


Lake Merritt Station Area Plan

Draft
Environmental Impact Report

SCH # 2012032012

Volume I of II

November 2013

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Volume I of II

Prepared for the **City of Oakland** by

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November 2013

CITY OF OAKLAND

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Department of Planning and Building
Strategic Planning Division

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NOTICE OF AVAILABILITY/RELEASE OF A DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR) FOR THE LAKE MERRITT STATION AREA PLAN AND NOTICE OF PUBLIC HEARINGS ON DEIR

TO: All Interested Parties

SUBJECT: Notice of Availability/Release of Draft Environmental Impact Report for the Lake Merritt Station Area Plan, and Notice of Public Hearing on the same.

REVIEW PERIOD: November 1, 2013 through December 16, 2013

CASE NO.: ZS11225, ER110017, GP13287, ZT13288, RZ13289 (CEQA State Clearinghouse Number 2012033012)

PROJECT SPONSOR: City of Oakland

PROJECT LOCATION: The Lake Merritt Station Area encompasses approximately 315 acres generally bound by 14th Street to the north, I-880 to the south, Broadway to the west, and 5th Avenue to the east. The Planning Area includes the Lake Merritt BART Station, Oakland Chinatown business and residential districts, Laney College and Peralta facilities, the Oakland Public Library, the Oakland Museum of California, the Alameda County Courthouse and other County offices, the building currently occupied by the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC), the Lake Merritt Channel, and a portion of the East Lake district.

PROJECT DESCRIPTION:
With a planning horizon to 2035, the Plan builds on extensive community feedback to articulate a roadmap for future development, continued revitalization and economic growth, and community enhancement in the Station Area. The Plan seeks to achieve the vision and goals established by the community and key stakeholders. This vision includes several statements, which are summarized here:

- Create an active, vibrant and safe district;
- Encourage services and retail;
- Encourage equitable, sustainable and healthy development;
- Encourage non-automobile transportation;
- Increase and diversify housing;
- Encourage job creation and access;
- Identify additional open space and recreation opportunities;
- Celebrate and enhance Chinatown as an asset and a destination;
- Model progressive innovations (i.e., economic, environmental, social).

The Plan consists of written text and diagrams that express how the Planning Area should develop into the future, and identifies key actions the City and other entities will take to improve the area. The Plan

covers land use, development density, circulation and infrastructure, and has legal authority as a regulatory document. It contains elements required of Specific Plans, such as:

- The distribution, location, and extent of the uses of land, including open space, within the area covered by the plan;
- The distribution, location, and extent and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, energy, and other essential facilities;
- Standards and criteria by which development will proceed; and
- A program of implementation measures including regulations, programs, public works projects, and financing measures necessary to carry out the proposed improvements.

The Plan includes land use changes that will reduce the barriers to increased transit use from both the immediate area and surrounding neighborhoods. The Plan seeks to create an activity core around a rejuvenated transit station. Simultaneously, the Plan seeks to reinforce and integrate the cultural and recreational resources that make this transit station unique. The Plan identifies ways in which streets, open spaces, and other infrastructure in the area can be improved, and establishes regulations for development projects that further the area's vitality and safety.

The Station Area Plan requires General Plan and Planning Code amendments (text and map changes) along with Design Guidelines to achieve the Plan's goals. For more information on the project, including draft documents, please visit the project website at: http://www.business2oakland.com/lakemerrittsap.

ENVIRONMENTAL REVIEW: A Notice of Preparation of an EIR was issued by the City of Oakland's Department of Planning and Building on March 1, 2012. A Draft Environmental Impact Report (DEIR) has now been prepared for the project under the requirements of the California Environmental Quality Act (CEQA) pursuant to Public Resources Code Section 21000 et. seq. The DEIR analyzes the potentially significant environmental impacts in the following environmental categories: Land Use, Planning, Population and Housing; Transportation and Traffic; Air Quality; Climate Change and Greenhouse Gases; Parks and Recreation; Public Services; Utilities and Service Systems; Cultural and Historic Resources; Aesthetics; Biological Resources; Geology and Soils; Hazards and Hazardous Materials; and Hydrology and Water Quality. The Draft EIR identifies significant and unavoidable environmental impacts related to: Transportation and Circulation; Air Quality; and Cultural Resources.

The City of Oakland's Department of Planning and Building is hereby releasing this DEIR, finding it to be accurate and complete and ready for public review. **Starting on Friday, November 1, 2013,** copies of the DEIR are available for review or distribution to interested parties at no charge at the Department of Planning and Building, 250 Frank Ogawa Plaza, Suite 3315, Oakland, CA 94612, Monday through Friday, 8:30 a.m. to 4:30 p.m. Additional copies are available for review at the Oakland Public Library, Social Science and Documents, 125 14th Street, Oakland, CA 94612 and at the Oakland Asian Cultural Center, 388 9th Street #290, Oakland, CA 94607. The Draft EIR may also be reviewed on the City's "Current Environmental Review Documents" webpage:
http://www2.oaklandnet.com/Government/o/PBN/OurServices/Application/DOWD009157

The City has scheduled two public hearings on the DEIR:

Landmarks Preservation Advisory Board
Monday, November 18, 2013
6:00 p.m.
Oakland City Hall, Hearing Room 1
One Frank H. Ogawa Plaza
Oakland, CA 94612

City Planning Commission
Wednesday, November 20, 2013
6:00 p.m.
Oakland City Hall, Council Chambers
One Frank H. Ogawa Plaza
Oakland, CA 94612

Members of the public are welcome to attend these hearings and provide comments. Comments on the DEIR should focus on whether the DEIR is sufficient in discussing possible impacts to the physical environmental, ways in which potential adverse effects may be avoided or minimized through mitigation measures, and alternatives to the Station Area Plan in light of the EIR's purpose to provide useful and accurate information about such factors. Comments may be made at the public hearings described above or in writing. Please address all written comments to Christina Ferracane, Strategic Planning, City of Oakland, Planning and Building Department, 250 Frank H. Ogawa Plaza, Suite 3315, Oakland, CA 94612; 510-238-3903 (phone); 510-238-6538 (fax); or e-mailed to cferracane@oaklandnet.com. Comments on the DEIR **must be received no later than 4:00 p.m. on December 16, 2013**.

After all comments have been received, a Final EIR will be prepared and the Planning Commission will consider certification of the EIR and rendering a decision on the Station Area Plan at a public hearing, date yet to be determined. All comments received will be considered by the City prior to finalizing the EIR and taking any further action pertaining to this EIR. If you challenge the environmental document or other actions pertaining to this Project in court, you may be limited to raising only those issues raised at the public hearings described above or written in correspondence received by December 16, 2013. For further information please contact Christina Ferracane at 510-238-3903 or cferracane@oaklandnet.com.

Rachel Flynn
Environmental Review Officer

October 24, 2013

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Print Form

Appendix C

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #2012033012

Project Title: Lake Merritt Station Area Plan

Lead Agency: City of Oakland | Contact Person: Christina Ferracane
Mailing Address: 250 Frank H. Ogawa Plaza, Suite 3315 | Phone: (510) 238-3903
City: Oakland | Zip: 94612 | County: Alameda

Project Location: County: Alameda | City/Nearest Community: Oakland
Cross Streets: Bounded generally by Broadway, 14th Street, 5th Avenue, and I-880 | Zip Code: 95612
Longitude/Latitude (degrees, minutes and seconds): 37 ° 79 ′ ″ N / -122 ° 265 ′ ″ W | Total Acres: 315
Assessor's Parcel No.: various | Section: | Twp.: | Range: | Base:
Within 2 Miles: State Hwy #: I-880 | Waterways: L. Merritt Channel, L. Merritt, Oakland Estuary, SF Bay
Airports: No | Railways: Union Pacific/Amtrak | Schools: Lincoln ES, DEC, others

Document Type:

CEQA: ☐ NOP ☒ Draft EIR | NEPA: ☐ NOI | Other: ☐ Joint Document
☐ Early Cons ☐ Supplement/Subsequent EIR | ☐ EA | ☐ Final Document
☐ Neg Dec (Prior SCH No.) | ☐ Draft EIS | ☐ Other:
☐ Mit Neg Dec Other: | ☐ FONSI

Local Action Type:

☐ General Plan Update ☒ Specific Plan ☒ Rezone ☐ Annexation
☒ General Plan Amendment ☐ Master Plan ☐ Prezone ☐ Redevelopment
☐ General Plan Element ☐ Planned Unit Development ☐ Use Permit ☐ Coastal Permit
☐ Community Plan ☐ Site Plan ☐ Land Division (Subdivision, etc.) ☐ Other:

Development Type:

☒ Residential: Units 4,900 Acres
☒ Office: Sq.ft. 1.229M Acres Employees 3,000 ☒ Transportation: Type bicycle lanes, lane reduction
☒ Commercial: Sq.ft. 404,000 Acres Employees 1,100 ☐ Mining: Mineral
☐ Industrial: Sq.ft. Acres Employees ☐ Power: Type MW
☒ Educational: 108,000 (includes all institutional) ☐ Waste Treatment: Type MGD
☐ Recreational: ☐ Hazardous Waste: Type
☐ Water Facilities: Type MGD ☐ Other:

Project Issues Discussed in Document:

☒ Aesthetic/Visual ☐ Fiscal ☒ Recreation/Parks ☒ Vegetation
☐ Agricultural Land ☒ Flood Plain/Flooding ☒ Schools/Universities ☒ Water Quality
☒ Air Quality ☒ Forest Land/Fire Hazard ☐ Septic Systems ☒ Water Supply/Groundwater
☒ Archeological/Historical ☒ Geologic/Seismic ☒ Sewer Capacity ☒ Wetland/Riparian
☒ Biological Resources ☐ Minerals ☒ Soil Erosion/Compaction/Grading ☒ Growth Inducement
☐ Coastal Zone ☒ Noise ☒ Solid Waste ☒ Land Use
☒ Drainage/Absorption ☒ Population/Housing Balance ☒ Toxic/Hazardous ☒ Cumulative Effects
☒ Economic/Jobs ☒ Public Services/Facilities ☒ Traffic/Circulation ☐ Other:

Present Land Use/Zoning/General Plan Designation:

Central Business District, Community Commercial, Mixed Use, Urban Residential, Institutional, Office,Industrial, Open Space

Project Description: *(please use a separate page if necessary)*

The Lake Merritt Station Area Plan will be a 25-year planning document for the area around the Lake Merritt BART Station, generally bounded by 14th Street to the north, I-880 to the south, Broadway to the west and 5th Avenue to the east. The Plan will include recommendations for improvements to streets, open spaces and new development.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Revised 2010

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "X".
If you have already sent your document to the agency please denote that with an "S".

x	Air Resources Board	x	Office of Historic Preservation
	Boating & Waterways, Department of		Office of Public School Construction
	California Emergency Management Agency		Parks & Recreation, Department of
x	California Highway Patrol		Pesticide Regulation, Department of
X	Caltrans District #4		Public Utilities Commission
	Caltrans Division of Aeronautics	x	Regional WQCB #2
x	Caltrans Planning		Resources Agency
	Central Valley Flood Protection Board		Resources Recycling and Recovery, Department of
	Coachella Valley Mtns. Conservancy	X	S.F. Bay Conservation & Development Comm.
	Coastal Commission		San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
	Colorado River Board		San Joaquin River Conservancy
	Conservation, Department of		Santa Monica Mtns. Conservancy
	Corrections, Department of		State Lands Commission
	Delta Protection Commission		SWRCB: Clean Water Grants
	Education, Department of	X	SWRCB: Water Quality
	Energy Commission		SWRCB: Water Rights
x	Fish & Game Region #3		Tahoe Regional Planning Agency
	Food & Agriculture, Department of	X	Toxic Substances Control, Department of
	Forestry and Fire Protection, Department of		Water Resources, Department of
	General Services, Department of		
	Health Services, Department of	X	Other: East Bay Municipal Utility District
	Housing & Community Development	X	Other: Bay Area Air Quality Management District
x	Native American Heritage Commission		

Local Public Review Period (to be filled in by lead agency)

Starting Date Nov 1, 2013 Ending Date December 16, 2013

Lead Agency (Complete if applicable):

Consulting Firm: Dyett and Bhatia
Address: 755 Sansome St. Suite 400
City/State/Zip: San Francisco, CA 94111
Contact: Peter Winch
Phone: (415) 956-4300

Applicant: City of Oakland
Address: 250 Frank H. Ogawa Plaza, Suite 3315
City/State/Zip: Oakland, CA, 94612
Phone: (510) 238-6538

Signature of Lead Agency Representative: [signature] **Date:** 10.23.13

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

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**Note: Appendices are included in the CD provided with this document or upon request to the City of Oakland.*

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Executive Summary

This Draft Environmental Impact Report (EIR) evaluates the potential impacts of the proposed Lake Merritt Station Area Plan.[1] The proposed Plan is intended to be adopted concurrently with General Plan and Planning Code amendments, Design Guidelines for the Lake Merritt Station Area Plan, and any identified revisions to the City's Standard Conditions of approval. The proposed Plan was developed in response to policy direction provided by the City Council and the Planning Commission as well as community feedback through an extensive public participation and outreach program, including newsletters, community workshops and public meetings in from 2008 to present. The City of Oakland is the lead agency for this EIR, as defined by the California Environmental Quality Act (CEQA). As the lead agency, the City is required to evaluate the potential effects of the proposed Plan in an EIR.

An EIR is intended to inform decision-makers and the general public of the potential significant environmental impacts of a proposed project. The EIR also identifies mitigation measures to minimize significant impacts and evaluates reasonable alternatives to the proposed Plan that may reduce or avoid one or more significant environmental effects. These alternatives must include a "No Project" alternative that represents the result of not implementing the project and a range of reasonable alternatives to the project, which would feasibly attain most of the basic objectives but would avoid or substantially lessen any of the significant effects of the project.[2] Based on the alternatives analysis, an environmentally superior alternative is identified.

This EIR examines the potential effects resulting from implementing designated land uses and policies in the proposed Plan. The impact assessment evaluates the proposed Station Area Plan as a whole and identifies the broad, regional effects that may occur with its implementation. Future development projects described in the proposed Plan may be subject to individual, site-specific environmental review, as required by State law.

Proposed Plan

The Planning Area encompasses 315 acres in the heart of Oakland, a major urban center within the San Francisco Bay Area. Adjacent neighborhoods and destinations include Downtown Oakland, Lake Merritt, the Jack London District, Old Oakland, and Uptown. The Planning Area's location within this context is shown in Chapter 2, **Figure 2.1-1**, and a more detailed map of the Planning Area itself is provided in

[1] Throughout this document, the term "proposed Lake Merritt Station Area Plan" is used interchangeably with "proposed Station Area Plan," "proposed Plan" or "proposed Project."

[2] CEQA Guidelines 15126.6(a)

Figure 2.1-2. The Planning Area includes a diverse range of urban land uses and building types, and features important community resources. Key features include the Lake Merritt BART Station, Oakland Chinatown, Laney College, the Oakland Museum of California, Oakland Public Library, Lincoln Square Park and Recreation Center and Lincoln Elementary School, the Kaiser Auditorium, Lake Merritt and Lake Merritt Channel, and the park land along both.

The Planning Area is home to approximately 6,100 people and 17,800 jobs, or 12,000 residents and 30,000 jobs in the larger half-mile radius around the Lake Merritt BART Station. It is one of the oldest areas of Oakland, and includes seven designated historic districts (either portions or complete districts).

PURPOSE AND OBJECTIVES OF THE PROPOSED PLAN

The proposed Lake Merritt Station Area Plan reflects the vision and goals developed through an extensive community engagement process and refined through Community Stakeholder Group guidance. Broadly, the proposed Station Area Plan aims to foster new, high-quality, Transit-Oriented Development that supports and helps connect existing neighborhood assets and provides enhanced neighborhood amenities. Funding for the Plan has been provided primarily by the Metropolitan Transportation Commission (MTC) as part of the FOCUS Priority Development Area (PDA) program, a region-wide effort to revitalize major transit corridors throughout the Bay Area.

The proposed Plan establishes more specific goals in 11 categories, including community engagement; public safety; business; jobs; housing; community resources and open space; transportation; health; redevelopment of key publicly-owned blocks; and green and sustainable urban design. These goals provide focus and guidance on more specific policies in each chapter of the Plan. Taken together, the vision statements and goals establish an overall direction for the Planning Area that is reflected in the proposed Plan's "area character" and "height area" maps, circulation strategies, policies, and implementation measures.

Proposed land use character, high quality design, circulation improvement strategies, and economic development act as unifying Plan concepts. These concepts reflect the vision and goals of the proposed Plan and relate directly to other key proposed Plan components such as open space and cultural resources. These unifying concepts are briefly presented here, with a more detailed explanation of land use issues.

LAND USE CHARACTER

The Plan proposes land use character zones or districts, which promote a diversity of uses that complement each other and ensure an active urban neighborhood. The Draft Area Character map (**Figure 2.3-1**) shows nuanced character differences within the mixed-use context of the Planning Area. Flexible mixed use areas are proposed that seek to promote economic development and encourage vibrant pedestrian-oriented corridors. These districts consist of high-density housing, office and retail uses, institutional uses, and new public spaces, and will be implemented through Planning Code amendments (discussed below).

Key themes related to height and massing include preserving and enhancing community character, compatibility with historic and natural resources, and accommodation of high-density Transit-Oriented Development. Based on proposed Plan guidance, revised massing regulations should establish coherence in building massing; respect historic buildings and patterns of lot size and scale; be sensitive to existing buildings, and existing and new parks; and incorporate transitions between developments of differing scales.

CIRCULATION IMPROVEMENT STRATEGIES

The proposed circulation improvement strategies focus on establishing interconnected and safe travel for people walking, riding bicycles, taking transit, or driving. Streets are identified for improvements to promote non-motorized and transit access between activity hubs within the Planning Area. Important elements of this strategy include pedestrian safety and comfort, clearly marked bicycle access, and an improved transit access plan. In addition, strategies for improved connectivity under the I-880 Freeway could remove an existing barrier to access in the Planning Area. Proposed circulation improvements are described in Chapter 6 of the Station Area Plan, and discussed in the EIR impacts sections where relevant. The overall circulation improvement strategy is split into two phases. Phase I, shown in Chapter 2, **Figure 2.3-3,** includes short-term actions that are studied in this Plan and EIR. Phase II includes long-term actions that will be subject to future studies.

OPEN SPACE

As new development takes place and the residential population increases, the Plan proposes improved access, maintenance, and usability of existing parks, as well as development of new open spaces. Through proposed policies, the Plan aims to enhance existing open spaces; partner with the Oakland Unified School District and other schools; and expand the amount of new park and open space acreage and recreation facilities. Some new open space will be created along Lake Merritt Channel.

