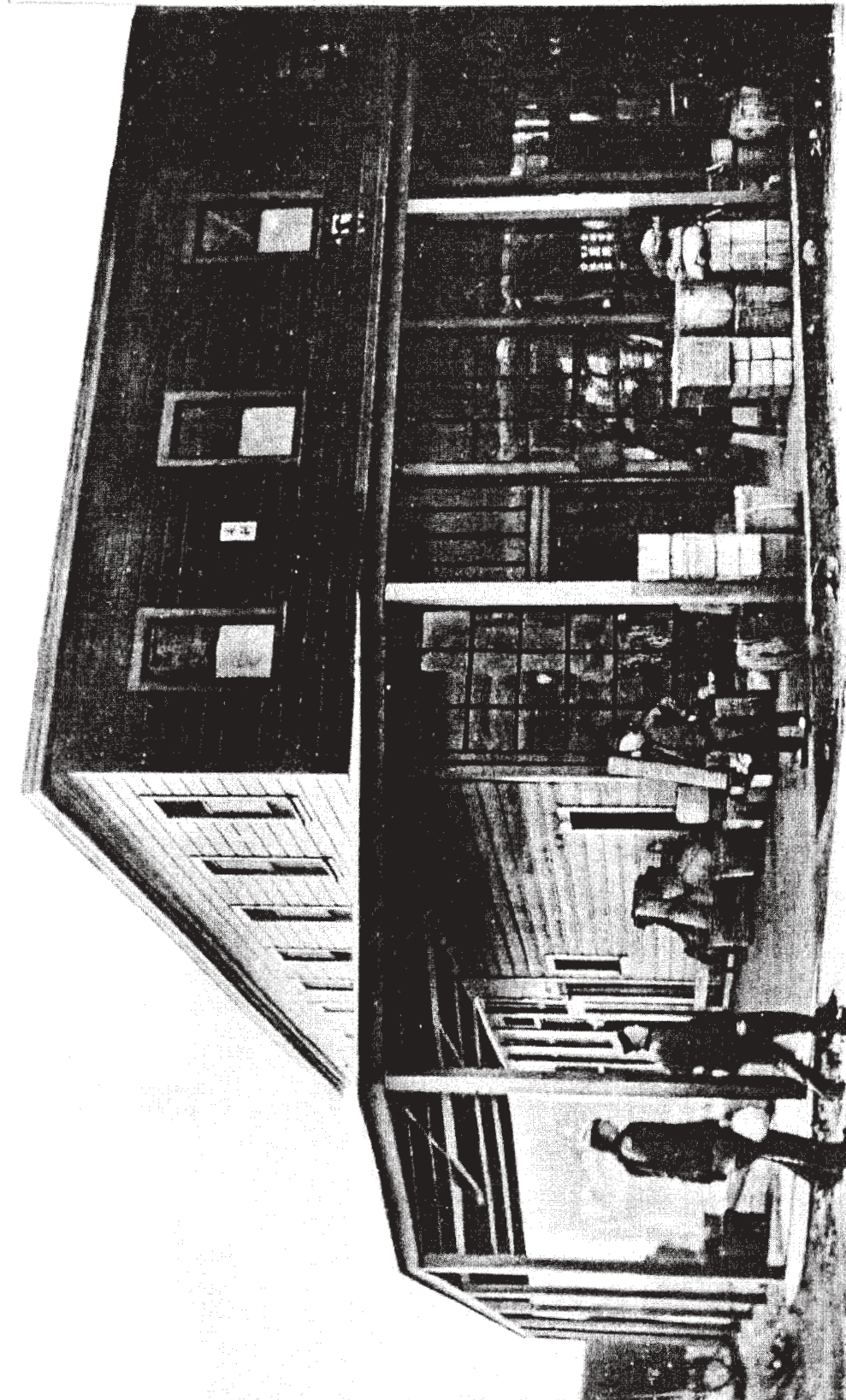
The numbers 2 and 3 on the map below indicate 19th-century Chinese settlements centered at San Pablo Ave and 19th Street, and San Pablo and 22nd Street, respectively. These Uptown Chinatowns were established in 1867 and continued at least through 1876, and possibly through 1894. (Subsequent research reveals additional historic Chinese settlements in Oakland's inner city not depicted on this map.) — AN



Chow, Willard T. (1974). *The Reemergence of an Inner City: The Pivot of Chinese Settlement in the East Bay Region of the San Francisco Bay Area*. Ph.D. thesis, Geography Department, University of California, Berkeley. Map 5, page 118

Copies of Chow's dissertation are available at the Oakland Public Libraries and libraries of the University of California, Berkeley.





China Town

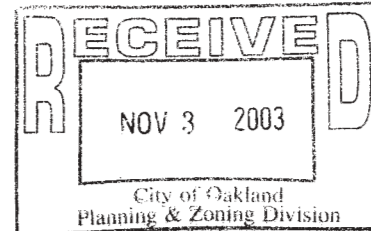
Oakland, Cal.

Preliminary research with an 1877 photo of the Uptown area suggests the buildings in the Uptown Chinatown may have looked similar to this one. The photo above was published as a postcard in about 1910. (Source: Oakland Public Library Oakland History Room)

Letter  
C5  
Attach.

## REVELLI TIRE COMPANY

SINCE 1949  
571-20TH STREET • OAKLAND, CALIFORNIA 94612  
TELEPHONE (510) 444-1222



Attn:  
Lynn Warner  
Planner IV  
City of Oakland

Community and Economic Development Agency  
Planning Division  
250 Frank H. Ogawa Plaza – Suite 3330  
Oakland, CA 94612

October 31, 2003

Dear Lynn Warner,

I am a small Business owner in the Uptown/Forest City Development. My business is Revelli Tire Company at 571-20<sup>th</sup>, Street, Oakland where I have provided tire, brake and front end service myself since 1959(45 years). My father bought the business in 1949, so it 's been in our family for 55years in Jan. 04.

The Draft Environmental Report is deficient because it fails to mitigate in any manner the detrimental effects of this proposed project on a small business like mine.

The Draft Environmental Report fails to define any meaningful project or public purpose for that undefined project.

My business is a longtime neighborhood fixture and there is no basis for an undefined project to eliminate my business operations.

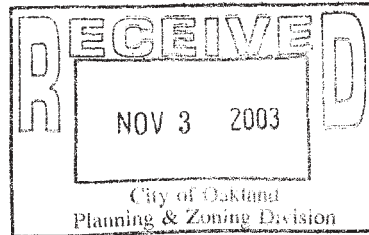
There is no alternative, equal space nearby so therefore I would lose my job,lose my business,and the means to support my family.

This letter is in addition to my verbal comments at the public meeting conducted by the Oakland Planning Commission Hearing on Oct .15, 2003 in Hearing Room # 1 at City Hall.

Thank You,

A handwritten signature in cursive that reads "John M. Revelli".

John M. Revelli  
Owner  
Revelli Tire Company  
571-20<sup>th</sup>. Street  
Oakland, Ca 94612  
(510)444-1222



November 3, 2003

Lynn Warner

Case Planner, file ER 03-0007

City of Oakland Planning Division

250 Frank H. Ogawa Plaza, Suite 3330

Oakland, CA 94612

Re: Comments on the Uptown Mixed-Use Redevelopment Project DEIR

Dear Ms. Warner:

I have been asked to comment on the draft EIR for the above referenced project. I am an archaeologist with over 30 years experience in urban settings in Northern California. I was the archaeologist charged with recovering the remains of San Jose's first Chinatown (1850-1887) when the Fairmont Hotel and Silicon Valley Financial Center buildings were constructed. These buildings were on the site of an extensive Chinese American community not dissimilar to the early Oakland community. In the area of a single large urban block, we found dozens of significant historic archaeological features. Only the extensive pre-project planning that identified the potential archaeological deposits and developed a program for systematic recovery when discoveries were made prevented significant delays in these projects. Without a similar level of planning, you will undoubtedly face delays and problems during the construction of the proposed project.