COMMUNITY RESOURCES

Community resources, including cultural and historic resources, schools, and other community facilities, are key components to a vibrant and complete neighborhood. The Lake Merritt Station Area Plan builds upon the existing community resources in the Planning Area, while highlighting its historical, cultural and educational assets.

INFRASTRUCTURE AND UTILITIES

The City of Oakland and regional districts provide a variety of infrastructure services including potable water, sanitary sewer (wastewater), recycled water, storm drainage, electricity and natural gas service, and solid waste disposal services to meet the demand of residents and businesses. The Planning Area, while completely serviced with existing utilities, will require upgrades and relocations of certain infrastructure elements. The Plan includes policies and direction on priorities for new streetscape design that emphasizes low-impact stormwater run-off strategies, and reinforces City standards ensuring that new development incorporates stormwater best practices.

ECONOMIC DEVELOPMENT

The proposed Plan includes an economic development strategy to foster investment and growth in the Planning Area and provide support for existing and future businesses in the Planning Area. The economic development strategy works in tandem with new building construction and improvements to streets, parks, and safety to improve quality of life to the benefit of existing and new businesses and residents.

CONCURRENT PROJECT COMPONENTS

It is anticipated that General Plan amendments, Planning Code amendments, and design guidelines will proceed concurrently with the Station Area Plan.

General Plan Amendments

No General Plan classifications would be changed or added, but certain land use designations in the Planning Area would be reclassified, to implement the Station Area Plan's Land Use Character diagram. Existing and proposed General Plan and Estuary Policy Plan designations are described in Chapter 2 and shown in **Figure 2.4-1.**

Planning Code Amendments

While the General Plan establishes a policy and regulatory framework, the Planning Code prescribes standards, rules, and procedures for development. The Planning Code translates plan policies into specific land use regulations, development standards, and performance criteria that govern development on individual properties. The proposed Plan provides direction for new and modified land use districts, use and development standards, and density and intensity limits.

Zoning Districts

Zoning in the Planning Area would be changed to conform to the proposed Plan. Existing Central zoning districts would be replaced by a new set of Lake Merritt Station Area Plan (LMSAP) zoning districts reflecting the Area Character diagram. Existing and proposed new zoning districts described in Chapter 2 and are shown in **Figures 2.4-2** and **2.4-3**, respectively.

Height Areas

The zoning amendments also include amendments to the Height Areas, to implement the Station Area Plan's concepts for base and tower height limits. Existing Central Business District (CBD) Height Areas and Commercial/Corridor Height Limits zones would be replaced by a new set of height areas reflecting the Draft Height Map in the Station Area Plan. Existing and proposed height areas are described in Chapter 2 and shown in **Figures 2.4-4** and **2.4-5**, respectively.

Design Guidelines

Proposed Design Guidelines for the Lake Merritt Station Area Plan would complement the existing zoning regulations, citywide design guidelines, and the design review procedures of the Oakland Planning Code. The proposed Lake Merritt Design Guidelines will provide certainty and predictability in the design review process through establishment of uniform decision-making criteria for all projects in the Lake Merritt Station Planning Area. The proposed Design Guidelines, in combination with any other applicable citywide guidelines, serve as the basis for design review approval findings by City staff, and when necessary, the City Planning Commission and the City Council. The proposed Design Guidelines are intended to be specific enough to guide development, but flexible and qualitative enough to encourage creative design solutions.

Chapter 17.136 of the Planning Code determines the type of design review required for different projects. The Lake Merritt guidelines supplement the design review criteria contained in that Chapter and any other required criteria.

REASONABLY FORESEEABLE MAXIMUM DEVELOPMENT

This EIR analyzes the amount of development that can be reasonably expected to occur in the Planning Area over the next 25 years, under the proposed Plan. This development potential is the *reasonably fore-*

seeable maximum development that would occur within the Planning Area during the life of the proposed Plan and is the level of development envisioned by the proposed Plan. Although the proposed Plan applies a planning horizon, the Plan is not intended to specify or anticipate when buildout will actually occur; nor does the designation of a site for a certain use necessarily mean the site will be built/redeveloped for that use within the next 25 years.

New development is assumed to occur on vacant and under-utilized "opportunity sites," shown in Chapter 2 on **Figure 2.5-1**. The potential development identified for each opportunity site (in terms of residential units and square feet of non-residential space) was determined based on a variety of factors, including market dynamics, building feasibility, site size and location, and conceptual Plan policies. Total development potential is aligned with regional growth projections, and also takes into account the market opportunity assessment (for both 2020 and 2035).

The Plan establishes a long-range vision for a high-intensity neighborhood, including the addition of 4,900 new housing units expected to accommodate 4,700 households, 4,100 new jobs, 404,000 square feet of additional retail, and about 1,230,000 square feet of office uses, as shown in **Table ES-1**. This represents more than doubling the residential population and increasing jobs by nearly 25 percent. Detailed development potential by site and a complete list of assumptions are included in Appendix B of the Station Area Plan. Overall the development potential identified here is consistent with the market opportunity analysis and with regional growth projections.

Table ES-1: Reasonably Foreseeable Maximum Development Under the Proposed Plan

	Existing	*Net New*	*Total*	*Percent Change*
Residential Units[1]	3,000	4,900	7,900	163%
Households[2]	2,900	4,700	7,600	162%
Population	6,090	9,900	16,000	162%
Retail Square Feet[3]	843,000	404,000	1,247,000	48%
Office Square Feet	1,022,000	1,229,000	2,251,000	120%
Institutional Square Feet	3,467,000	108,000	3,575,000	3%
Jobs[4]	17,800	4,100	21,900	23%

Notes:

1. Existing residential units based on ACTC/ABAG projections for 2005, with projects completed between 2005 and 2012 added in.
2. Households assume a 5% vacancy rate in the residential units.
3. Non-residential square feet are estimated based building footprint square footage, multiplied by the number of stories in existing buildings.
4. Existing jobs are based on ACTC/ABAG projections for 2005; Plan jobs are based on one job for every 350 SF of retail space and one job for every 400 square feet of office space.
5. Net new development assumes reductions for any existing land uses.

Source: Dyett & Bhatia, 2012; ABAG, 2009; Alameda County Transportation Commission, 2010.

AREAS OF CONTROVERSY/ISSUES TO BE RESOLVED

A Notice of Preparation (NOP) was published and circulated on March 1, 2012 to solicit comments regarding the final scope and content of the EIR. Scoping comments received on the project's NOP (included as **Appendix A**) included letters from various local agencies. The following topics were raised in the scoping comments received; complete comments can be found in **Appendix A**. While each of these topics was raised, they are not all considered areas of controversy. Each of these topic areas is addressed in this EIR.

- Transportation and Traffic
  - Use countywide transportation demand model for projection years 2020 and 2035.
  - Address all potential impacts of the project on the MTS roadway and transit systems.
  - Analyze impacts on CMP transit Level of Service.
  - Consider demand-related strategies to reduce the need for new roadway facilities over the long term.
  - Include all necessary traffic studies associated with reducing lanes on one-way streets and striping bike lanes on key streets.
  - Assess delay of busses (due to traffic congestion) and overcrowding of busses. Include impacts road diets on bus operations in this assessment. Take AC Transit "Urban Trunk Program" into account.
  - Include analysis of and mitigations for additional delay/transit levels of service; include cumulative impacts to transit (within and outside of the study area).
  - Include analysis of impacts of the proposed Plan on state highway facilities in vicinity of project site; need to prepare Traffic Impact Study.
  - Evaluate potential impacts to the City of Alameda's access to regional facilities and impacts to traffic in Chinatown.
  - Consider existing approved deficiency plan for SR 260/Posey tube/ Jackson St eastbound to I-880 northbound freeway connection deficiency plan.
  - Assess impacts to the area's walkability and bikeability.
  - Analyze safety for all modes.
  - Consider traffic mitigations that include parking management and transit improvements.
- Cultural and Historic Resources
  - Use Secretary of Interior standards for treatment of historic properties.
  - Identify adequate measures to protect archaeological resources prior to construction.
  - Characterize impacts on historic districts (not individual opportunity sites); just because a particular site is not an Area of Primary Importance (API) doesn't mean redevelopment of the site won't impact its surrounding or nearby district.
  - Consider design transitions to avoid adverse impacts to historic resources.
  - How will the proposed plan affect existing cultural and historic resources?
  - What current cultural and historic resources are already threatened?

- Other Issue Areas
  - Study impacts of population growth on existing parks, community centers, and schools; identify projected growth of children and youth.
  - How does the Plan relate to OSCAR?
  - What is the loss of recreational space and community services to the Chinatown community due to the displacement of the open recreational space on the BART administration building block?
  - How will the population growth from development affect access to public services?
  - Analyze impacts on the neighborhood in the areas of population and housing, air quality, transportation and traffic, noise, cultural and historic resources, parks and recreation, and greenhouse gases and global climate change.
  - Study potential residential displacement.
  - Projects next to roadways should consider noise impacts.
  - Future individual projects must request a water supply assessment (WSA).
  - Evaluate risks from exposure to freeway emissions in the long-term (including mortality risk) as well as construction-related dust and pollutants in the short-term.
  - Consider how the proposed plan will impact greenhouse gas reduction goals.
  - Consider how the proposed plan will impact air quality in the surrounding neighborhoods.
  - Identify current levels of air pollution, including PM 2.5.
- Alternative suggestions related to development potential and heights. These are addressed in greater detail in Chapter 4.
- Mitigation suggestions focused on addressing a wide range of possible mitigation measures and ensuring that measures are adequate, implementable, and enforceable.

In addition, several comments were raised related to the development of the Plan itself, or were related to issues beyond the scope of the analysis in this EIR prepared pursuant to CEQA, but which will be considered by decision makers, including the following topics:

- Outside of EIR Scope
  - Study of one-way to two-way street conversion.
  - Study of a Community Benefits program, including use as mitigation, and specific links to development intensity [lower than the Draft Plan's threshold for building height of 275 feet].
  - Considerations related to health and Social impacts (including demographics, income, employment, etc.), beyond air quality impacts.
  - Segregate the BART project for its own complete EIR. The need for a separate EIR for the BART development will be determined at the project level.
  - Include detailed wind and shadow analysis, and detailed mitigation measures.
  - Study and develop a first phase pedestrian and streetscape improvement project (note – Phase I improvements identified in the proposed Plan do not require CEQA review).

  - Future studies (i.e. for impact fees, CUPs tied to height limits, fair share contribution, financing and scheduling for individual projects, economic development study as needed – such as how to achieve ground floor retail).
  - Detailed studies related to historic preservation (i.e. Mills Act impact on feasibility, TDR program and identify receiving sites, study of open air use of king block alley, assessment of character-defining features of all API & ASI; light and air; and the Plan's compliance with existing policy ensuring consistency of zoning with existing or eligible preservation districts).
  - Detailed consideration of potential impacts relating to the loss of cultural and historic resources on the Chinatown community. Note that impacts to cultural and historic resources are addressed in Section 3.8 consistent with CEQA.
  - Study impacts from previous development. Note that previous development will be included within the existing baseline, and not evaluated separately.
  - Evaluation of other developments in proximity to the Plan Area in the cities of Oakland and Alameda (especially, PDAs). Note that while these projects are not individually evaluated, they are included in the cumulative traffic analysis to the extent they are reflected in the current countywide model.
  - Detailed assessment of traffic beyond City of Oakland CEQA thresholds, including specific traffic impacts related to traffic going to and from Alameda through Chinatown, inclusion of traffic analysis of every intersection in the entire study area with maximum build out, and impacts to commute times or distances.

- Comments on the proposed Plan
  - Specific development recommendations related to Alameda County offices and high density construction at Laney parking lot.
  - Consider opportunities to promote countywide bike and pedestrian routes, including bike and pedestrian routes across estuary and connectivity to regional bike and pedestrian system.
  - Plan should include 6th St corridor as potential transportation option to address traffic circulation and capacity needs.
  - Base the project description for the programmatic EIR on a re-drafted plan that incorporates mechanisms for community benefits [that would be triggered at a lower threshold that the 275-foot building height threshold included in the Draft Plan].
  - Include policies in plan to reduce number of parking spaces to serve the various uses.
  - Consider extending Free B shuttle to provide greater connectivity b/w downtown, Jack London and Lake Merritt BART station.
  - 11th and 12th; 7th and 8th; and Harrison and Webster Streets are the most important transit streets.
  - Define an entitlement process for all large projects such that they are subject to a supplemental EIR review of major impacts under the City's entitlement process.
  - How will the open space and community center needs of the population growth be addressed, and how will the plan improve the baseline conditions of park space and community center space in the area?
  - Locate development near transit nodes and connect nodes with streets hospitable to biking and walking.

Alternatives to the Proposed Plan

The following alternatives are described and evaluated in this EIR:

Reduced Scope Alternative. The Reduced Scope Alternative identifies reduced allowable heights, compared to the proposed Plan, for key height areas where community feedback has indicated some interest in lower overall heights. These areas include the upper Chinatown area generally between 11th and 14th Streets; blocks directly west and south of the Chinatown Commercial District; and the Eastlake Gateway area.

For the Reduced Scope Alternative, development potential assumptions are adjusted to reflect smaller towers on several opportunity sites, resulting in 1,000 fewer units and 2,100 fewer residents when compared to the proposed Plan, a 20 percent reduction. The Reduced Scope Alternative also assumes a smaller amount of office and retail development would occur. Specifically, it assumes no office component to the redevelopment of the MTC/ABAG site, and 30 percent less retail development throughout the Planning Area. As a result, this Alternative would add about 3,200 jobs, or roughly 1,000 fewer than under the proposed Plan.

Enhanced Transportation Demand (TDM) Alternative. The Enhanced TDM Alternative focuses on the addition of a range of additional TDM measures that could be incorporated into the Plan, and that are expected to have specific trip-reduction implications. These policies are in addition to improved pedestrian, bicycle and transit access and TDM policies identified in the proposed Plan or augment proposed Plan policies. As a policy-focused alternative, it assumes the same amount of overall growth as the proposed Plan. Proposed policies added for this alternative, their relationship to proposed Plan policies, and expected outcomes from identified policies are outlined in Chapter 4.

ACTC Defined No Project Alternative. The ACTC Defined No Project Alternative assumes no adoption of the proposed Plan and continuation of land use development under the current City of Oakland General Plan, as reflected in the ACTC/ABAG Projections for 2035, by Traffic Analysis Zone (TAZ). Specifically, this alternative assumes the Plan would not be adopted and evaluates what reasonably would be expected to occur if regional growth projections for the area are accurate. The northern tier of the Planning Area would be expected to experience more population growth—and thus residential development—under the No Project than under the Station Area Plan, as would the southwest corner. Meanwhile, central portions of the Planning Area would experience more residential growth under the Station Area Plan than under the ACTC Defined No Project, as would the Eastlake Gateway Plan District.

The ACTC Defined No Project Alternative would result in virtually the same overall population and job growth as the Station Area Plan, with approximately 200 fewer persons and fewer than 100 more jobs in the Planning Area, as compared to the proposed Plan.

Planning Area Trends-Based No Project. The Planning Area Trends-Based No Project is a low growth scenario that assumes no adoption of the proposed Plan and assumes future growth in the Planning Area based on current and historic trends. This No Project alternative may be a more reasonable growth projection than the ACTC defined No Project given historic growth patterns, and evaluates the circumstance under which the proposed Plan is not approved and growth in the Planning Area continues along similar trends witnessed since 2005.

Theoretical Maximum Buildout Alternative. This alternative assumes that every parcel within the Planning Area would be developed to the maximum allowed by proposed land use regulations. Given that the majority of land within the Planning Area is currently developed with a wide variety of existing uses that are likely to remain well into the future, the likelihood of "maximum buildout" occurring is considered so highly unlikely as to be theoretical.

Table ES-2 summarizes key characteristics of the resident and worker populations at buildout (2035) under the proposed Plan and each of the EIR alternatives. A detailed comparison of alternatives and associated impacts is provided in Chapter 4: Alternatives of this EIR.

Table ES-2: Comparison of Potential New Development by Alternative (2035)

		***Net New** Development*					
	Existing Conditions	*Proposed Plan*[7]	*ACTC Defined No Project*[8]	*Trends-Based No Project*	*Reduced Scope Alternative*	*Enhanced TDM Alternative*	*Theoretical Maximum Buildout Alternative*
Residential Units[1]	3,000	4,900	4,900	2,300	3,900	4,900	32,600
Households[2]	2,900	4,700	4,700	2,200	3,700	4,700	31,000
Population[3]	6,100	9,900	9,900	4,600	7,800	9,900	93,000
Retail Square Feet[4]	843,000	404,000	161,000	71,000	283,000	404,000	7,596,000
Office Square Feet	1,022,000	1,229,000	1,134,000	540,000	979,000	1,229,000	23,109,000
Institutional Square Feet	3,467,000	108,000	316,000	300,000	108,000	108,000	2,031,000
Jobs[5, 6]	17,800	4,100	4,200	1,600	3,200	4,100	81,500
Parks (acres)	23.6	10.9	4.7	4.7	10.9	10.9	4.7

Notes:

1. Existing residential units are based on ACTC/ABAG projections for 2005, plus projects completed between 2005 and 2012.
2. Households assume a 5 percent vacancy rate in the residential units.
3. Population assumes 2.1 people per household.
4. Existing non-residential square feet are estimated based on existing building footprint square footage, multiplied by the number of stories in existing buildings.
5. Existing jobs are based on ACTC/ABAG projections for 2005
6. Plan jobs are based on one job for every 350 square feet of retail space, one job for every 400 square feet of office space, and one job for every 1,000 square feet of institutional
7. Net new development means that any existing land uses that would be replaced are subtracted.
8. No Project is defined by ACTC/ABAG projections 2005-2035 by TAZ minus projects completed between 2005 and 2012 (which are included in the existing condition).

Summary of Impacts and Environmentally Superior Alternative

Table ES-3 presents a summary of the proposed Plan impacts identified in the EIR, along with existing Standard Conditions of Approval and Uniformly Applied Development Standards (referred to in this EIR as Standard Conditions or Approval, or SCAs) and proposed Plan policies that reduce these impacts. The City's SCAs are incorporated into projects as conditions of approval regardless of a project's environmental determination. As applicable, the SCAs are designed to, and will, substantially mitigate environmental effects. If an SCA would reduce a potentially significant impact to less than significant, the impact is determined to be less than significant and no mitigation is recommended. In some cases, the proposed Plan includes policies designed to avoid or minimize impacts. Where these policies are needed to minimize a significant impact or to reduce the impact to a less than significant level, these policies are also listed. The significance of each impact with implementation of the SCAs and proposed Plan policies is also shown in **Table ES-3**. The level of significance is determined by comparing the impact to the significance thresholds described in Chapter 3. Based on the comparative analysis in Chapter 4 of this EIR, and setting aside the Trends-Based No Project Alternative, as it would not satisfy basic objectives of the Plan, namely the enhancement of a higher-density and –intensity transit-oriented neighborhood adjacent to downtown Oakland and directly accessible to the regional transit system (as provided by CEQA), the Reduced Scope Alternative is identified as the environmentally superior alternative. All new development under the proposed Plan would be in the form of infill development—the redevelopment of existing sites—and this is true of each of the alternatives. Therefore, impacts are similar across the alternatives for many issue areas. For some issue areas, any alternative except for the ACTC Defined No Project or Trends-Based No Project alternatives is preferred since key policies are included that would reduce potential impacts to less than significant. For other issue areas, the extent of future development is the most important factor. For these issue areas the Reduced Scope Alternative and the Trends-Based No Project are generally preferred, since both involve less future development than under the proposed Plan. The Enhanced TDM Alternative is primarily identified as preferred in relation to greenhouse gases and climate change.

The lower growth under the Reduced Scope Alternative means it would likely result in fewer impacts related to traffic and transportation, as well as population-related externalities such as parks and recreation, police and fire services, schools, demand for water supply and wastewater services. The Reduced Scope Alternative would also likely result in fewer impacts related to historic resources and aesthetics, particularly in terms of scenic vistas and shade and shadow given the lower building heights. The Trends-Based No Project is also preferred for the same issue areas as the Reduced Scope Alternative, and the alternative's substantially lower traffic generation would reduce the number of mitigable impacts and reduce the cost of necessary capital improvements (though not reducing any significant and unavoidable impacts to less than significant). Consistent with CEQA Guidelines, the Trends-Based No Project Alternative is set aside for selection as the environmentally superior alternative.

While the Reduced Scope Alternative is identified as the environmentally superior alternative, it would not reduce any significant and avoidable impacts including for traffic, TACs or odors, or historic resources, to less than significant. As described in Section 4.1, due to the nature of the impacts identified, no alternative is available that would reduce these impacts to less than significant.

There are also tradeoffs associated with the Reduced Scope Alternative. It would be environmentally superior to the ACTC Defined No Project and the Trends-Based No Project because it would include the same policies and guidance on development that is included in the Plan. Neither of the No Project alternatives would include these policies that are designed to minimize environmental impacts while ensuring a high quality urban environment that incorporates the goals and vision of the community. However, the Reduced Scope Alternative would be less successful than the Plan in meeting the key objectives and visions for the area, such as achieving high-density Transit-Oriented-Development near the Lake Merritt BART Station, increasing activity and safety in the area through the addition of jobs and housing, increasing the housing supply accommodating the future population including residents of all incomes and sizes, and increasing access to jobs. It would also be less successful than the Enhanced TDM Alternative and ACTC Defined No Project alternative on these points.

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
3.1	**Land Use and Housing**				
Impact LU-1	New development under the proposed Plan would not physically divide an existing community.	n/a	n/a	None Required	Less than Significant
Impact LU-2	New development under the proposed Plan would not result in fundamental conflicts between adjacent or nearby land uses.	n/a	n/a	None Required	Less than Significant
Impact LU-3	New development under the proposed Plan would not fundamentally conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the proposed Plan (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.	n/a	n/a	None Required	Less than Significant

[3] For complete mitigation measure text, see chapter.

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact LU-4	New development under the proposed Plan would not displace substantial numbers of housing units or people, necessitating the construction of replacement housing elsewhere in excess of that contained in the City's Housing Element.	n/a	n/a	None Required	Less than Significant
Impact LU-5	New development under the proposed Plan would not induce substantial population growth in a manner not contemplated in the General Plan, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extensions of roads or other infrastructure), such that additional infrastructure is required but the impacts of such were not previously considered or analyzed.	n/a	n/a	None Required	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact LU-6	Development following the proposed Plan in combination with past, present, and reasonably foreseeable maximum development in Oakland, would not fundamentally conflict with adjacent or nearby land uses, or fundamentally conflict with existing plans to address environmental concerns.	n/a	n/a	None Required	Less than Significant
3.2	Transportation and Traffic				
Impact TRAN -1	The Project would degrade the intersection of Lake Merritt Boulevard and 11th Street (Intersection #14) from LOS A to LOS F and increase the average delay by four or more seconds during the PM peak hour in Existing Plus Project conditions.	n/a	C-1, C-10, C-33, C-58.	**Mitigation Measure TRAN-1**: Implement the following measures: • Optimize signal timing (i.e., changing the amount of green time assigned to each lane of traffic approaching the intersection) for the PM peak hour. • Coordinate the signal timing changes at this intersection with the adjacent intersections that are in the same signal coordination group.	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact TRAN-2	The Project would degrade the intersection of 1st Avenue and International Boulevard (Intersection #15) from LOS E to LOS F and increase the average delay by four or more seconds during the AM peak hour in Existing Plus Project conditions.	n/a	C-1, C-10, C-33, C-58.	None Feasible	**Significant and Unavoidable**
Impact TRAN-3	The Project would degrade the intersection of Madison Street and 10th Street (Intersection #20) from LOS B to LOS F and increases the average delay by four or more seconds during the AM peak hour in Existing Plus Project conditions.	n/a	C-1, C-10, C-33, C-58.	**Mitigation Measure TRAN-3:** Implement the following measures: • Optimize signal timing (i.e., changing the amount of green time assigned to each lane of traffic approaching the intersection) for the AM peak hour. • Coordinate this signal timing changes at this intersection with the adjacent intersections that are in the same signal coordination group.	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact TRAN-4	The Project would degrade the intersection of Oak Street and 10th Street (Intersection #21) from LOS B to LOS F and increases the average delay by four or more seconds during the AM peak hour in Existing Plus Project conditions.	n/a	C-1, C-10, C-33, C-58.	None Feasible	**Significant and Unavoidable**
Impact TRAN-5	The Project would degrade the intersection of Jackson Street and 7th Street (Intersection #32) from LOS B to LOS F and increases the average delay by four or more seconds during the AM and PM peak hours in Existing Plus Project conditions.	n/a	C-1, C-10, C-33, C-58.	**Mitigation Measure TRAN-5:** Implement the following measures: • Optimize signal timing (i.e., changing the amount of green time assigned to each lane of traffic approaching the intersection). • Coordinate the signal timing changes at this intersection with the adjacent intersections that are in the same signal coordination group.	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact TRAN-6	The Project would degrade the intersection of Oak Street and 6th Street (Intersection #38) from LOS A to LOS F and increases the average delay by four or more seconds during the PM peak hour in Existing Plus Project conditions.	n/a	C-1, C-10, C-33, C-58.	None Feasible	**Significant and Unavoidable**
Impact TRAN-7	The Project would degrade the intersection of Jackson Street and 5th Street (Intersection #39) from LOS C to LOS F and increases the average delay by four or more seconds during the PM peak hour in Existing Plus Project conditions.	n/a	C-1, C-10, C-33, C-58.	None Feasible	**Significant and Unavoidable**
Impact TRAN-8	The Project would degrade from LOS E to LOS F and/or cause an increase in the Volume to Capacity (V/C) ratio of 0.03 or greater in both directions of the I-880 freeway segments between Oak Street and 5th Avenue under Existing Plus Project conditions.	n/a	C-1, C-7, C-46, C-58.	None Feasible	**Significant and Unavoidable**

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact TRAN-9	The Project would degrade the intersection of Brush Street and 12th Street (Intersection #10) from LOS E to LOS F and increase the average delay by four or more seconds during the AM peak hour in Interim 2020 Plus Project conditions.	n/a	C-1, C-10, C-33, C-58.	None Feasible	**Significant and Unavoidable**
Impact TRAN-10	The project would degrade the intersection of Jackson Street and 6th Street (Intersection #36) during the AM peak hour in Interim 2020 Plus Project conditions by increasing the v/c ratio by 0.03 or more; during the PM peak hour in Interim 2020 Plus Project conditions it would degrade the intersection from LOS E to LOS F and increase the average delay by four or more seconds.	n/a	C-1, C-10, C-33, C-58.	**Mitigation Measure TRAN-10:** Implement the following measures: • Optimize signal timing (i.e., changing the amount of green time assigned to each lane of traffic approaching the intersection) for the PM peak hour. • Coordinate the signal timing changes at this intersection with the adjacent intersections that are in the same signal coordination group.	**Significant and Unavoidable**

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact TRAN-11	The Project would degrade the intersection of Oak Street and 6th Street (Intersection #38) from LOS B to LOS F in the AM peak hour and from LOS D to LOS F in the PM peak hour and increases the average delay by four or more seconds during both peak hours in Interim 2020 Plus Project conditions.	n/a	C-1, C-10, C-33, C-58.	**Mitigation Measure TRAN-11:** Implement the following measures: • Optimize signal timing (i.e., changing the amount of green time assigned to each lane of traffic approaching the intersection). • Create an interconnected corridor along Oak Street from 5th to 14th Streets, and coordinate the signal timing changes at this intersection with the coordination group.	**Significant and Unavoidable**

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact TRAN-12	The Project would degrade the intersection of Oak Street and 5th Street (Intersection #41), which is currently operating at LOS F, by increasing the total intersection v/c ratio by 0.03 or more during the PM peak hour in Interim 2020 Plus Project conditions.	n/a	C-1, C-10, C-33, C-58.	**Mitigation Measure TRAN-12:** Implement Mitigation Measure TRAN-11— • Optimize signal timing (i.e., changing the amount of green time assigned to each lane of traffic approaching the intersection). • Create an interconnected corridor along Oak Street from 5th to 14th Streets, and coordinate the signal timing changes at this intersection with the coordination group.	**Significant and Unavoidable**

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact TRAN-13	The Project would degrade the V/C ratio by 0.03 or more at the intersection of Grand Avenue and Broadway (Intersection #1) operating at LOS F in the PM peak hour in Cumulative 2035 Plus Project Conditions.	n/a	C-1, C-10, C-33, C-58.	**Mitigation Measure TRAN-13:** Implement the following measures: • Provide permitted-protected left-turn phasing for the northbound and southbound approaches. • Optimize signal timing (i.e., changing the amount of green time assigned to each lane of traffic approaching the intersection). • Coordinate the signal timing changes at this intersection with the adjacent intersections that are in the same signal coordination group.	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact TRAN-14	The Project would degrade the intersection of Madison Street and 14th Street (Intersection #5) from LOS C to LOS F and increases the average delay by four or more seconds during the PM peak hour in the Cumulative 2035 Plus Project conditions.	n/a	C-1, C-10, C-33, C-58.	**Mitigation Measure TRAN-14**: Implement the following measures: • Optimize the signal timing (i.e., changing the amount of green time assigned to each lane of traffic approaching the intersection). • Create an interconnected corridor along Madison Street from 5th to 14th Streets, and coordinate the signal timing changes at this intersection with the coordination group.	**Significant and Unavoidable**

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact TRAN-15	The Project would degrade the intersection of Madison Street and 11th Street (Intersection #19) from LOS C to LOS F and increases the average delay by four or more seconds during the PM peak hour under Cumulative 2035 Plus Project conditions.	n/a	C-1, C-10, C-33, C-58.	**Mitigation Measure TRAN-15**: Implement Mitigation Measure TRAN-14— • Optimize the signal timing (i.e., changing the amount of green time assigned to each lane of traffic approaching the intersection). • Create an interconnected corridor along Madison Street from 5th to 14th Streets, and coordinate the signal timing changes at this intersection with the coordination group.	**Significant and Unavoidable**

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact TRAN-16	The Project would degrade the intersection of Madison Street and 10th Street (Intersection #20) from LOS B to LOS F and increases the average delay by four or more seconds during the AM and PM peak hours under Cumulative 2035 Plus Project conditions.	n/a	C-1, C-10, C-33, C-58.	**Mitigation Measure TRAN-16:** Implement Mitigation Measure TRAN-14— • Optimize the signal timing (i.e., changing the amount of green time assigned to each lane of traffic approaching the intersection). • Create an interconnected corridor along Madison Street from 5th to 14th Streets, and coordinate the signal timing changes at this intersection with the coordination group.	**Significant and Unavoidable**

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact TRAN-17	The Project would degrade the intersection of Oak Street and 10th Street (Intersection #21) from LOS D to LOS F during the AM peak hour and from LOS B to LOS F during the PM peak hour, and increases the average delay by four or more seconds during the AM and PM peak hours under Cumulative 2035 Plus Project conditions.	n/a	C-1, C-10, C-33, C-58.	**Mitigation Measure TRAN-17**: Implement the following measures: • Optimize the signal timing (i.e., changing the amount of green time assigned to each lane of traffic approaching the intersection) • Coordinate the signal timing changes at this intersection with the adjacent intersections that are in the same signal coordination group within the Oak Street interconnect corridor (5th to 14th Streets).	**Significant and Unavoidable**
Impact TRAN-18	The Project would degrade the intersection of Harrison Street and 8th Street (Intersection #26) by increasing the V/C ratio by 0.03 or more during the AM peak hour under Cumulative 2035 Plus Project conditions.	n/a	C-1, C-10, C-33, C-58.	None Feasible	**Significant and Unavoidable**

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact TRAN-19	The Project would degrade the intersection of Jackson Street and 8th Street (Intersection #27) by increasing the V/C ratio by 0.03 or more during the AM and PM peak hours under Cumulative 2035 Plus Project conditions.	n/a	C-1, C-10, C-33, C-58.	**Mitigation Measure TRAN-19**: Implement the following measures: • Optimize the signal timing (i.e., changing the amount of green time assigned to each lane of traffic approaching the intersection) for the AM peak hour. • Coordinate the signal timing changes at this intersection with the adjacent intersections.	**Significant and Unavoidable**

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact TRAN-20	The Project would degrade the intersection of Oak Street and 8th Street (Intersection #29) during the AM peak hour by increasing the V/C ratio by 0.03 or more, and during the PM peak hour from LOS D to LOS F and increases the average delay by four or more seconds under Cumulative 2035 Plus Project conditions.	n/a	C-1, C-10, C-33, C-58.	**Mitigation Measure TRAN-20:** Implement Mitigation Measure TRAN-17— • Optimize the signal timing (i.e., changing the amount of green time assigned to each lane of traffic approaching the intersection) • Coordinate the signal timing changes at this intersection with the adjacent intersections that are in the same signal coordination group within the Oak Street interconnect corridor (5th to 14th Streets).	**Significant and Unavoidable**
Impact TRAN-21	The Project would degrade the intersection of Jackson Street and 7th Street (Intersection #32) by increasing the V/C ratio by 0.03 or more during the PM peak hour under Cumulative 2035 Plus Project conditions.	n/a	C-1, C-10, C-33, C-58.	None Feasible	**Significant and Unavoidable**

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact TRAN-22	The Project would degrade the intersection of Oak Street and 7th Street (Intersection #34) from LOS E to LOS F and increases the average delay by four or more seconds during the PM peak hour under Cumulative 2035 Plus Project conditions.	n/a	C-1, C-10, C-33, C-58.	**Mitigation Measure TRAN-22:** Implement Mitigation Measure TRAN-17— • Optimize the signal timing (i.e., changing the amount of green time assigned to each lane of traffic approaching the intersection) • Coordinate the signal timing changes at this intersection with the adjacent intersections that are in the same signal coordination group within the Oak Street interconnect corridor (5th to 14th Streets).	**Significant and Unavoidable**
Impact TRAN-23	The Project would degrade the intersection of 5th Avenue and 7th Street/8th Street (Intersection #35) by increasing the V/C ratio by 0.03 or more during the AM and PM peak hours under Cumulative 2035 Plus Project conditions.	n/a	C-1, C-10, C-33, C-58.	None Feasible	**Significant and Unavoidable**

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact TRAN-24	The Project would degrade the intersection of Jackson Street and 6th Street (Intersection #36) by increasing the V/C ratio by more than 0.03 during the AM and PM peak hours under Cumulative 2035 Plus Project conditions.	n/a	C-1, C-10, C-33, C-58.	None Feasible	**Significant and Unavoidable**
Impact TRAN-25	The Project would degrade the intersection of Oak Street and 6th Street (Intersection #38) from LOS D/E to LOS F and increases the average delay by four or more seconds during the AM and PM peak hours, respectively, under Cumulative 2035 Plus Project conditions.	n/a	C-1, C-10, C-33, C-58.	**Mitigation Measure TRAN-25:** Implement Mitigation Measure TRAN-17— • Optimize the signal timing (i.e., changing the amount of green time assigned to each lane of traffic approaching the intersection) • Coordinate the signal timing changes at this intersection with the adjacent intersections that are in the same signal coordination group within the Oak Street interconnect corridor (5th to 14th Streets).	**Significant and Unavoidable**

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact TRAN-26	The Project would degrade the intersection of Oak Street and 5th Street (Intersection #41) by increasing the V/C ratio by more than 0.03 during the AM and PM peak hours under Cumulative 2035 Plus Project conditions.	n/a	C-1, C-10, C-33, C-58.	**Mitigation Measure TRAN-26:** Implement Mitigation Measure TRAN-17— • Optimize the signal timing (i.e., changing the amount of green time assigned to each lane of traffic approaching the intersection) • Coordinate the signal timing changes at this intersection with the adjacent intersections that are in the same signal coordination group within the Oak Street interconnect corridor (5th to 14th Streets).	**Significant and Unavoidable**
Impact TRAN-27	Traffic generated by the Project would affect the Level of Service on the roadway segments under Cumulative 2035 Plus Project conditions. The segment of Oak Street between 2nd Street and Embarcadero exceeds the standard of LOS E in the PM peak hour**.**	n/a	C-1, C-10, C-33, C-58.	None Feasible	**Significant and Unavoidable**

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact TRAN -28	At Constitution Way and Marina Village Parkway (Intersection #43), the Project could cause increases in pedestrian delay in the Existing Plus Project Conditions.	SCA-25	C-58	None Feasible	**Significant and Unavoidable**
Impact TRAN -29	At the actuated signal at Constitution Way and Atlantic Avenue (Intersection #45), the Project would cause increases in pedestrian delay for the west leg of the intersection in the Existing Plus Project.	SCA-25	C-58	None Feasible	**Significant and Unavoidable**
3.3	**Air Quality**				
Impact AQ-1	Implementation of the proposed Plan would not fundamentally conflict with the Bay Area Clean Air Plan (CAP) because the plan does not demonstrate reasonable efforts to implement control measures contained in the CAP.	SCA-A, SCA-B, SCA-25,	n/a	None Required	Less than Significant
Impact AQ-2	Implementation of the proposed Plan would not fundamentally conflict with the primary goals of the 2010 CAP because the projected rate of increase in or vehicle trips would be less than the projected rate of increase in population.	n/a	n/a	None Required	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact AQ-3	Development facilitated by the proposed Plan would potentially expose sensitive receptors to substantial health risks from toxic air contaminants (TACs) from sources including both diesel particulate matter (DPM) and gaseous emissions. While compliance with the City's Standard Conditions of Approval would entail the preparation of site-specific health risk assessments which would reduce DPM exposure to a less than significant level, there is no certainty that SCA adherence would not with certainty reduce risk from gaseous TACs to a less-than-significant level.	SCA-B	n/a	None Feasible for Gaseous TACs.	**Significant and Unavoidable**