Archaeological monitoring can be an appropriate approach to the recovery of archaeological features, but considerable planning is required for the monitoring process to succeed. Several examples of factors that must be considered:

1. Monitoring must be adequate to the magnitude of the project.
2. The monitor must be able to stop excavation in areas where discoveries are made.
3. The Project Archaeologist must be able to commit additional resources as soon as discoveries are made.
4. Recovery of archaeological features needs to be undertaken efficiently in order to avoid project delays.
5. Lack of cooperation from the project sponsor will only increase the cost of archaeology and the amount of delay from archaeological recovery processes.

If these factors are not fully considered, the project will not proceed efficiently, historic resources will be unnecessarily damaged or lost, and a part of the historic fabric of Oakland will be rent.

I strongly encourage a reexamination of the archaeological monitoring program to insure that adequate attention has been paid to the identification and recovery of archaeological features in a timely and efficient manner. Any other approach assures either the loss of important cultural sites, or unnecessary delays in construction of the project.



---

It is possible to undertake this project with no delays due to archaeological or historic discoveries, and to still find and recover any encountered features or sites. Any other approach will absolutely insure additional expenses, time delays, negative publicity, and a host of other problems.

I emphasize again that casually assuming that the presence of an archaeological monitor will adequately address the potential problems is an approach absolutely guaranteed to cause delays and problems. When problems surface, additional delays will ensue as decisions are made and approaches developed. Thorough archaeological planning prior to initiation of earth disturbing activities will insure a minimum of surprises during the construction project.

Thank you for this opportunity to comment on the draft EIR for this project. If I can answer any questions, please contact me at 707-762-2573.

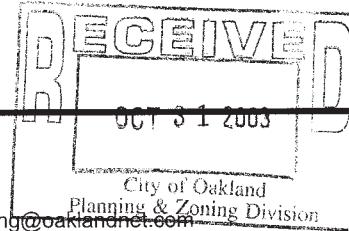
Sincerely,

William Roop  
Partner, ARS

**1  
cont.**

**Warner, Lynn**

**From:** Wong, Howard [Howard\_Wong@ci.sf.ca.us]  
**Sent:** Friday, October 31, 2003 3:23 PM  
**To:** lwarner@oaklandnet.com  
**Cc:** dwan@oaklandnet.com; jquan@oaklandnet.com; hchang@oaklandnet.com  
**Subject:** CAUTION NEEDED ON UPTOWN MIXED USE REDEVELOPMENT PROJECT (ER 03-0007)



TO: Lynn Warner, City of Oakland Planning Department  
CC: Councilmembers Danny Wan, Jean Quan, Henry Chang  
RE: UPTOWN MIXED-USE REDEVELOPMENT PROJECT, Case File No. ER 03-0007

I am alarmed that the "Forest City Project" could cause the demolition of parts of Old Chinatown, with roots back to the 1860's---without meaningful wider-ranging and legal considerations. Unfortunately, many American cities, as well as foreign nations, have learned from horrible mistakes that the "Demolition of History" is irreversible and detrimental to community/ economic vitality. In the relatively youthful west coast of the United States, we have far fewer historic resources to chronicle our lineage. Especially for Chinese America, the few significant historical resources, which exemplify the difficult journey to American enculturization and success, should be preserved.

From a Developer's perspective, preservation of history can increase the value of the project. This has been proven, over and over again, in Washington DC, Shanghai, Jerusalem, Paris, San Francisco..... The incorporation of old historic architecture into the Uptown Development Project would build on, rather than dismantle, the historical values that strengthen community and economic values. For example, even Marysville---a small California Town--- is working to restore the old Bok Kai Taoist Temple (1880) and its old Chinatown as a Chinese Cultural Village. Washington DC is currently expanding its Chinatown. Historic Boston, Philadelphia, Williamsburg, Savannah, Charleston etc. revive the historical elements that attract visitors and economic vitality.

The old Oakland Chinatown in the uptown San Pablo area has origins in the 1860's. Ironically, past governmental agencies have attempted to dismantle Chinatowns for political reasons and special interests. It would be so tragic to lose these vestiges of Chinese American history now, after staving off political attacks for so many decades.