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact AQ-4	Implementation of the proposed Plan would not identify existing and planned sources of odors with policies to reduce potential odor impacts and would frequently and for a substantial duration, create or expose sensitive receptors to substantial objectionable odors affecting a substantial number of people.	n/a	n/a	None Feasible.	**Significant and Unavoidable**
AQ-5	Cumulative Air Quality Impacts.	SCA-A, SCA-B, SCA-25	n/a	None feasible for gaseous TACs or odors.	**Significant and Unavoidable**

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
3.4	**Greenhouse Gases and Global Climate Change**				
Impact GHG-1	New development under the proposed Plan would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, specifically: for a project involving a land use development, produce total emissions of more than 1,100 metric tons of CO_2e annually AND more than 4.6 metric tons of CO_2e per service population annually; or for a project involving a stationary source, produce total emissions of more than 10,000 metric tons of CO_2e annually.	SCA-A, SCA-F, SCA-H, SCA-1, SCA-12, SCA-13, SCA-15, SCA-17, SCA-18, SCA-24, SCA-25, SCA-36, SCA-46	n/a	None Required	Less than Significant
Impact GHG-2	New development under the proposed Plan would not fundamentally conflict with an applicable plan, policy or regulation adopted for the purpose of reducing greenhouse gas emissions.	SCA-A, SCA-F, SCA-H, SCA-1, SCA-12, SCA-13, SCA-15, SCA-17, SCA-18, SCA-24, SCA-25, SCA-36, SCA-46	n/a	None Required	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact GHG-3	New development under the proposed Station Area Plan in combination with regional growth would not result in a considerable contribution to the cumulative effects of global climate change.	SCA-A, SCA-F, SCA-H, SCA-1, SCA-12, SCA-13, SCA-15, SCA-17, SCA-18, SCA-24, SCA-25, SCA-36, SCA-46	n/a	None Required	Less than Significant
3.5	**Parks and Recreation**				
Impact PR-1	New development under the proposed Plan would not increase the use of existing neighborhood or regional parks or other recreation facilities such that substantial physical deterioration would occur or be accelerated.	n/a	n/a	None Required	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact PR-2	New development under the proposed Plan would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.	n/a	n/a	None Required	Less than Significant
Impact CUM PR-3	New development under the proposed Plan in combination with other past, present, or reasonably foreseeable maximum development in and around the Planning Area would not result in a significantly increased demand for recreational facilities.	n/a	n/a	None Required	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
3.6	**Public Services**				
Impact PUB-1	Future development under the proposed Plan would not result in substantial adverse physical impacts associated with the provision of new or physically altered facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection.	SCA-4, SCA-71, SCA-72, SCA-73	n/a	None Required	Less than Significant
Impact PUB-2	Future development under the proposed Plan would not result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection.	n/a	n/a	None Required	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact PUB-3	Future development under the proposed Plan would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools or other public facilities.	n/a	n/a	None Required	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact CUM PUB-4	Future development under the proposed Plan in combination with past, present and reasonably foreseeable maximum development in Oakland, would not result in the need for new or physically altered facilities that would result in substantial adverse physical impacts.	n/a	n/a	None Required	Less than Significant
3.7	**Utilities and Service Systems**				
Impact UTL-1	Development of the Plan Area as proposed would not exceed the wastewater treatment requirements of the San Francisco Regional Water Quality Control Board.	n/a	n/a	None Required	Less than Significant
Impact UTL-2	The proposed Plan would not require or result in construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	SCA-75, SCA-78, SCA-80, SCA-91	n/a	None Required	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact UTL-3	The proposed Plan would not exceed water supplies available to serve the project from existing entitlements and resources, nor require or result in construction of water facilities or expansion of existing facilities, construction of which could cause significant environmental effects.	n/a	n/a	None Required	Less than Significant
Impact UTL-4	The increased generation of wastewater by the proposed Plan would not result in a determination by the wastewater treatment provider which serves or may serve the proposed Plan that it does not have adequate capacity to serve the proposed Plan's projected demand in addition to the providers' existing commitments and require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	SCA-91	n/a	None Required	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact UTL-5	Implementation of the proposed Plan would not not be served by a landfill with insufficient permitted capacity to accommodate the proposed Plan'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, or cause the City to violate applicable federal, state, and local statutes and regulations related to solid waste.	SCA-36	n/a	None Required	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact UTL-6	Implementation of the proposed Plan would not violate applicable federal, state, and local statutes and regulations relating to energy standards; nor result in a determination by the energy provider which serves or may serve the area that it does not have adequate capacity to serve 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.	n/a	n/a	None Required	Less than Significant
Impact UTL-7	Implementation of the proposed Plan, combined with past, present, and reasonably foreseeable maximum development, within and around the Planning Area, would not contribute to a significant adverse cumulative impact on utilities services.	SCA-36, SCA-75, SCA-78, SCA-80, SCA-91	n/a	None Required	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
3.8	**Cultural and Historic Resources**				
Impact CUL-1	Future development under the proposed Plan would cause a substantial adverse change in the significance of an historical resource as defined in CEQA Guidelines section 15064.5.	SCA-56, SCA-57	CR-1, CR-4, CR-5, CR-6, LU-14, LU-15, DG-58 through DG-68.	**Mitigation Measure CUL-1:** Mitigation Measure CUL-1 involving (a) Avoidance, Adaptive Reuse, or Appropriate Relocation of Historically Significant Structures; (b) Future Site-specific Surveys and Evaluations; (c) Recordation and Public Interpretation; or (d) Financial Contributions,), would not reduce the impact to a less than significant level.	**Significant and Unavoidable**
Impact CUL-2	Future development under the proposed Plan would not cause a substantial adverse change in the significance of archaeological resources pursuant to CEQA Guidelines section 15064.5.	SCA-52, SCA-E	n/a	None Required	Less than Significant
CUL-3	Future development under the proposed Plan would not disturb any human remains, including those interred outside formal cemeteries.	SCA-53	n/a	None Required	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact CUL-4	Future development under the proposed Plan would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	SCA-54	n/a	None Required	Less than Significant
Impact CUM CUL-5	The proposed Plan would contribute to a cumulative impact on historic resources.	SCA-56, SCA-57	CR-1, CR-3, CR-4, CR-5, CR-6, LU-14, LU-15, DG-58 through DG-68.	**Mitigation Measure CUL-1:** Mitigation Measure CUL-1 involving (a) Avoidance, Adaptive Reuse, or Appropriate Relocation of Historically Significant Structures; (b) Future Site-specific Surveys and Evaluations; (c) Recordation and Public Interpretation; or (d) Financial Contributions,), would not reduce the impact to a less than significant level.	**Significant and Unavoidable, Proposed Plan Contribution Cumulative Considerable**

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
3.9	**Aesthetics**				
Impact AES-1	New development under the proposed Plan would not have a substantial adverse effect on a public scenic vista.	SCA-13, SCA-17, SCA-15, SCA-18, SCA-19	n/a	None Required	Less than Significant
Impact AES-2	New development facilitated by the proposed Plan would not substantially degrade the existing visual character or quality of the Planning Area and its surroundings.	SCA-12, SCA-13, SCA-15, SCA-17, SCA-18, SCA-19, SCA-20, SCA-21, SCA-40	n/a	None Required	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact AES-3	New development facilitated by the proposed Plan would not create a new source of substantial light or glare which would substantially and adversely affect day or nighttime views in the area.	SCA-40	n/a	None Required	Less than Significant
Impact AES-4	New development facilitated by the proposed Plan would not cast shadow that substantially impairs the beneficial use of any public or quasi-public park, lawn, garden, or open space.	n/a	n/a	None Required	Less than Significant
Impact AES-5	New development facilitated by the proposed Plan would not 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.	n/a	n/a	None Required	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact CUM AES-6	New development under the proposed Plan, in combination with other past, present, and reasonably foreseeable future projects within and around the Planning Area, would not adversely affect scenic public vistas or scenic resources.	SCA-12, SCA-13, SCA-15, SCA-17, SCA-18, SCA-19, SCA-20, SCA-21, SCA-40	n/a	None Required	Less than Significant
3.10			**Noise**		
Impact NO-1	New development under the proposed Plan would not generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code section 17.120.050) regarding construction noise, except if an acoustical analysis is performed that identifies recommended measures to reduce potential impacts, or generate noise in violation of the City's nuisance standards (Oakland Municipal Code section 8.18.020) regarding persistent construction-related noise.	SCA-28, SCA-29, SCA-30, SCA-39	n/a	None Required	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact NO-2	New development under the proposed Plan would not generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code section 17.120.050) regarding operational noise.	SCA-32	n/a	None Required	Less than Significant
Impact NO-3	New development under the proposed Plan would not generate noise resulting in a 5 dBA permanent increase in ambient noise levels in the Plan vicinity above levels existing without the proposed Plan.	SCA-31, SCA-32	n/a	None Required	Less than Significant
Impact NO-4	New development under the proposed Plan would not expose persons to interior L_{dn} or CNEL greater than 45 dBA for multi-family dwellings, hotels, motels, dormitories and long-term care facilities (and may be extended by local legislative action to include single-family dwellings), per California Noise Insulation Standards (CCR Part 2, Title 24).	SCA-31	n/a	None Required	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact NO-5	New development under the proposed Plan would not expose people in the Planning Area to community noise in conflict with the land use compatibility guidelines of the Oakland General Plan after incorporation of all applicable Standard Conditions of Approval.	SCA-31	n/a	None Required	Less than Significant
Impact NO-6	New development under the proposed Plan would not expose persons to noise levels in excess of applicable standards established by a regulatory agency (e.g., occupational noise standards of the Occupational Safety and Health Administration (OSHA)).	n/a	n/a	None Required	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact NO-7	During either project construction or operation, new development under the proposed Plan could expose persons to or generate groundborne vibration that exceeds criteria established by the Federal Transit Administration (FTA).	SCA-38, SCA-39	n/a	None Required	Less than Significant
Impact CUM NO-8	Under a cumulative scenario, new development under the proposed Plan, together with regional growth, would not result in a 5-dBA permanent increase in ambient noise levels in the proposed Plan vicinity without the proposed Plan (i.e., the cumulative condition including the proposed Plan compared to the existing conditions) and a 3-dBA permanent increase is attributable to the proposed Plan (i.e., the cumulative condition including the proposed Plan compared to cumulative baseline conditions without the proposed Plan.).	SCA-31, SCA-32	n/a	None Required	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
3.11	**Biological Resources**				
Impact BIO-1	New development under the proposed Plan would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.	SCA-44, SCA-46, SCA-82, SCA-83, SCA-84, SCA-85, SCA-86, SCA-87, SCA-88, SCA-D	n/a	None Required	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact BIO-2	New development under the proposed Plan would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.	SCA-82, SCA-83, SCA-84, SCA-85, SCA-86, SCA-87, SCA-88	n/a	None Required	Less than Significant
Impact BIO-3	New development under the proposed Plan would not have a substantial adverse effect on federally protected wetlands (as defined by section 404 of the Clean Water Act) or state protected wetlands, through direct removal, filling, hydrological interruption, or other means.	SCA-82, SCA-83, SCA-84, SCA-85, SCA-86, SCA-87, SCA-88	n/a	None Required	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact BIO-4	New development under the proposed Plan would not substantially interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	SCA-43, SCA-44, SCA-45, SCA-46, SCA-47, SCA-82, SCA-83, SCA-84, SCA-85, SCA-86, SCA-87, SCA-88, SCA-D	OS-18.	None Required	Less than Significant
Impact BIO-5	New development under the proposed Plan would not fundamentally conflict with the City of Oakland Tree Protection Ordinance (Oakland Municipal Code (OMC) Chapter 12.36) by removing protected trees under certain circumstances.	SCA 43, SCA 44, SCA 45, SCA 46, SCA 47	n/a	None Required	Less than Significant
Impact BIO-6	New development under the proposed Plan would not fundamentally conflict with the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16) intended to protect biological resources.	SCA-82, SCA-83, SCA-84, SCA-85, SCA-86, SCA-87, SCA-88	n/a	None Required	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact CUM BIO-7	Development projects associated with the implementation of the Plan in conjunction with other past, present, and reasonably foreseeable maximum development in the City of Oakland would not result in cumulative adverse impacts on special-status species or other biological resources.	SCA-43-47, SCA-82-88, SCA-D	n/a	None Required	Less than Significant Cumulative Impact

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
3.12	**Geology and Soils**				
Impact GEO-1	New development under the proposed Plan could expose people or structures to substantial risk of loss, injury, or death involving: • Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map or Seismic Hazards Map issued by the State Geologist for the area or based on other substantial evidence of a known fault; • Strong seismic ground shaking; • Seismic-related ground failure, including liquefaction, lateral spreading, subsidence, collapse; or • Landslides.	SCA-58, SCA-60, SCA-93	n/a	None Required	Less than Significant
Impact GEO-2	New development under the proposed Plan located on expansive soil, as defined in section 1802.3.2 of the California Building Code, would not create substantial risks to life, property, or creeks/waterways.	SCA-58, SCA-60	n/a	None Required	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact GEO-3	New development under the proposed Plan would not be located above a well, pit, swamp, mound, tank vault, or unmarked sewer line, landfill for which there is no approved closure or post-closure plan, or unknown fill soils, creating substantial risks to life or property.	SCA-34, SCA-55, SCA-58, SCA-60	n/a	None Required	Less than Significant
Impact CUM GEO-4	Implementation of the proposed Plan, combined with past, present, and reasonably foreseeable future development in the vicinity, would not result in an increased risk of exposure of people and property to geologic hazards.	SCA-58, SCA-60, SCA-93	n/a	None Required	Less than Significant Cumulative Impact

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
3.13	**Hazards and Hazardous Materials**				
Impact HAZ-1	New development under the proposed Plan would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	SCA-74	n/a	None Required	Less than Significant
Impact HAZ-2	Development under the proposed Plan would not 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.	SCA-35, SCA-61, SCA-62, SCA-63, SCA-64, SCA-65, SCA-66, SCA-67, SCA-68, SCA-69	n/a	None Required	Less than Significant
Impact HAZ-3	New development under the proposed Plan would not create a significant hazard to the public through the storage or use of acutely hazardous materials near sensitive receptors.	SCA-74	n/a	None Required	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact HAZ-4	New development under the proposed Plan would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one quarter-mile of an existing or proposed school.	SCA-74	n/a	None Required	Less than Significant
Impact HAZ-5	New development under the proposed Plan located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 (i.e. the "Cortese List") but would not as a result create a significant hazard to the public or the environment.	SCA-35, SCA-62, SCA-63, SCA-64, SCA-65, SCA-66, SCA-67, SCA-68, SCA-69	n/a	None Required	Less than Significant
Impact HAZ-6	New development under the proposed Plan would not result in fewer than two emergency access routes for streets exceeding 600 feet in length unless otherwise determined to be acceptable by the Fire Chief, or his/her designee, in specific instances due to climatic, geographic, topographic, or other conditions.	n/a	n/a	None Required	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact HAZ-7	New development under the proposed Plan would not fundamentally impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	n/a	n/a	None Required	Less than Significant
Impact CUM HAZ-8	New development following the proposed Plan, combined with past, present, and reasonably foreseeable maximum development in Oakland, would not create a significant hazard to the public or the environment with regard to hazardous materials and other hazards.	SCA-35, SCA-61, SCA-62, SCA-63, SCA-64, SCA-65, SCA-66, SCA-67, SCA-68, SCA-69, SCA-74,	n/a	None Required	Less than Significant Cumulative Impact, Project Contribution Not Cumulatively Considerable

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
3.14	**Hydrology and Water Quality**				
Impact HYD-1	Implementation of the proposed Plan would not violate any water quality standards or waste discharge requirements.	SCA-34, SCA-35, SCA-55, SCA-64, SCA-68, SCA-69, SCA-75, SCA-78, SCA-79, SCA-80, SCA-81, SCA-82, SCA-83, SCA-84, SCA-85, SCA-86, SCA-91	n/a	None Required	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact HYD-2	Implementation of the proposed Plan would not 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 groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or proposed uses for which permits have been granted).	SCA-75, SCA-78, SCA-80, SCA-81	n/a	None Required	Less than Significant
Impact HYD-3	Implementation of the proposed Plan would not result in substantial erosion or siltation on- or off-site that would affect the quality of receiving waters.	SCA-34, SCA-35, SCA-55, SCA-64, SCA-68, SCA-69, SCA-75, SCA-78, SCA-79, SCA-80, SCA-81, SCA-82, SCA-83, SCA-84, SCA-85, SCA-86, SCA-91	n/a	None Required	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact HYD-4	Implementation of the proposed Plan would not result in substantial flooding on- or off-site.	SCA-34, SCA-55, SCA-75, SCA-78, SCA-79, SCA-80, SCA-81, SCA-82, SCA-83, SCA-84, SCA-85, SCA-86, SCA-91	n/a	None Required	Less than Significant
Impact HYD-5	Implementation of the proposed Plan would not create or contribute substantial runoff which would exceed the capacity of existing or planned stormwater drainage systems.	SCA-34, SCA-55, SCA-75, SCA-78, SCA-79, SCA-80, SCA-81, SCA-82, SCA-83, SCA-84, SCA-85, SCA-86, SCA-91	n/a	None Required	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact HYD-6	Implementation of the proposed Plan would not create or contribute substantial runoff which would be an additional source of polluted runoff, or otherwise substantially degrade water quality.	SCA-34, SCA-35, SCA-55, SCA-64, SCA-68, SCA-69, SCA-75, SCA-78, SCA-79, SCA-80, SCA-81, SCA-82, SCA-83, SCA-84, SCA-85, SCA-86, SCA-91	n/a	None Required	Less than Significant
Impact HYD-7	Implementation of the proposed Plan would not place housing or other structures 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 that would impede or redirect flood flows.	SCA-89, SCA-90	n/a	None Required	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact HYD-8	Implementation of the proposed Plan would not expose people or structures to a substantial risk of loss, injury, or death involving flooding.	SCA-89, SCA-90	n/a	None Required	Less than Significant
Impact HYD-9	Implementation of the proposed Plan would not expose people or structures to a substantial risk of loss, injury, or death as a result of seiche, tsunami, or mudflow.	n/a	n/a	None Required	Less than Significant
Impact HYD-10	Implementation of the proposed Plan would not substantially alter the existing drainage pattern of the area, including through the alteration of the course or increasing the rate or amount of flow of a creek in a manner that would result in substantial erosion, siltation, or flooding both on- or off-site.	SCA-34, SCA-35, SCA-55, SCA-64, SCA-68, SCA-69, SCA-75, SCA-78, SCA-79, SCA-80, SCA-81, SCA-82, SCA-83, SCA-84, SCA-85, SCA-86, SCA-87, SCA-88, SCA-91	n/a	None Required	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
Impact HYD-11	Implementation of the proposed Plan would not fundamentally conflict with the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16) intended to protect hydrological resources.	SCA-82, SCA-83, SCA-84, SCA-85, SCA-86, SCA-87, SCA-88, SCA-89, SCA-90	n/a	None Required	Less than Significant
Impact CUM HYD-12	Development following the proposed Plan in combination with past, present, and reasonably foreseeable maximum development in Oakland, would not adversely affect water quality and hydrology.	SCA-34, SCA-35, SCA-55, SCA-64, SCA-68, SCA-69, SCA-75, SCA-78, SCA-79, SCA-80, SCA-81, SCA-82, SCA-83, SCA-84, SCA-85, SCA-86, SCA-87, SCA-88, SCA-89, SCA-90, SCA-91	n/a	None Required	Less than Significant

Table ES-3: Summary of Impacts, Proposed Plan Policies that Reduce the Impact, Significance, and Mitigation

#	*Environmental Impact*	*Standard Conditions of Approval (SCA)*	*Proposed Plan Policies*	*Mitigation*[3]	*Level of Significance After Application of SCAs, Policies, and/or Mitigation*
3.15	**Impacts Not Significant**				
Agriculture and Forest Resources					
AG-1	Future development under the proposed Plan may affect agriculture and forest resources.	n/a	n/a	None Required	No Impact
Mineral Resources			n/a		
MIN-1	Future development under the proposed Plan may affect mineral resources.	n/a	n/a	None Required	No Impact

1 Introduction

This Environmental Impact Report (EIR) has been prepared on behalf of the City of Oakland in accordance with the California Environmental Quality Act (CEQA). This EIR analyzes the potential significant impacts of the adoption and implementation of the proposed Lake Merritt Station Area Plan (Plan). The proposed Plan will be adopted concurrently with General Plan and Planning Code amendments, Design Guidelines for the Lake Merritt Station Area Plan, and any identified revisions to the City's Standard Conditions of Approval.