Aside from just good urban planning and sensitivity to cultural history, national, state and local planning/ zoning historical codes need to be considered. Old Oakland Chinatown is definitely eligible for the National Register of Historic Places. Oakland's history is one its unique attributes that is being gradually lost. Oakland must reinforce the historic resources that give it a sense of Place, while many critics have cited "There is no there, there". Well, there are historical roots there---and these are the basis for building a stronger sense of community.

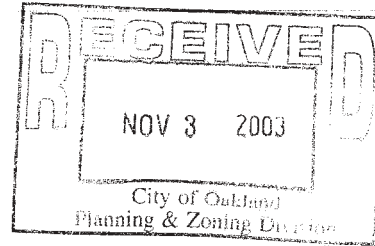
Many organizations can provide extensive information about the historical value of Old Oakland Chinatown, e.g. the National Trust for Historic Preservation, San Francisco Architectural Heritage, California Preservation Foundation, numerous Oakland community organizations, Chinese Historical Society of America..... Please incorporate a wider range of participation into the planning and EIR process.

Feel free to contact me for any assistance at (415)-557-4759.

Regards,  
Howard Wong, AIA  
(For identification purposes only---  
Chinese Historical Society of America, Board Member;  
San Francisco Architectural Heritage, Board Member;  
A Better Chinatown Tomorrow, S.F., co-Chair).

**Warner, Lynn**

**From:** Pezyee@aol.com  
**Sent:** Monday, November 03, 2003 8:17 AM  
**To:** Lwarner@oaklandnet.com  
**Subject:** ER 03-0007



Lynn Warner  
Case Planner for Case File Number ER 03-0007  
city of Oakland Planning Division  
250 Frank H. Ogawa Plaza, Suite 3330  
Oakland, CA 94612

Dear Ms. Warner:

I oppose any razing of the historical Chinatowns on 17th and Telegraph and San Pablo between 29th and 29th street. All efforts were not made to inform interested parties.

The developers' own DEI Report notest the project area has "a high likelihood of containing historical archaeological deposits (p. 213)." Despite this, the developers plan to raze the area with only an archaeologist to watch their destruction of these important artifacts.

Every possible efforts should be made to preserve the Chinese and Chinese American pioneer's artifacts by allowing trained professionals to remove them prior to demolition and redevelopment. The developers should provide funds to rehab the 1883 building to preserve as a historical site.

Sincerely,  
Ann G. Yee

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**COMMENTATORS AT THE OAKLAND CITY PLANNING COMMISSION PUBLIC HEARING FOR THE UPTOWN MIXED USE PROJECT**

October 15, 2003; Hearing Room 1, City Hall, 1 Frank H. Ogawa Plaza, Oakland

Public individuals spoke first, followed by Planning Commissioners.

**Public Individuals**

**John Revelli.** Introduced himself as the owner of Revelli Tires on 20<sup>th</sup> Street. Made the following comments:

- The EIR did not contain a discussion of the impacts of the Project on small businesses.
- Revelli Tires is a family-run business and has been so for 45 years.
- Revelli Tires is dependent upon its location, which is in close proximity to BART; therefore, for the business to remain viable, it would have to be relocated to within 1 block of a BART station. However, a relocation would be a hardship because John Revelli is the sole owner/operator of the business.
- The Uptown Project should be built around Revelli Tires and should leave the business intact.
- He will also submit his comments in written form.

**1**

**Tony Fung.** Introduced himself as the owner of the full-service garage and smog station within the Project site. Made the following comments:

- The EIR did not mention the environmental impacts that would result from the relocation of businesses within the Project site.
- Due to the lack of available sites, CEDA would not be able to relocate businesses within the vicinity of the Project site.
- His business is dependent upon being in close proximity to a BART station, and he will be forced out of business if he is relocated.
- The Uptown Project should incorporate his business; residents within the Project site will require the services of a garage and smog station.

**2**

**Julia Liou.** Introduced herself as a representative of the Oakland Chinatown Coalition and other Chinatown-based organizations. Made the following comments:

- The Chinatown community is concerned about cumulative impacts on neighborhoods around the Uptown Project site.
- 9 percent of Project trips will go through Chinatown, but the EIR does not include detailed analysis of the Project's impacts on the Webster/Posey Tubes intersections.
- The EIR needs to better analyze the cumulative effects of the Project on Chinatown (including the effects of Jack London Square projects). Chinatown is one of the Bay Area's 52 most impoverished communities.