1.1 Purpose of the EIR

This environmental assessment of the proposed Lake Merritt Station Area Plan (SCH# 2012032012) fulfills the requirements of CEQA and represents a good faith effort to inform decision-makers, responsible and trustee agencies, and the general public of the proposed action and the range of potential environmental impacts of that action. The EIR process also provides an opportunity to identify environmental benefits of the proposed Plan that might balance some potentially significant adverse environmental impacts. As necessary, the EIR recommends measures to mitigate significant adverse impacts identified in the analysis of the proposed Plan. This EIR also analyzes alternatives to the proposed Plan. As the lead agency for preparing this EIR, the City of Oakland will use it in its review and consideration of the merits of the proposed Plan prior to taking action on it.

This EIR represents the best effort to evaluate the potential environmental effects of the proposed Station Area Plan given its long-term planning horizon. It can be anticipated that conditions will change; however, the assumptions used are the best available at the time of preparation and reflect existing knowledge of patterns of physical and economic development, travel, and technological factors.

1.2 Approach to the EIR

EIR SCOPING

The scope of the EIR was informed by a scoping process conducted at the outset of the EIR process. On March 1, 2012, the City of Oakland issued a Notice of Preparation (NOP), to inform agencies and interested parties of its intent to prepare and distribute a Draft Environmental Impact Report (DEIR) on the proposed Lake Merritt Station Area Plan. The NOP was distributed to governmental agencies, organizations, and persons interested in the proposed Plan. The Agency sent the NOP to agencies with statutory responsibilities in connection with the Project and requested their input on the scope and content of the environmental information that should be addressed in the EIR.

The Landmarks Preservation Advisory Board and the City of Oakland Planning Commission held Scoping Meetings on March 12 and March 21, 2012, respectively, to accept comments regarding the scope of the EIR in response to the NOP. The NOP review period ended on April 1, 2012. The NOP and complete written and oral comments that the Agency received in response to the NOP are included as **Appendix A** to this EIR, which addresses all comments received in response to the NOP that are relevant to environmental issues.

. Many issues were raised in the comments received during this phase; these issues are outlined in the Areas of Controversy/Issues to Be Resolved sub-section of the Executive Summary of this EIR beginning on page ES-6. Each of these is addressed, to the extent that it is relevant to the EIR.

ENVIRONMENTAL REVIEW PROCESS

This EIR is being distributed for a 45-day public review and comment period. Readers are invited to submit written comments on the environmental information and analysis in the document (e.g., does this Draft EIR identify and analyze the possible environmental impacts and recommend appropriate mitigation measures? Does it consider and evaluate a reasonable range of alternatives to the proposed Plan?). Comments are most helpful when they suggest specific alternatives or measures that would better mitigate significant environmental effects. CEQA Guidelines Section 15096(d) calls for responsible agencies to provide comments on those project activities within the agency's area of expertise and to support those comments with either oral or written documentation.

Written comments should be submitted to:

Christina Ferracane
Planning Division
City of Oakland
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, CA 94612
Fax: (510) 238-6538
Email: cferracane@oaklandnet.com
ATTN: Case Number ER110017

Following the close of the public comment period, responses to public input will be prepared and published as a separate document. The Draft EIR text and appendices, together with the responses to comments document, will constitute the Final EIR.

A public hearing to take comments on the Draft EIR will be held before the Planning Commission (see Notice of Availability/Release of Draft EIR in the front of this document). Hearing notices will be mailed to responsible agencies. Additionally, all hearings will be noticed and advertised in the following ways, including but not limited to:

- Notice in local newspapers;
- Written notice to all persons on the Lake Merritt Station Area Plan Project "interested persons" list, which includes those who have attended public meetings and who have specifically requested to be added to the "interested persons" list, and other known parties;

- Written notice to all neighboring jurisdictions, including but not limited to Alameda County, the cities of Piedmont, Emeryville, Alameda, San Leandro, and Berkeley; and
- Notice on the city's website "Current Environmental Review Documents," accessible at: http://www2.oaklandnet.com/Government/o/PBN/OurServices/Application/DOWD009157

USE OF THIS EIR

Pursuant to CEQA, this EIR is a public information document prepared for use by governmental agencies and the public to identify and evaluate potential environmental consequences of the activities facilitated by the proposed Plan, to evaluate and recommend mitigation measures that would substantially lessen or eliminate significant environmental adverse impacts, and to examine a reasonable range of feasible alternatives to the activities facilitated by the proposed Plan. The information contained in this Draft EIR is subject to review and consideration by the City of Oakland and any other responsible agency prior to the City's decision to approve, reject or modify the activities facilitated by the proposed Plan (see *Required Public Agency Approvals,* below).

TIMEFRAME

For analytic purposes in this EIR, the year 2012 is the base year (existing conditions), while the year 2035 is the horizon year (future conditions) when the proposed Plan is assumed to be fully implemented. For some topics, a 2020 interim year is also analyzed. In cases where current data is not available, the default is to use the latest known data to depict the baseline (i.e., existing conditions). The proposed Plan covers approximately a 23-year planning period, and the year 2035 represents the last year of the plan when projects/programs are anticipated to be fully implemented.

ALTERNATIVES

CEQA requires EIRs to evaluate a reasonable range of alternatives to the proposed Plan that could feasibly attain most of the basic project objectives and would avoid or substantially lessen any of the significant environmental impacts. This EIR evaluates five alternatives: the Reduced Scope Alternative, the Enhanced Transportation Demand Management (TDM) Alternative, an ACTC Defined No Project Alternative, a Theoretical Maximum Buildout Alternative, and a Trends-Based No Project Alternative. See Chapter 4 for more details about the alternatives.

CUMULATIVE IMPACTS ASSUMPTIONS

CEQA requires that the EIR examine cumulative impacts, which are created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. In order to assess cumulative impacts, the EIR must analyze either a list of past, present, and probable future projects (the "list method") or a summary of projections contained in an adopted general plan or related planning document (the "forecast method"). Following City of Oakland's CEQA Thresholds of Significance Guidelines (2013), this analysis uses regional growth projections for transportation-related impacts (including transportation-related noise, air quality, and greenhouse gas impacts). For all other impacts, the analysis uses the City of Oakland's most recent List of Major Development Projects (Appendix C). Cumulative impacts are analyzed for each relevant issue area in Chapter 3.

1.3 Scope of the EIR and Level of Analysis

ENVIRONMENTAL ISSUE AREAS

As provided for in the CEQA Guidelines, the focus of this EIR is on those environmental issues and concerns identified as potentially significant by the City of Oakland in its Notice of Preparation (see Appendix A) and issues raised in the public scoping meeting for this EIR. To assess these issues, this EIR covers the following topic areas:

- Land Use, Planning, Population, and Housing;
- Transportation and Traffic;
- Air Quality;
- Climate Change and Greenhouse Gases;
- Parks and Recreation;
- Public Services;
- Utilities and Service Systems;
- Cultural and Historic Resources;
- Aesthetics;
- Biological Resources;
- Geology and Soils;
- Hazards and Hazardous Materials;
- Hydrology and Water Quality.

Each of these topic areas corresponds to a section of Chapter 3: Settings, Impacts, and Mitigation Measures. For each topic, significance thresholds are defined, and impacts are analyzed based on those thresholds.

LEVEL OF ANALYSIS

The degree of specificity in an EIR corresponds to the degree of specificity in the underlying activity described in the EIR. As CEQA specifies, a Program EIR is appropriate for a Specific Plan, under which there will be future development proposals that are 1) related geographically, 2) logical parts in a chain of contemplated actions, 3) connected as part of a continuing program, and 4) carried out under the same authorizing statute or regulatory authority and have similar environmental impacts that can be mitigated in similar ways (CEQA Guidelines Section 15168). For some site-specific purposes, a program-level environmental document may provide sufficient detail to enable an agency to make informed site-specific decisions within the program. This approach would allow agencies the ability to consider program-wide mitigation measures and cumulative impacts that might be slighted in a case-by-case analysis approach, and to carry out an entire program without having to prepare additional site-specific environmental documents. In other cases, the formulation of site-specific issues is unknown until subsequent design occurs leading to the preparation of later project-level environmental documentation. Preparation of a program-level document simplifies the task of preparing subsequent project-level environmental

documents for future projects under the Station Area Plan for which the details are currently unknown. This EIR presents an analysis of the environmental impacts of adoption and implementation of the Station Area Plan. Specifically, it evaluates the physical and land use changes from potential development that could occur with adoption and implementation of the Station Area Plan.

Further, where feasible, and where an adequate level of detail is available such that the potential environmental effects may be understood and analyzed, this EIR provides a project-level analysis to eliminate or minimize the need for subsequent CEQA review of projects that could occur under the Station Area Plan. Although not required under CEQA, some "project-level" impacts of reasonably foreseeable maximum level of build-out of the Station Area Plan are discussed to the extent that such impacts are known. The analysis of potential physical environmental impacts is based on reasonable assumptions about future development that could occur in the Plan Area. The assumed future development is established within the Lake Merritt Station Area Plan Development Program (see Appendix B, Development Potential). Pursuant to CEQA Guidelines Sections 15162-15164, 15168, 15183 and 15183.5, future program- and project-level environmental analyses may be tiered from this EIR.

The City intends to use the streamlining/tiering provisions of CEQA to the maximum feasible extent, so that future environmental review of specific projects are expeditiously undertaken without the need for repetition and redundancy, as provided in CEQA Guidelines section 15152 and elsewhere. Specifically, pursuant to CEQA Guidelines Section 15183, streamlined environmental review is allowed for projects that are consistent with the development density established by zoning, community plan, specific plan, or general plan policies for which an EIR was certified, unless such a project would have environmental impacts peculiar/unique to the project or the project site. Likewise, Public Resources Code section 21094.5 and CEQA Guidelines Section15183.3 also provides for streamlining of certain qualified, infill projects. In addition, CEQA Guidelines Sections 15162-15164 allow for the preparation of a Subsequent (Mitigated) Negative Declaration, Supplemental or Subsequent EIR, and/or Addendum, respectively, to a certified EIR when certain conditions are satisfied. Moreover, California Government Code section 65457 and CEQA Guidelines section 15182 provide that once an EIR is certified and a specific plan adopted, any residential development project, including any subdivision or zoning change that implements and is consistent with the specific plan is generally exempt from additional CEQA review under certain circumstances. The above are merely examples of possible streamlining/tiering mechanisms that the City may pursue and in no way limit future environmental review of specific projects.

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1.4 Other Relevant Plans and Environmental Studies

The following documents are closely relevant to the proposed Plan and this EIR, and are available from the City of Oakland for review:

- City of Oakland, City of Oakland General Plan, Land Use and Transportation Element, March 1998.
  http://www2.oaklandnet.com/Government/o/PBN/OurServices/GeneralPlan/DOWD008821

- City of Oakland, City of Oakland General Plan, Open Space, Conservation and Recreation Element, June 1996. http://www2.oaklandnet.com/Government/o/PBN/OurServices/GeneralPlan/DOWD008821
- City of Oakland, City of Oakland General Plan, Historic Preservation Element, March 1994. http://www2.oaklandnet.com/Government/o/PBN/OurServices/GeneralPlan/DOWD008821
- City of Oakland, City of Oakland General Plan, Noise Element, June 2005. http://www2.oaklandnet.com/Government/o/PBN/OurServices/GeneralPlan/DOWD008821
- City of Oakland, City of Oakland General Plan, Safety Element, November 2004. http://www2.oaklandnet.com/Government/o/PBN/OurServices/GeneralPlan/DOWD008821
- City of Oakland, Housing Element, 2007-2014, Revised Public Review Draft, June 2009. http://www2.oaklandnet.com/oakca/groups/ceda/documents/report/dowd008613.pdf
- City of Oakland, Estuary Policy Plan, June 1999. http://www2.oaklandnet.com/Government/o/PBN/OurServices/GeneralPlan/DOWD008821
- City of Oakland, Lake Merritt Park Master Plan, July 2002. http://www.oaklandnet.com/lakemasterplan/
- City of Oakland, Bicycle Master Plan, December 2007. http://www.oaklandnet.com/lakemasterplan/
- City of Oakland, Proposed Amendments to the Central District Urban Renewal Plan, Draft Environmental Impact Report (ER10-003), March 2011. http://www2.oaklandnet.com/Government/o/PBN/OurServices/Application/EIR/index.htm
- City of Oakland, Measure DD Implementation Project, Draft Environmental Impact Report (ER06-0017), January 2008. http://www2.oaklandnet.com/Government/o/PBN/OurServices/Application/EIR/index.htm
- City of Oakland, Housing Element Update 2007-2014, Draft Initial Study (ER08-009), September 2009. http://www2.oaklandnet.com/Government/o/PBN/OurServices/Application/EIR/index.htmhttp://www2.oaklandnet.com/Government/o/PBN/OurServices/Application/EIR/index.htm
- City of Oakland, Housing Element Update 2007-2014, Draft Environmental Impact Report (ER08-009), August 2010. http://www2.oaklandnet.com/Government/o/PBN/OurServices/Application/EIR/index.htm
- City of Oakland, Housing Element Update 2007-2014, Final Environmental Impact Report (State Clearinghouse Number: 2009092065), November 2010. http://www2.oaklandnet.com/oakca/groups/ceda/documents/report/oak023141.pdf
- City of Oakland, Central Estuary Implementation Guide, Draft Supplemental Environmental Impact Report (ER11-0016), November 2012.

1.5 Required Public Agency Approvals

CITY OF OAKLAND

The Lake Merritt Station Area Plan, with accompanying Design Guidelines, is intended to be adopted concurrently with amendments to the City's General Plan and the Oakland Planning Code, which would provide the implementing regulatory framework that would guide future land use and development decisions in the Station Area. This Plan was written to be consistent with, and serve as an extension of, the Oakland General Plan, by providing both policy and regulatory direction. The Plan would work in conjunction with the Oakland Planning Code and other applicable regulations to govern new development in the Plan Area.

Amendments to the General Plan and to the City of Oakland Planning Code ("Planning Code"), are included as a part of, and would be adopted concurrently with, the Station Area Plan. Upon adoption, the objectives and policies contained within the Plan would supersede goals and policies in the General Plan with respect to the Plan Area. In situations where policies or standards relating to a particular subject are not provided in the Station Area Plan, the existing policies and standards of the City's General Plan and Planning Code would continue to apply. The amendments would be made to both the General Plan and Planning Code to ensure that broad City policy and specific development standards are tailored to be consistent with the Plan. Projects would be evaluated for consistency with the intent of Plan policies and for conformance with development regulations and design guidelines.

This EIR is intended to provide the information and environmental analysis necessary to assist the City in considering all the approvals and actions necessary to adopt and implement the Station Area Plan. To summarize previous discussions in this chapter, the following actions are required by the City:

- **Certification of the EIR.** Certify the Lake Merritt Station Area Plan EIR and make environmental findings pursuant to CEQA.
- **Adoption of the Station Area Plan.** Adoption of the Station Area Plan, including the design guidelines.
- **Amendments to General Plan.** Amend General Plan text and maps to incorporate the Station Area Plan.
- **Amendments to the City of Oakland Planning Code.** Amend Planning Code text and map to incorporate the Station Area Plan.

The City intends to use the streamlining/tiering provisions of CEQA to the maximum feasible extent, so that future environmental review of specific projects is expeditiously undertaken without the need for repetition and redundancy, as provided in CEQA Guidelines Section15152 and elsewhere.

OTHER AGENCIES

Some development under the Station Area Plan may require review and approval by other public and quasi-public agencies and jurisdictions that have purview over specific actions. These agencies may also consider this EIR in their reviews and decision-making processes. Other agencies and their jurisdictional permits and approvals may include but are not limited to the following:

San Francisco Bay Regional Water Quality Control Board (RWQCB). Acceptance of a Notice of Intent (NOI) to obtain coverage under the General Construction Activity Storm Water Permit (General Construction Permit), and Notice of Termination after construction is complete. Granting of required clearances to confirm that all applicable standards, regulations, and conditions for all previous contamination at the site have been met.

Bay Area Air Quality Management District (BAAQMD). Compliance with BAAQMD Regulation 2, Rule 1 (General Requirements) for all portable construction equipment subject to that rule. Compliance with BAAQMD Regulation 11, Rule 2, which regulates the demolition and renovation of buildings and structures which may contain asbestos, and the milling and manufacturing of specific materials which are known to contain asbestos.

East Bay Municipal Utility District (EBMUD). Approval of new service requests and new water meter installations. The project meets the threshold for a required assessment of water supply, pursuant to Sections 10910-10915 (SB-610) of the California Water Code. EBMUD completed this assessment in January 2013, finding that the water demands for the Lake Merritt Station Area Plan are accounted for in EBMUD's 2010 Urban Water Management Plan.

Alameda County Flood Control and Water Conservation District (ACFCWD). Enforcement of the Stormwater Quality Management Plan and Best Management Practices (BMPs) included in Alameda Countywide Clean Water Program's Stormwater Pollution Prevention Permit (SWPPP). This would be done in conjunction with the City of Oakland, one of 18 co-permittees.