**3**

**Anna Naruta.** Made the following comments:

- The EIR needs to better analyze the cumulative impacts of the Project on surrounding communities.
- She supports Joyce Roy's March 28 letter, which stated that the Project should be integrated into the Uptown entertainment district.
- The Project should preserve historic resources within the Project site, including the 19<sup>th</sup> and San Pablo Commercial District and the Rankin Plumbing building, which is 120 years old.
- The public park should front on Telegraph Avenue.

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<ul style="list-style-type: none"> <li>• Historic buildings within the Project site are small, and are generally located on the periphery of the Project site (e.g., Navlet’s), and so could be easily incorporated into the Project.</li> <li>• Two previous Chinatown settlements (dating as far back as 1869) were located within and in close proximity to the Project site on 19<sup>th</sup> Street and San Pablo Avenue, and 22<sup>nd</sup> Street and San Pablo Avenue. These communities should be discussed in the EIR in more detail.</li> <li>• Mitigation measures should be included that reduce impacts to archaeological resources associated with these communities. Page 213 of the EIR states that there is a low to moderate chance that archeological resources will be uncovered on the site. Due to the extensive history of the Project site, there is a high likelihood that unidentified archaeological resources are located on the site. The EIR should address these cultural resources that are likely to be present within the site. Oakland General Plan Policy 4.1 mandates protection of underground cultural resources.</li> </ul>	<p><b>6 cont.</b></p>
<p><b>Erin Beales.</b> Introduced himself as the new owner of Navlet’s. Made the following comments:</p> <ul style="list-style-type: none"> <li>• Navlet’s as an architectural resource is underrated in the EIR; the building should really be rated an A. The building has been restored to its original 1924 condition (the signs and glass windows have been restored).</li> <li>• Navlet’s contains architectural details and a three-tone paint job that would be obscured by shade.</li> </ul>	<p><b>7</b></p> <p><b>8</b></p> <p><b>9</b></p>
<p><b>Steve Lowe.</b> Made the following comments:</p> <ul style="list-style-type: none"> <li>• The public park should be relocated to Telegraph Avenue, so that it will be subject to more surveillance. The City should look at park location alternatives.</li> <li>• A park belongs in the heart of Oakland’s retail center, and could have a role similar to Union Square in San Francisco.</li> </ul>	<p><b>10</b></p>
<p><b>Joyce Roy.</b> Identified herself as a representative of the Sierra Club and an Oakland resident. Made the following comments:</p> <ul style="list-style-type: none"> <li>• The Project needs to reference the fact that the Uptown District is primarily an entertainment district.</li> <li>• The Project is not consistent with the objectives of the Uptown Redevelopment Plan.</li> <li>• The proposed park should be in a more public place to take advantage of good views of the Uptown District and Downtown, and to separate housing from surrounding areas. This park could energize the area, and provide a separation between conflicting land uses.</li> <li>• She will also submit her comments in written form.</li> </ul>	<p><b>11</b></p> <p><b>12</b></p> <p><b>13</b></p>
<p><b>Naomi Schiff.</b> Identified herself as a member of the Oakland Heritage Alliance. Made the following comments:</p> <ul style="list-style-type: none"> <li>• Historic buildings could be incorporated into the Project at 20<sup>th</sup> Street and San Pablo Avenue.</li> <li>• The DEIR is incomplete for the following reasons: it does not analyze alternatives that include the preservation of on-site historic buildings; it does not analyze the design sensitivity of historic properties surrounding the Project site; Block 7 was not adequately analyzed.</li> <li>• A greater distance needs to be maintained behind the Fox Theater.</li> <li>• The hamburger stand on Block 9, which is an excellent example of “googie” architecture, should be maintained as part of the Project.</li> <li>• She will also submit her comments in written form.</li> </ul>	<p><b>14</b></p> <p><b>15</b></p> <p><b>16</b></p> <p><b>17</b></p>
<p><b>John Chapman.</b> Identified himself as a representative of the Livable Communities Initiative. Made the following comments:</p>	