California Department of Toxic Substances Control (DTSC). Ensure compliance with State regulations for the generation, transportation, treatment, storage, and disposal of hazardous waste.

California Department of Transportation (Caltrans). Review and approval of plans, specifications, and estimates (including any equipment or facility upgrades) for modifications to intersections under the jurisdiction of Caltrans.

Bay Conservation and Development Commission (BCDC). Review and approval of plans/issuance of permits for projects within 100 feet of the shoreline of San Francisco Bay (including the Oakland Estuary), including shoreline development, filling, or dredging.

US Army Corps of Engineers (Corps). Review and approval of plans for the placement of dredge or fill material in any jurisdictional waters of the United States (see Section 4.5.3).

1.6 Organization of this EIR

EXECUTIVE SUMMARY

This EIR begins with an executive summary of the environmental analysis, which includes a review of the potentially significant adverse regional environmental impacts of the proposed Plan and the measures recommended to mitigate those impacts. The executive summary also indicates whether or not those measures mitigate the significant impacts to a less than significant level. Finally, the executive summary describes the alternatives and their merits as compared to the proposed Plan, and identifies the environmentally superior alternative among them.

CHAPTER 1 INTRODUCTION

Chapter 1 (this chapter) describes the purpose of this EIR, its approach and scope, other plans and studies of relevance to the EIR, and its organization. It also includes a list of topics covered.

CHAPTER 2 PROJECT DESCRIPTION

Chapter 2 introduces the purpose and objectives of the proposed Plan and summarizes the Plan's key elements. This includes a description of the existing project setting, an overview of the proposed Plan's major strategies and policies, and an outline of the projected population and development under the proposed Plan. The Plan components outlined in the project description provide the basis for the environmental analysis in Chapter 3.

CHAPTER 3 SETTINGS, IMPACTS, AND MITIGATION MEASURES

Chapter 3 describes the existing physical and regulatory settings for each of the environmental issue areas analyzed in the EIR, the potential impacts of the proposed Plan on these environmental issue areas, the proposed Plan policies that help to reduce those impacts, and, if necessary, measures to mitigate potential impacts identified. Each issue area is analyzed in a separate numbered subsection of the chapter. Each subsection is organized as follows:

- Environmental Setting
  - Physical Setting
  - Regulatory Setting
- Impact Analysis
  - Thresholds of Significance
  - Methodology and Assumptions
  - Summary of Impacts
  - Impacts
    - Proposed Plan policies that reduce impacts
    - Mitigation measures (as applicable)

CHAPTER 4 ANALYSIS OF ALTERNATIVES

Chapter 4 includes background information on the selection of alternatives, a description of alternatives to the proposed Plan, and an assessment of their potential to achieve the objectives of the proposed Plan while reducing potentially significant adverse environmental effects. As required by CEQA, an environmentally superior alternative is identified.

CHAPTER 5 CEQA REQUIRED CONCLUSIONS

Chapter 5 provides the assessment of impacts of the proposed Plan in several subjects areas required by CEQA, including:

- Growth-inducing impacts;

- Significant and unavoidable impacts;
- Significant irreversible environmental changes; and
- Impacts found to be not significant.

CHAPTER 6 BIBLIOGRAPHY

Chapter 6 consists of the bibliography.

CHAPTER 7 REPORT AUTHORS

Chapter 7 lists the report authors.

APPENDICES

- ***Appendix A*** includes the Notice of Preparation (NOP) and comments received on the NOP;
- ***Appendix B*** provides the development potential of the proposed Plan;
- ***Appendix C*** provides the City of Oakland's List of Active Major Development Projects;
- ***Appendix D*** provides the full traffic impact analysis report;
- ***Appendix E*** provides documentation of consultation with the Northwest Information Center regarding cultural resources in the Planning Area;
- ***Appendix F*** provides documentation of the CalEEMod Emissions Greenhouse Gas Estimate; and
- ***Appendix G*** East Bay Municipal Utility District Water Supply Assessment.

2 Project Description

The project analyzed in this EIR is the proposed Lake Merritt Station Area Plan. The proposed Plan encompasses the neighborhood around the Lake Merritt BART Station, including Chinatown, Laney College, the Oakland Museum of California, and the Alameda County Courthouse and offices. The proposed Plan seeks to connect these and other assets in a livable, vibrant, pedestrian-oriented, safe, healthy, and economically diverse neighborhood. The proposed Plan has been developed through a partnership between the City of Oakland, San Francisco Bay Area Rapid Transit (BART), the Peralta Community College District, and a wide range of community members. Over the next 25 years, the proposed Plan would accommodate 4,900 new housing units, 4,100 new jobs, 404,000 square feet of additional retail, and 1,230,000 square feet of office uses. It is currently anticipated that the proposed Plan will be adopted concurrently with General Plan and Planning Code amendments, Design Guidelines for the Lake Merritt Station Area Plan, and any identified revisions to the City's Standard Conditions of Approval (SCA).

This chapter provides regional background information and a comprehensive overview of the proposed Plan. This includes a description of the existing regional and local setting, the vision and goals of the proposed Plan, the proposed land use diagram, key themes and strategies of the proposed Plan, and descriptions of allowable development under the proposed Plan and Plan implementation. Plan implementation includes proposed General Plan and zoning amendments that will occur concurrently with Plan adoption. The key Plan components outlined in this Project Description provide the basis for the environmental analysis in Chapter 3.

2.1 Regional Location and Planning Boundaries

The Planning Area encompasses 315 acres in the heart of Oakland, a major urban center within the San Francisco Bay Area. Adjacent neighborhoods and destinations include Downtown Oakland, Lake Merritt, the Jack London District, Old Oakland, and Uptown. The Planning Area's location within this context is shown in **Figure 2.1-1**, and a more detailed map of the Planning Area itself is provided in **Figure 2.1-2**. The Planning Area includes a diverse range of urban land uses and building types, and features important community resources. Key features include the Lake Merritt BART Station, Oakland Chinatown, Laney College, the Oakland Museum of California, Oakland Public Library, Lincoln Square Park and Recreation Center, Lincoln Elementary School, the Kaiser Auditorium, Lake Merritt and Lake Merritt Channel, and the park land along both.

The Planning Area is home to approximately 6,100 people and 17,800 jobs; there are about 12,000 residents and 30,000 jobs in the larger half-mile radius around the Lake Merritt BART Station. It is one of the oldest areas of Oakland and includes seven designated historic districts (either portions or complete

districts). Existing land use within the larger half-mile radius that includes the Planning Area is summarized below.

- **Public and institutional uses** cover 92 acres and make up 32 percent of the half-mile radius. These uses are largely consolidated along the Estuary Channel and along 13th Street.
- **Residential uses** cover 51 acres (18 percent) of the area within the half-mile radius, and are concentrated in the Eastlake neighborhood, Chinatown, the Lakeside Apartment District to the north, and the Jack London District to the south. Existing residential density in Chinatown is generally lowest in the area bound by Harrison, 11th, Fallon, and 6th Streets, with 20-60 units per acre. In some parts of Chinatown there are higher densities: between 61 and 100 units per acre, with a few areas achieving 100 and 200 units per acre. Historic single family housing—most of which has been converted into multi-family housing—is located in the eight blocks bounded by 6th, 8th, Fallon, and Alice Streets.
- **Mixed-use** development covers 19 acres (about 7 percent of the area within the half-mile radius). The mixed use developments are primarily of three characters: retail on the ground floor with residential units above, retail on the ground floor with office space above, or office on the ground floor with residential units above. The majority of mixed-use developments (nearly 90 percent) include retail on the ground floor. Most retail and office uses in the Planning Area are located in mixed-use buildings.
- **Parks and open space** comprise about 35 acres within the half-mile radius. New park land at the southern edge of Lake Merritt will add four acres, resulting in a total of 39 acres in the half-mile radius. The Planning Area includes three locally serving urban parks and three regional parks. The regional park land surrounding Lake Merritt is heavily used and has recently been renovated with Measure DD funds. Lake Merritt Channel Park is also regionally serving, and its connection to Lake Merritt will be improved when Measure DD projects are completed. About 15 acres of park land are owned by the Peralta Community College District. There is also regional open space along the waterfront at Estuary Park.
- **Light industrial and warehouse uses** cover 24 acres, or about 9 percent of the half-mile radius, and are primarily located south of I-880, outside of the Planning Area.

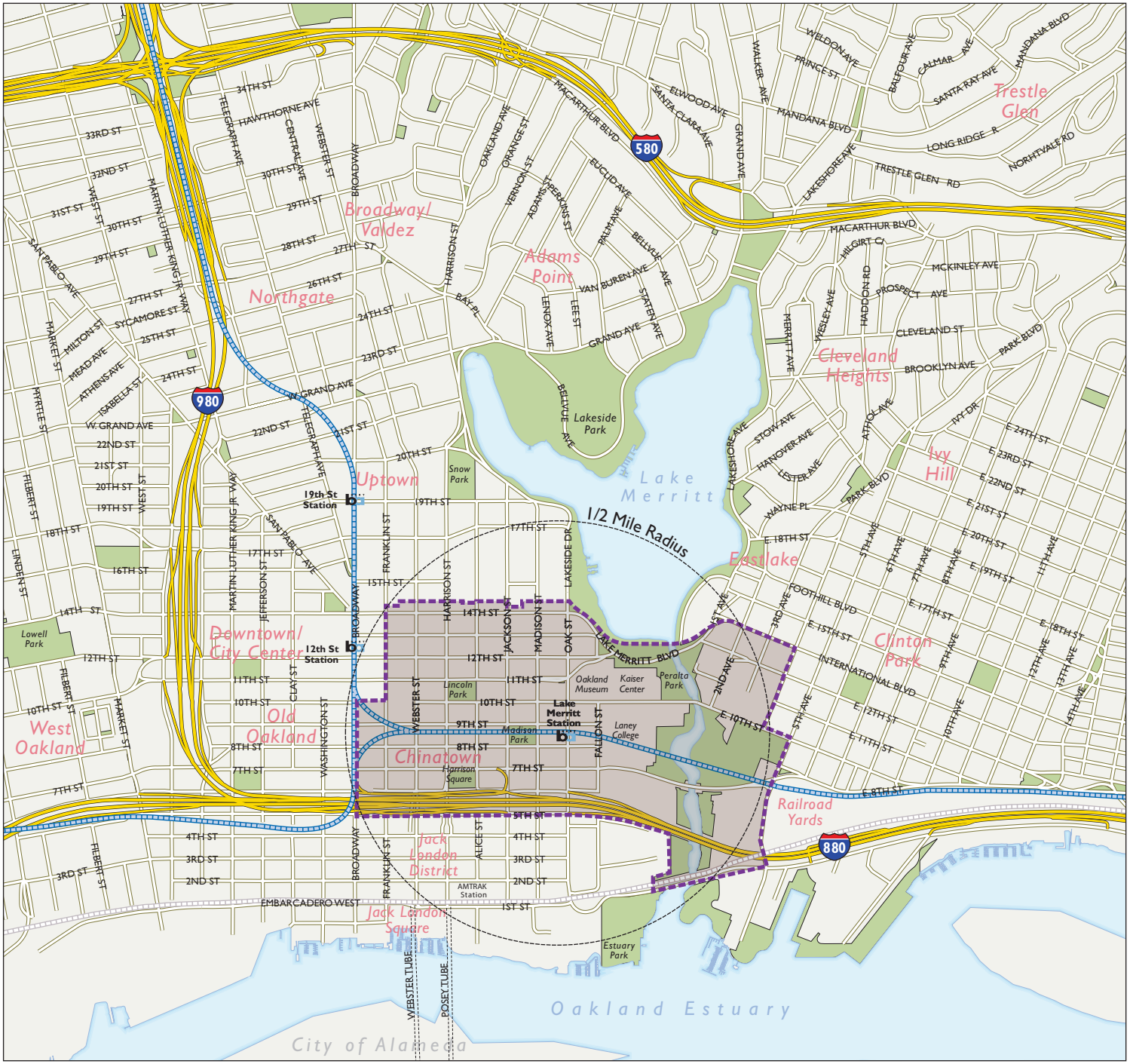

Figure 2.1-1
Local Context of the Planning Area

- BART Station
- BART
- City Park
- Planning Area
- Railroad (Amtrak & Freight)

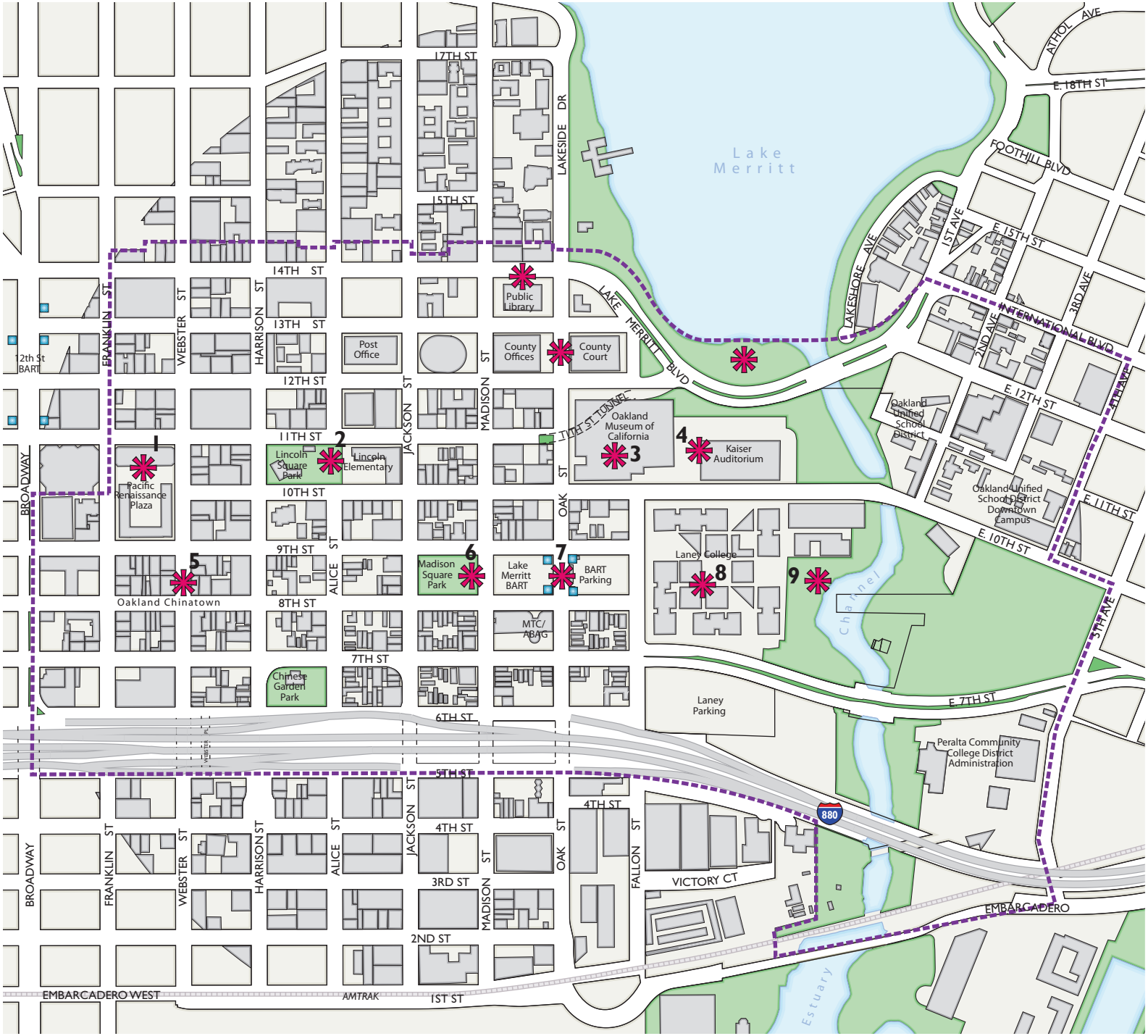

Figure 2.1-2
Planning Boundary

Planning Area

Key Assets

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2.2 Purpose and Objectives of the Proposed Plan

The purpose and objectives of the proposed Plan reflect the initial community engagement and visioning process, which included four community meetings in 2008 and 2009 and a survey which garnered 1,100 responses in March and April 2009, and which resulted in the identification of nine Guiding Principles. A series of focus groups/neighborhood teas were held to assess the goals and concerns of local residents who typically do not attend large public meetings in a more intimate and informal setting, and a total of 50 stakeholders were interviewed individually or in groups. A Community Stakeholder Group (CSG), comprising about 50 members representing a broad range of interests within the Planning Area, has met 13 times to date, providing feedback on documents throughout the planning process. A Technical Advisory Committee made up of City staff and representatives from other agencies with technical knowledge of the Planning Area has been consulted extensively.

The vision and goal statements, based on the nine guiding principles and refined through CSG guidance, are as follows:

- Create a financially feasible, implementable plan that is the result of an authentic community engagement process and is inclusionary of all community voices.
- Create a more active, vibrant, and safe district to serve and attract residents, businesses, students, and visitors.
- Provide for community development that is equitable, sustainable, and healthy.
- Increase the use of non-automobile modes of transportation.
- Increase the housing supply to accommodate a diverse community, especially affordable housing and housing around the Lake Merritt BART Station.
- Increase jobs and improve access to jobs along the transit corridor.
- Provide services and retail options in the Station Area.
- Identify additional recreation and open space opportunities.
- Celebrate and enhance the heritage of Chinatown as a cultural asset and a regional community destination.
- Maximize the land use and development opportunities created through preservation and restoration of historic buildings.
- Establish the Lake Merritt Station Area as a model with innovations in community development, transportation; housing; jobs; businesses; environmental, social, and economic sustainability; and greenhouse gas reductions.

The proposed Plan establishes more specific goals in 11 categories, including community engagement; public safety; business; jobs; housing; community resources and open space; transportation; health; redevelopment of key publicly-owned blocks; and green and sustainable urban design. These goals provide focus and guidance for more specific policies in each chapter of the proposed Plan. Taken together, the vision statements and goals establish an overall direction for the Planning Area that is reflected in the proposed Plan's draft area character and height maps, policies, and implementation measures.

Broadly, the Station Area Plan aims to foster new, high-quality Transit-Oriented Development (TOD) that supports and helps to connect existing neighborhood assets and provides enhanced neighborhood amenities.