- The Project combines economy, environment, social equity and civic engagement, represents a good plan for the revitalization of the district, and combats sprawl. | **18**
- The EIR should talk about the benefits of the Project, which include the provision of housing near jobs and transit, the clean-up of on-site contamination, the provision of transit opportunities, the reduction of obesity, and the recycling of land. |

**Sanjiv Handa.** Identified himself as a representative of the East Bay News Service. Made the following comments:

- The City does not have the capabilities to deal with neighborhood impacts that would be caused by the proposed student housing on Block 7. | **19**
- Politicians neglect Oakland residents and quality-of-life issues. | **20**

**Planning Commissioners**

**Anne Mudge.** Made the following comments:

- It would be useful if the EIR included a map that shows proposed uses transposed on zoning designations. | **21**
- On page 49, SBC and PG&E are designated as “Other Agencies” when in fact they aren’t permitting agencies. | **22**
- The EIR needs to include additional discussion of the relocation of businesses from the Project site. | **23**
- It is hard to tell from the EIR which buildings are proposed for demolition. Figure IV.I-1 should show these buildings. | **24**

**Mark McClure.** Made the following comments:

- The EIR should include more information and analysis regarding relocation of businesses from the Project site. | **25**
- The EIR should include alternatives that include different park locations. | **26**

**Colland Jang.** Made the following comments:

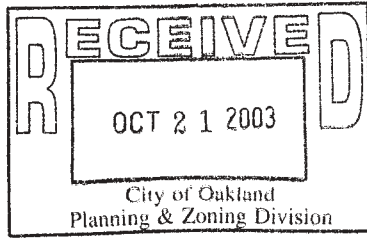
- The study intersections analyzed in the EIR should include those in Chinatown and the Broadway corridor. | **27**
- The intersection of Broadway and 5<sup>th</sup> Street is operating at LOS F. Why wasn’t this intersection subject to detailed analysis in the EIR. | **28**
- Are there detailed plans for Block 7 (if so, this is unclear in the EIR)? | **29**
- Why does the EIR only consider alternatives for Block 7? |
- The EIR should include alternatives that include 20<sup>th</sup> Street and San Pablo Avenue (historic resources). | **30**

**Michael Lighty.** Made the following comments:

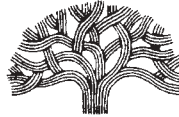
- The EIR needs to be more explicit in regard to what buildings would be demolished within the Project site. | **31**
- Historic buildings, especially those fronting on San Pablo Avenue and the Great Western Power Company Building, should be incorporated into the Project to give it character. | **32**
- The quality of the park space would be improved by moving it to Telegraph Avenue. | **33**
- The Project’s impacts on pedestrian safety and traffic volumes in Chinatown should be quantified. | **34**

**Nicole Franklin.** Made the following comments:

<ul style="list-style-type: none"><li>• The Project includes 43,000 square feet of commercial space. Performing arts and entertainment uses should be incorporated into this space to provide for after-hours activity.</li></ul>	<b>35</b>
<ul style="list-style-type: none"><li>• Why are there no population, employment and housing impacts? One would assume that impacts would result from such a large number of people moving Downtown.</li></ul>	<b>36</b>
<p><b>Clinton Killian.</b> Made the following comments:</p>	
<ul style="list-style-type: none"><li>• The intersections shown in Figure IV.D-2, Study Intersections, are not representative of all the intersections that would be affected by the Project.</li></ul>	
<ul style="list-style-type: none"><li>• Why were no intersections in West Oakland analyzed except for West Grand?</li></ul>	<b>37</b>
<ul style="list-style-type: none"><li>• Intersections between East Adams Point and the Lakeshore District and Downtown Oakland should be analyzed.</li></ul>	
<ul style="list-style-type: none"><li>• Figure IV.D-8, Project Trip Distribution, is incomplete: West Grand would be affected by the Project, especially when you take into account regional trips.</li></ul>	<b>38</b>
<ul style="list-style-type: none"><li>• The EIR should analyze the impacts of the Project on the Paramount.</li></ul>	