2.3 Proposed Plan

This section provides a brief overview of key plan components which include direction for land use, height and massing of new development, circulation, open space, community facilities, and infrastructure and utilities improvements. These issues are covered in the proposed Station Area Plan's Chapter 4: Land Use, Chapter 5: Open Space, Chapter 6: Circulation, Chapter 7: Community Resources, and Chapter 9: Infrastructure and Utilities. Proposed Plan strategies, policies, and actions are considered throughout this EIR both in terms of their environmental impacts and, where relevant, of how proposed Plan policies may reduce or avoid potential impacts. However, it is noted that where implementation is not certain, proposed Plan policies and improvements cannot be relied upon to mitigate environmental impacts. For example, many recommended improvements require future actions before they can be implemented, such as the performance of a nexus study (such as for open space requirements) or technical or feasibility studies (such as for conversion of streets from one-way to two-way), or the creation of a reliable funding source (which may require a variety of future actions such as nexus studies or voter approval). This is noted where relevant throughout the impact assessments in Chapter 3.

PLAN ORGANIZATION AND POLICIES

The Lake Merritt Station Area Plan is organized into 10 chapters, as follows:

1. Introduction
2. Existing Conditions
3. Vision
4. Land Use
5. Open Space
6. Streetscape and Circulation
7. Community Resources
8. Economic Development
9. Infrastructure and Utilities
10. Implementation

Each chapter includes a discussion of relevant issues, including existing conditions, needs identified during the planning process, and opportunities to achieve Plan goals. Chapters 4 through 9 represent the body of the proposed Plan, and each of these chapters concludes with a set of policies. These policies are to be used by the City of Oakland and other stakeholders to guide regulatory changes, public investments, partnerships, and other actions over the course of the planning period. All of these policies are incorporated by reference into this Project Description. Chapter 10: Implementation identifies all

regulatory changes and improvement actions called for by the proposed Plan; details estimated infrastructure improvement costs; and considers potential funding sources.

LAND USE

This section describes the proposed Plan's direction regarding the land use character envisioned for each part of the Planning Area Desired land use character will ultimately be achieved through a range of mechanisms, including zoning and General Plan amendments, and design guidelines, which are described in more detail in Section 2.4: Concurrent Plan Components.

Area Character

- The proposed Plan includes land use character zones or districts, which promote a diversity of uses within the Planning Area, seek to promote economic development, and ensure an active urban neighborhood and vibrant pedestrian-oriented corridors. These districts consist of high-density housing, office and retail uses, institutional uses, and new public spaces. The proposed land use character districts are shown on the Draft Area Character Map (**Figure 2.3-1**), and are described below. **Pedestrian District.** An area of mixed-use, pedestrian-oriented continuous storefront uses with a mix of retail, restaurants, businesses, cultural uses, and social services at the ground level. Upper story spaces are intended to be available for a wide range of residential and commercial activities.

- **Pedestrian Transition District.** An area that is currently mostly housing or commercial uses, but allows for the gradual transition to a Pedestrian Area by promoting ground floor storefronts and other active uses in new buildings.
- **Flex District.** An area allowing the maximum flexibility in uses, and permitting a variety of commercial and residential and light industrial uses.
- **Commercial District.** An area allowing a wide range of ground floor office and other commercial activities, with primarily office uses on upper floors, though high-density housing is permitted.
- **Institutional District.** An area appropriate for educational facilities, cultural uses, health services, government agencies, and other uses of a similar character, such as Laney College, Peralta College District, Alameda County, and the Oakland Museum of California.
- **Open Space District.** An area intended to meet the active and passive recreational needs of Oakland residents. This open space designation allows uses and facilities that enhance these local and regional assets, such as Lake Merritt and various local parks.
- **Urban Residential District.** An area appropriate for multi-unit, mid-rise, or high-rise residential structures in locations with good access to transportation and other services. This residentially focused area also allows a variety of ground floor uses that are compatible with a residential area.

Active Ground Floor Uses

The proposed Plan also seeks to promote active ground floor uses – those that attract walk-in traffic, such as retail stores, restaurants, galleries, health clinics, and personal services. These types of uses add vibrancy to the street by increasing pedestrian traffic, which results in safer streets and more customers for local businesses. Land use regulations, adopted as part of the zoning, could require or encourage

ground floor uses along corridors identified in the proposed Plan. Design guidelines will ensure that new buildings, with a variety of ground-floor uses, will enhance the public realm and have interesting facades that engage pedestrians. The proposed Plan's strategy for active ground floor uses builds on and complements the existing success of the Chinatown Commercial Center, expanding Chinatown businesses, diversifying retail options as an expansion of Oakland's Central Business District, and connecting the cultural and institutional assets that differentiate the Planning Area from the surrounding city.

Height and Massing Concepts

Height and massing concepts in the proposed Plan would be implemented through zoning amendments and design guidelines (see Section 2.4: Concurrent Plan Components). Key themes related to height and massing proposals include enhancing community character, maintaining compatibility with historic and natural resources, and accommodating high-density Transit-Oriented Development. Massing concepts are meant to respond historic buildings and patterns of lot size and scale; be sensitive to existing buildings, and existing and new parks; and incorporate transitions between developments of differing scales. The proposed Station Area Plan recommends two regulate height and massing levels:

- **Base heights** should complement the existing context, and ensure that a consistent character is maintained from the pedestrian perspective. These heights should be consistent with breaking points in cost of construction for different construction types.
- **Total tower height** would be an additional amount of height above the base height and would be the maximum height allowed. In order to ensure slender towers, tower portions of a building would be subject to massing regulations, such as setbacks, percent lot coverage above the base, and tower length limits.

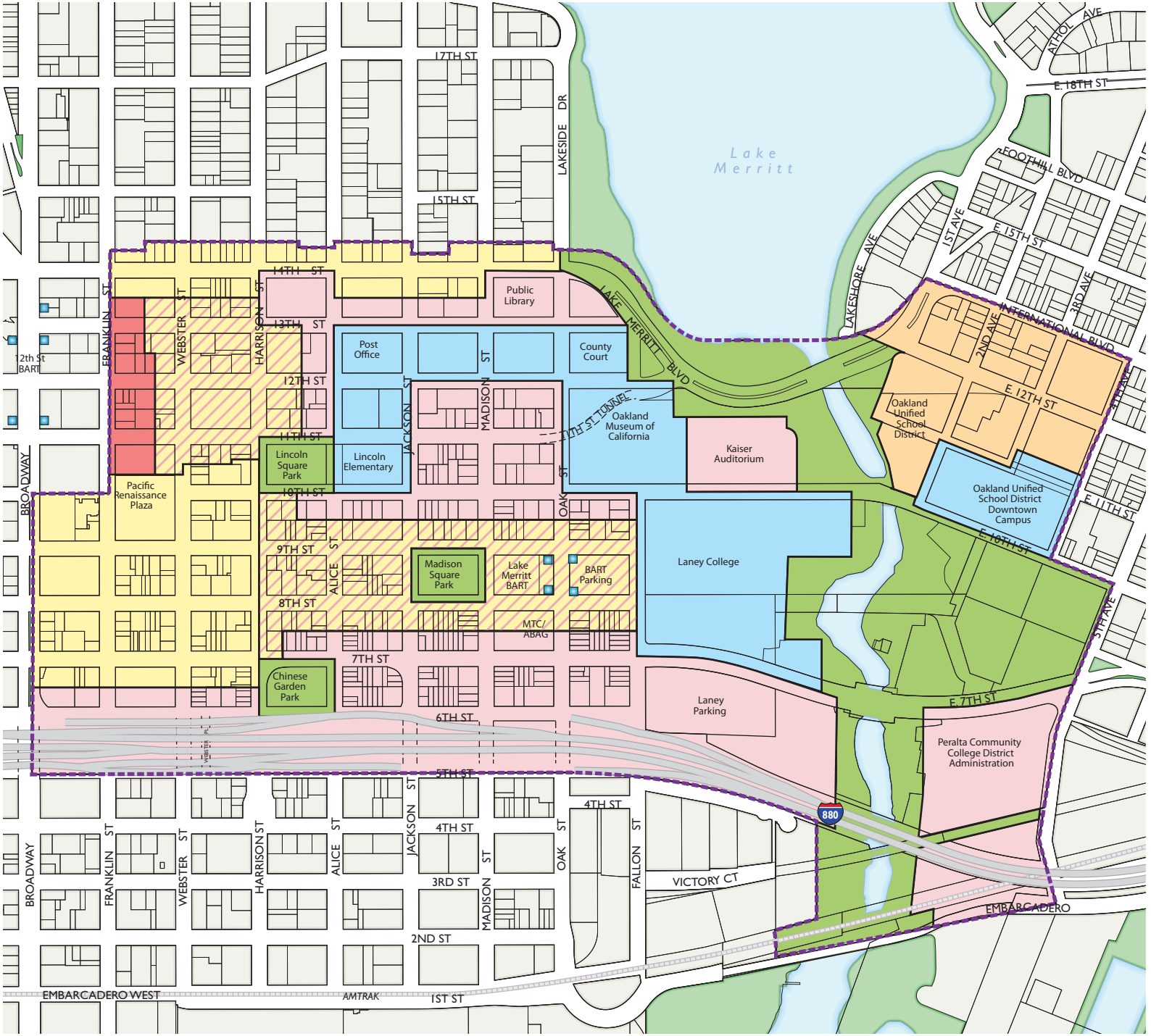

Figure 2.3-1
Draft Area Character

- Pedestrian District
- Pedestrian Transition District
- Flex District
- Commercial District
- Institutional District
- Open Space District
- Urban Residential District
- Open Space outside the Planning Area
- Planning Area

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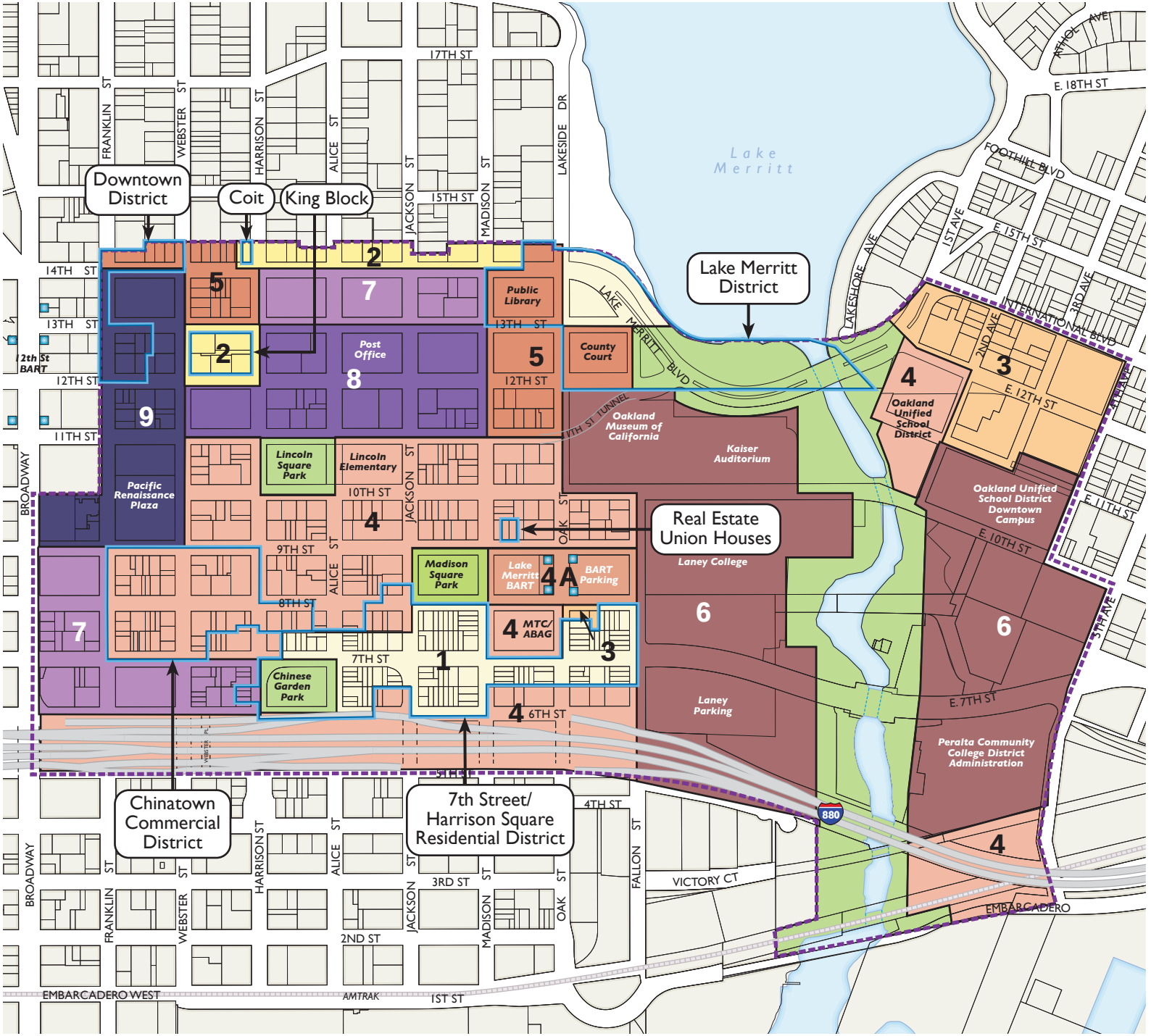

Figure 2.3-2
Draft Proposed Height Areas

- 1 — 45 Ft Total
- 2 — 85 Ft Total
- 3 — 45 Ft Base 175 Ft Total
- 4 — 45 Ft Base 275 Ft Total
- 4A* — 55 Ft Base 400 Ft Total
- 5 — 85 Ft Base 175 Ft Total
- 6 — 275 Ft Total
- 7 — 85 Ft Base 275 Ft Total
- 8* — 85 Ft Base 400 Ft Total
- 9* — 125 Ft Base No Height Limit
- Open Space
- Historic District of Primary Importance
- Planning Area

* In order to acheive heights above 275 ft, development must provide community benefits.

This map represents maximum total heights; the final height areas adopted in zoning may be different, and supercede height areas on this map.

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Height Areas

The Draft Height Map is shown in **Figure 2.3-2**. Proposed base heights, which are important for establishing the way people experience the urban environment, vary depending on the proximity to downtown and the existing context. Higher 85- and 120-foot base heights are proposed for areas closer to downtown, along Broadway, and along the southern edge of 14th Street. Height Area 2, along the north side of 14th Street, provides an 85-foot base height with no additional height allowed for towers, reinforcing the existing pattern. The lower 45-foot base height would be located in the remaining area. Height Area 6, which encompasses educational and institutional uses, is the only area that would allow towers and does not have a base height limitation.

The Plan's proposed Height Areas are conceptual. They will be implemented through specific revisions to zoning. Current zoning proposals are described in more detail in Section 2.4 Concurrent Plan Components.

Heights shown in Figure 2.3-2 (and described in Section 2.4) represent the maximum heights allowed in specific geographic areas of the Station Area. However, any development above 275 feet would be required to provide community benefits in order to achieve those maximum heights. Future Plan Area development would also be subject to the Lake Merritt Station Area Plan Development Potential which consists of the reasonably foreseeable maximum development assumed for the EIR. Therefore, as discussed in greater detail below in Section 2.5: Reasonably Foreseeable Maximum Development, and in Section 2.6: Adherence to Allowable Development Program, individual development projects would be required to undergo monitoring by the City to ensure that the overall development program is not exceeded.

CIRCULATION IMPROVEMENT STRATEGIES

The proposed Plan circulation improvement strategies focus on establishing interconnected and safe travel for people walking, riding bicycles, taking transit, or driving. Streets are identified for improvements to promote non-motorized and transit access between activity hubs within and beyond the Planning Area. Important elements of this strategy include pedestrian safety and comfort, clearly marked bicycle access, and an improved transit access plan. In addition, strategies for improved connectivity under the I-880 Freeway would remove an existing barrier to access in the Planning Area. Proposed circulation improvements are described in Chapter 6 of the proposed Station Area Plan, and discussed in the EIR impacts sections where relevant.

The following concepts identify the major ideas that underlie the proposed streetscape and circulation improvements.

- Improve and Expand the Core of Chinatown.
- Connect Chinatown to the Jack London District.
- Concentrate Multimodal Access at the Lake Merritt BART Station.
- Improve Lighting, Pedestrian Crossings, and Street Trees on All Streets.
- Connect Lake Merritt to the Rest of the Planning Area.
- Add Unique Wayfinding Signage.

- Reflect local character and the neighborhood.
- Make the area a destination.

The overall circulation improvement strategy is split into two phases. Phase I, shown in **Figure 2.3-3,** includes short-term actions that are studied in this EIR. Phase II includes long-term actions that will be subject to future technical and/or feasibility studies, and are not evaluated in this EIR.

Phase I Improvements (Studied in this EIR)

Improvements that may be pursued without additional feasibility or technical studies beyond the studies associated with the Plans and this EIR, are considered Phase I improvements. These improvements are studied within this EIR. Phase I improvements include:

- Streetscape improvements such as pedestrian-oriented lighting, corner bulbouts, enhanced crosswalks and curb ramps, and street trees, where these features do not preempt two-way conversion.
- Re-striping on 8th, 9th, Oak, and Madison Streets and one block of 10th Street to reduce travel lanes from four lanes to three lanes, with the extra space allocated to bike lanes, consistent with the City of Oakland's Bicycle Master Plan.
- Special lighting along 14th Street to highlight its connecting role between the Civic Center and Lake Merritt.
- Planters, rain gardens, and other "green" treatments along 10th Street to highlight its role in linking Chinatown to the Lake Merritt Channel.
- Improved pedestrian crossings and lighting along 7th Street east of Fallon Street to make it safer and easier to cross.
- Special paving and pedestrian amenities on two blocks of Fallon Street and one block of Alice Street to allow for easy, temporary closure for special events. Treatments may include extra-wide sidewalks and distinctive pavement.
- Enhanced I-880 Freeway undercrossings. Concepts include pedestrian-oriented lighting, enhanced crosswalks, and the potential addition of active uses such as mobile food or retail.

Phase II Improvements (Future Actions)

Improvements that require future actions, such as technical or feasibility studies, are identified as Phase II. Phase II improvements include converting one-way streets to two-way, which would require technical and/or feasibility studies. Note that the bridge/path over I-880 and the railroad tracks at the south edge of the Lake Merritt channel is included on **Figure 2.3-3,** but may require additional feasibility or technical study before completion. In addition, some intersection improvements may require additional feasibility or technical study to determine the most desirable approach (i.e. flashing pedestrian sign versus full intersection signalization). These and other Phase II circulation improvements are evaluated only to a level that is feasible in light of available information in this EIR. See Section 2.7 for more information on implementation of the proposed Plan.