CITY OF OAKLAND



250 FRANK H. OGAWA PLAZA, SUITE 3330 • OAKLAND, CALIFORNIA  
94612-2032

Landmarks Preservation  
Advisory Board

(510) 238-6344  
FAX (510) 238-6538  
TDD (510) 238-3254

October 21, 2003

Ms. Claudia Cappio  
Development Director  
250 Frank Ogawa Plaza, Suite 3330  
Oakland, CA 94612

**Subject: Landmarks Preservation Advisory Board – Comments on Draft  
Environmental Impact Report for Uptown Mixed Use Project  
Environmental Impact Report**

Dear Ms. Cappio:

At its regular meeting of October 6, 2003, the Landmarks Preservation Advisory Board (LPAB) considered the Draft Environmental Impact Report (DEIR) for the Uptown Mixed Use Project Environmental Impact Report. The LPAB discussed the DEIR and directed the Uptown DEIR sub-committee to prepare a letter incorporating the Board's comments and concerns, as outlined below.

**Board Member Dreyfuss**

- Demolition or partial demolition of the old power company building would constitute a serious and unavoidable impact, even with mitigations that are proposed.
- The EIR should include an alternative that includes the preservation of the power building.
- The proposed tall project on parcel #7 would have an impact on the YMCA building and the power building. An alternative of a low-rise building should be explored at both parcels #7 and #3.

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October 21, 2003  
Uptown Mixed Use Project DEIR  
LPAB Comment Letter

- The DEIR did not address project impacts on the existing visual connection between the uptown entertainment district and cathedral district. This project cuts those districts off from each other visually and this should be addressed in the EIR. A possible mitigation is to limit height of buildings on parcels #7 and #3 to low-rise buildings. **3**
  - Disagrees with survey ratings on the 1966, 1972 San Pablo. The consultant should review ratings on both of these buildings. **4**
  - The DEIR states that there would be a serious unavoidable impact on the San Pablo commercial district due to demolition of four buildings on San Pablo. Explore an alternative that includes retention of the buildings along that street front. **5**
- Board Member Bliss
- *Additional Possible Mitigation for demolition of the Great Western Power Building:* Recommend contribution to commercial improvement façade program as an additional possible mitigation measure for the demolition of the power building possibility, explored in the DEIR. However, this would not reduce impact to less than significant. **6**
  - EIR should address impact on Kwik Way from proposal to relocate Sears Tire Store (Block 8 vs. Block 9). Kwik Way does qualify as a Historic Resource under 15064.5(a)(3)(A)(2)(C). **7**
- Board Member Armstrong
- Needs to see alternative that explores possibility of saving of buildings along San Pablo Avenue addressed in EIR. **8**
- Board Member Hooks
- Agrees with Board Member Dreyfuss on most of his comments
  - Preserving buildings makes sense – particularly power building. Feels less strongly about other buildings. However, as a backdrop for the development of parcels 1 through 6, it seems important to save them.
  - Suggests an additional mitigation for the impact on San Pablo District and historic Chinese settlements by creating a film of the district describing what it was like, including first person interviews. **9**
- Board Member Gilmartin
- The EIR should refer to Historic Preservation Element (HPE) policies in the Land Use Policies Section. The policies outline preferred City practices in regard to treatment of historic buildings and should be given appropriate consideration. **10**
  - Policies in the HPE (3.6 and others) advise that City assisted projects should be designed to avoid adverse impacts on historic structures. The proposed project is so large in scale that its impacts to the Great Western building are avoidable and the project can still achieve its objectives while avoiding adverse impacts on this building. **11**

- The EIR accurately states that mitigations identified do not make up for loss of resource like the Great Western Power building. It is still a Significant and Unavoidable impact. **12**
- Not in support of reusing and salvaging building parts for reuse in new buildings. Recommend deleting this portion of Mitigation Measure HIST-8. They should be put in a salvage yard for use on older buildings. **13**
- PDHP's could be reused. Should be analyzed and considered by project sponsor. Also, consider allowing buildings to be moved if they could continue to be part of the district by being moved. Restate Mitigation to include that moving them within the district, if possible, would be less of an impact. **14**
- Questioned whether the Fox can function as a performing arts venue, be seismically upgraded and meet exiting requirements with a 50 ft. setback as proposed. Has this been analyzed, if not it should.

Two members of the public commented on the DEIR during the Public Hearing. The Board Secretary has included their comments for convenience in addressing all EIR comments. Inclusion of public comments is not intended to indicate agreement or acceptance with them by the Landmarks Board. Public comments are outlined below:

Speakers:

- Naomi Schiff, Oakland Heritage Alliance
- The new owner of the power building is interested in rehabbing it. It is not reasonable to tear it down. **15**
  - The same owner has purchased two buildings to the west of the power building. There have been early conversations with owner about the possibility of relocating those two buildings into the uptown project to consolidate a charming older building group on San Pablo with the extant Victorian buildings. Please give us your thoughts on that. **16**
  - The buildings on San Pablo while not historic resources under CEQA could provide a transition between the project and the old fabric of the City around it, particularly the Italianates and the hotel. **17**
  - Since the buildings along San Pablo have such small footprints, the developer might come up with a way to treat that block and retain those buildings. **18**
  - The extant garages on 20<sup>th</sup> Streets should be looked at because they are still inhabited by small businesses, which might be destroyed by this project. Look at small business' longstanding value to the uptown area. **19**
  - Consider impacts on buildings not within the project:
    - Don't discount the Kwik Way burger place, a discreet parcel to the north. **20**
    - The Fox – leave enough space behind the Fox so that whatever happens there can be accommodated.
    - Consider impacts on the Floral Depot.

October 21, 2003  
Uptown Mixed Use Project DEIR  
LPAB Comment Letter

4

Anna Naruta

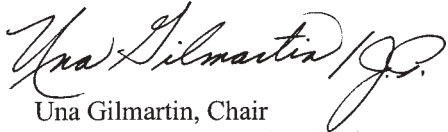
- Supports OHA remarks.
- Location of one of oldest Chinatowns in Oakland is in this project area.
- The buildings along San Pablo Avenue have small footprints and could be used to show transitions of the history of the city, along with interpretive exhibits.

**21**

**22**

Please contact Joann Pavlinec, Secretary to the LPAB, at (510) 238-6344 if you have any questions regarding the above comments. Thank you for the opportunity to comment.

Sincerely,



Una Gilmartin, Chair  
Landmarks Preservation Advisory Board

Comments from the Landmarks Preservation Advisory Board - November 3, 2003  
Meeting, on the Uptown Mixed Use Project Draft Environmental Impact Report:

Anna Naruta, Historical Archeologist, Oakland resident: Ms. Naruta addressed potential archaeological resources associated with Uptown Chinatowns, based on findings of resources close to the area slated for the uptown mixed use development project. Research indicates that two blocks from the proposed project area, there had been previous archaeological monitoring projects. In those project areas, the existing buildings were historic structures with basements (dug into the earth) and also some mid-20<sup>th</sup> century replacements. They actually found, in each area, remains even below the basements and in those areas associated with the mid-20<sup>th</sup> century buildings that had replaced historic buildings. This gives characterizing information indicating how likely it is that it can be expected that the uptown mixed use project will also encounter significant archaeological remains. Therefore, the mitigations in the Draft EIR need to be extended. Page 213 of the Draft EIR states that the project area has a likely hood of containing historical archaeological deposits. The next page states some of the deposits are likely to be associated with early Chinatown settlements and may be of use in answering important research questions. The proposed mitigation of just having an archeological monitor, which may be appropriate when you don't expect to have any archeological remains, is inadequate.

1

Steve Lowe: Has concerns regarding the Uptown Mixed Use Project and how it is currently configured. He stated that the project is wrongly configured with respect to the location of the park. The developers have stated that there would be some kind of forthcoming community dialogue to figure out where the park should be. Currently, it is in the middle of the project facing 20<sup>th</sup> Street. Many believe that it should be out on Telegraph, the heart of the area. Locating the park along Telegraph would provide a view corridor from the Fox Theatre to Navalets and would also incorporate views of the existing wonderful historic facades mixed with views of the new development. To deny that view, erodes the idea having a real center.

2