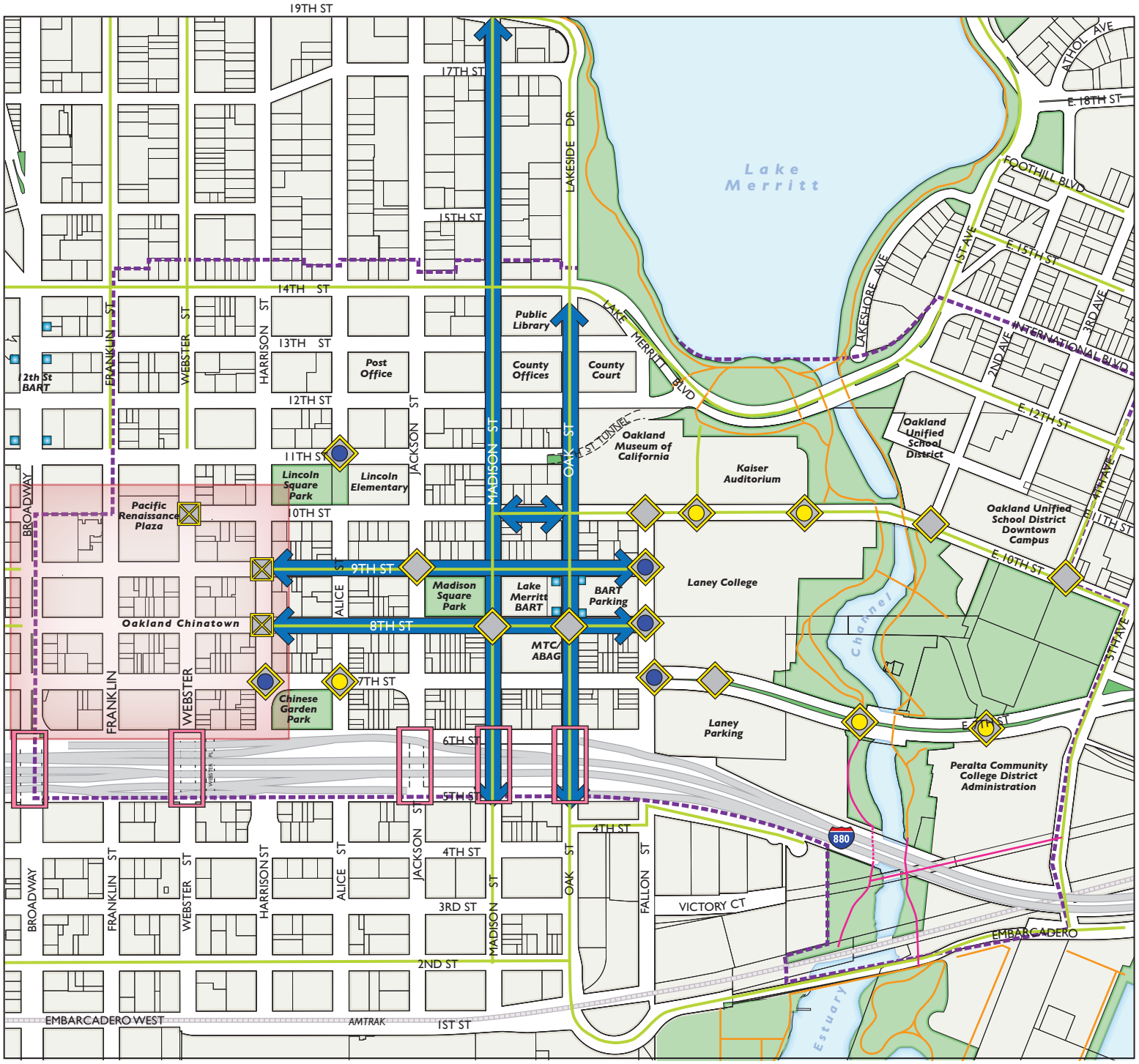

Figure 2.3-3
Phase I
Circulation Improvement

Planned Lane Reduction/ Bike Lanes

Existing or Planned On-Street Bicycle Connection

Priority Pedestrian Crossing Improvements

Bulbouts

Bulbouts, Flashing Pedestrian Signs

Bulbouts or Sidewalk Widening

Phase I Bulbouts, Phase II Pedestrian Scrambles

Improved Freeway Undercrossing

Existing and Under Construction Paths

Potential Additional Paths

Chinatown Commercial Core Area

BART Station Entrance

Planning Area

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OPEN SPACE

As new development takes place and the residential population increases, improved access, maintenance, and usability of existing parks, as well as development of new open spaces, will be essential to ensure a high quality of life in this increasingly dense urban setting. The proposed Station Area Plan aims to: enhance existing open spaces, partner with the Oakland Unified School District and other schools, and expand the amount of new park and open space acreage and recreation facilities. Some new open space will be created along Lake Merritt Channel. Open space improvements are discussed in Chapter 5 of the proposed Station Area Plan, and considered in this EIR.

COMMUNITY RESOURCES

Community resources, including cultural and historic resources, schools, and other community facilities, are key components of a vibrant and complete neighborhood. The Planning Area includes a diverse range of community resources, including (among others) the Chinatown neighborhood, Oakland Asian Cultural Center, Oakland Museum of California, Lincoln Elementary School, and Laney College. The Lake Merritt Station Area Plan builds upon the existing community resources in the Planning Area, while highlighting its historical, cultural, and educational assets. Community resources are covered in Chapter 7 of the proposed Station Area Plan; the proposed Plan's approach to historic resources in particular is evaluated in this EIR.

ECONOMIC DEVELOPMENT

The proposed Plan includes an economic development strategy to foster investment and growth in the Planning Area and provide support for existing and future businesses in the Planning Area. The economic development strategy works in tandem with new building construction and improvements to streets, parks, and safety to improve quality of life to the benefit of existing and new businesses and residents.

INFRASTRUCTURE AND UTILITIES

The City of Oakland and regional districts provide a variety of infrastructure services including potable water, sanitary sewer (wastewater), recycled water, storm drainage, electricity and natural gas service, and solid waste disposal services to meet the demand of residents and businesses. The Planning Area, while completely serviced with existing utilities, will require upgrades and relocations of certain infrastructure elements. In particular, sewer line improvements are expected to be required in some areas. The proposed Plan features policies for new streetscape design that emphasizes low-impact stormwater run-off strategies, and reinforces City standards ensuring that new development incorporates stormwater best practices. Infrastructure and utilities are covered in Chapter 9 of the proposed Station Area Plan, and are considered in this EIR.

2.4 Concurrent Plan Components

This EIR is intended to provide the information and environmental analysis necessary to assist the City in considering all the approvals and actions necessary to adopt and implement the Lake Merritt Station Area Plan. The Station Area Plan is intended to be adopted concurrently with amendments to the General Plan map and text, amendments to the City of Oakland Planning Code map and text (zoning regulations), and the Lake Merritt Station Area Plan Design Guidelines. These concurrent Plan components would provide

the regulatory framework to guide future land use and development decisions in Station Area, and are described further in the sections below. It should be noted that the Plan, the Design Guidelines and the proposals for these concurrent plan components have not yet been approved or adopted by the City's various advisory boards and elected bodies, and are, therefore, subject to change.

GENERAL PLAN AMENDMENTS

The Lake Merritt Station Area Plan recommends that the Oakland General Plan be amended to reflect new policy direction. The proposed General Plan amendments are expected to include text and mapping changes.

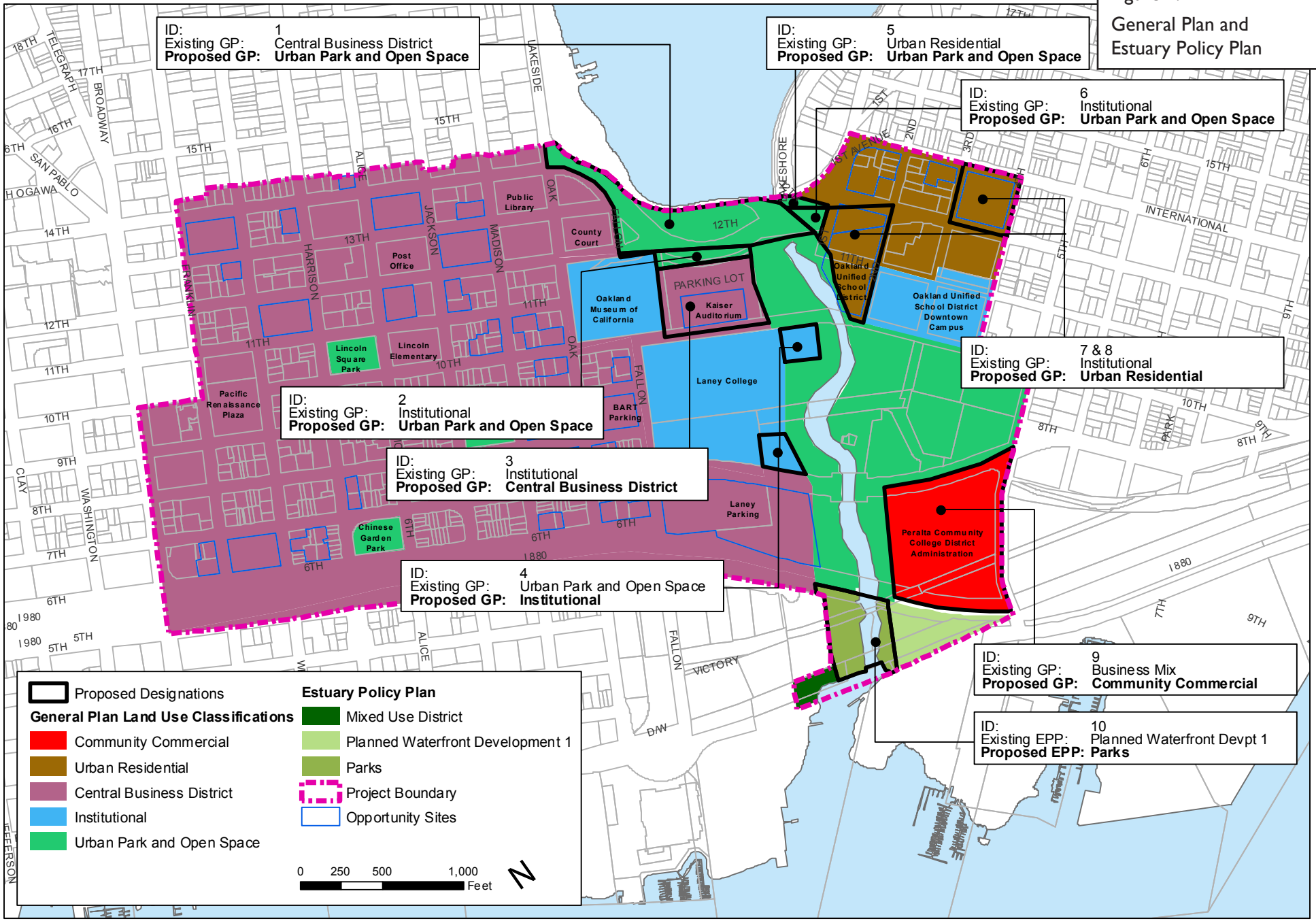
The proposed General Plan mapping amendments are shown in Figure 2.4-1. Various areas would be reclassified with new General Plan land use classifications to implement the vision of the Station Area Plan, as described below:

- ***Lake Merritt Open Space***. The proposed General Plan amendment changes the area along Lake Merritt where Measure DD improvements are underway from Central Business District, Institutional, and Urban Residential to Urban Park and Open Space.
- ***Kaiser Auditorium.*** The proposed General Plan amendment changes the Kaiser Auditorium from Institutional to Central Business District.
- ***Laney College***. The proposed General Plan amendment slightly expands the institutional area, replacing some Urban Park and Open Space area.
- ***Eastlake***. The proposed General Plan amendment changes areas in Eastlake—including State and County office sites, along with the newly created parcel from excess right of way—from Institutional to Urban Residential.
- ***Peralta Community College District Administration.*** The proposed General Plan amendment changes the Peralta Community College District Administration parcels to Community Commercial.
- ***Lake Merritt Channel.*** The proposed General Plan amendment changes the southern edges of the Lake Merritt Channel from Planned Waterfront Development and Mixed Use District in the Estuary Policy Plan to Parks.

General Plan text amendments are also proposed for the Eastlake area, where the Plan envisions development intensities that are somewhat higher than prescribed by the proposed General Plan land use classifications. Rather than creating a new land use classification that includes higher intensities, the proposal is to amend text in the General Plan to specify that unique densities and Floor Area Rations (FARs) apply in the Planning Area.

Figure 2.4-1

General Plan and Estuary Policy Plan



City of Oakland, Department of Planning and Building
DRAFT - August 2013

CITY OF OAKLAND

LAKE MERRITT BART STATION AREA PLAN

Proposed General Plan and Estuary Policy Plan Amendments

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PLANNING CODE AMENDMENTS

While the General Plan establishes a policy and regulatory framework, the Planning Code prescribes standards, rules, and procedures for development. The Planning Code translates plan policies into specific land use regulations, development standards, and performance criteria that govern development on individual properties. The proposed Plan provides direction for new and modified land use districts, use and development standards, and density and intensity limits. Topic areas in the proposed Plan that will be reflected in the Planning Code amendments include:

- Land Use Character;
- Active Ground Floor Uses;
- Height and massing;
- Parking Requirements; and
- Additional development requirements, including:
  - Public Open Space standards for large sites.
  - Requirements for development occurring adjacent to the I-880 Freeway.

Zoning Districts

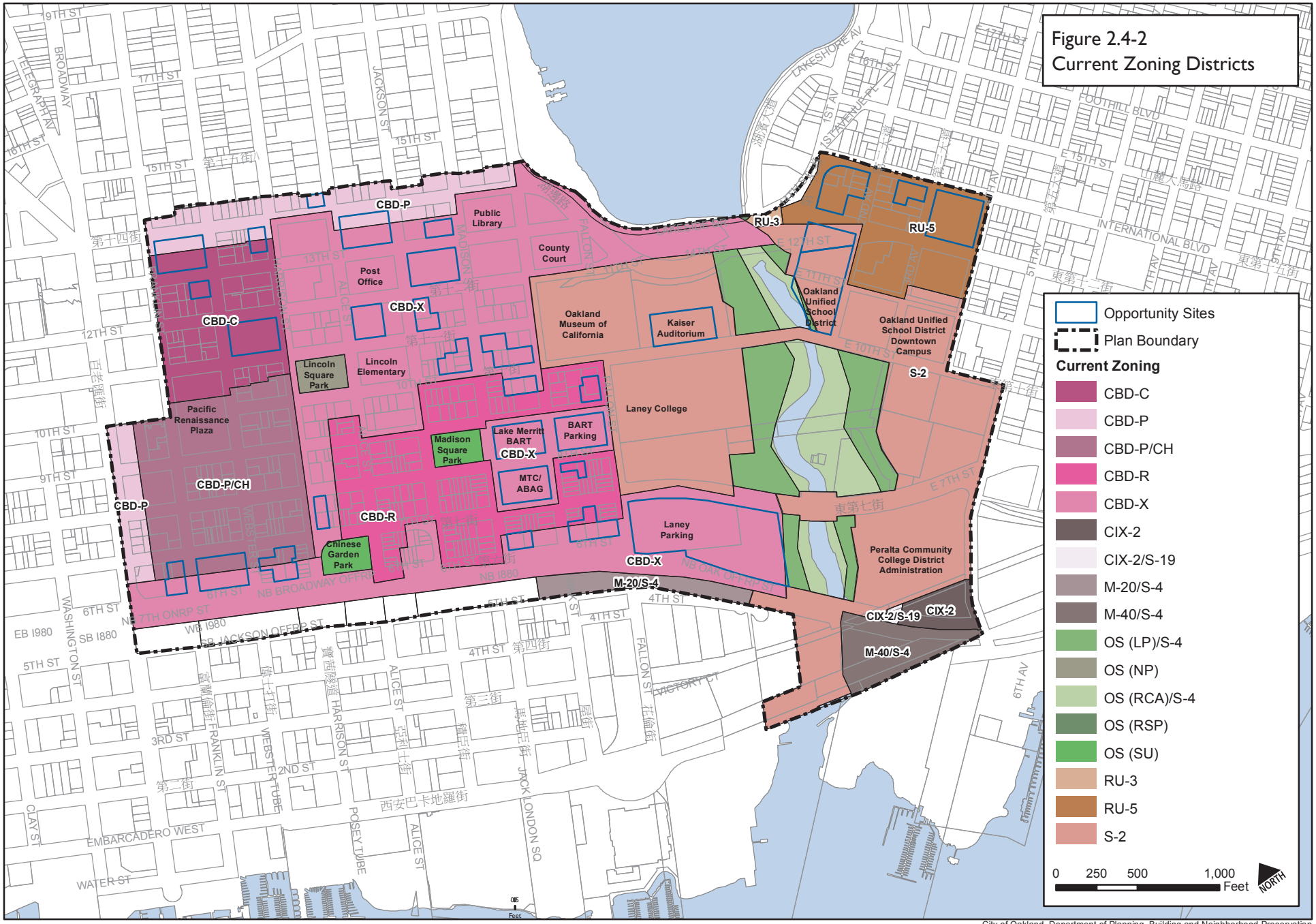
Existing zoning districts would be replaced by a new set of Lake Merritt Station Area Plan zoning districts (D-LM) that would help implement the vision of the Plan. Existing and proposed zoning districts are shown in Figures 2.4-2 and 2.4-3, respectively. Proposed zoning districts are as follows:

- **D-LM-1 Lake Merritt Station Area Plan District Urban Residential Zone.** The intent of the D-LM-1 zone is to create, maintain, and enhance areas of the Lake Merritt Station Area Plan District appropriate for high-density residential development with small-scaled compatible ground-level commercial uses.
- **D-LM-2 Lake Merritt Station Area Plan District Pedestrian Zone.** The intent of the D-LM-2 zone is to create, maintain, and enhance areas of the Lake Merritt Station Area Plan District for ground-level, pedestrian-oriented, active storefront uses. Upper story spaces are intended to be available for a wide range of office and residential activities.
- **D-LM-3 Lake Merritt Station Area Plan District General Commercial Zone.** The intent of the D-LM-3 zone is to create, maintain, and enhance areas of the Lake Merritt Station Area Plan District appropriate for a wide range of ground-floor commercial activities. Upper-story spaces are intended to be available for a wide range of residential and office or other commercial activities.
- **D-LM-4 Lake Merritt Station Area Plan District Flex Zone.** The intent of the D-LM-4 zone is to designate areas of the Lake Merritt Station Area Plan District appropriate for a wide range of upper story and ground level residential, commercial, and compatible light industrial activities.
- **D-LM-5 Lake Merritt Station Area Plan District Institutional Zone.** The intent of the DLM-I zone is to create, preserve, and enhance areas devoted primarily to major public and quasi-public facilities and auxiliary uses.

The proposal also recommends designating certain key streets as areas where new construction would be required to provide ground floor commercial use

There are two types of corridors:

- **Commercial Corridors.** Streets that have an existing pattern of continuous ground floor commercial, and the intent is to maintain and promote that pattern.
- **Transition Commercial Corridors.** Streets that have some ground floor commercial space, and the intent is to expand the amount of ground floor commercial space provide ground floor commercial space.

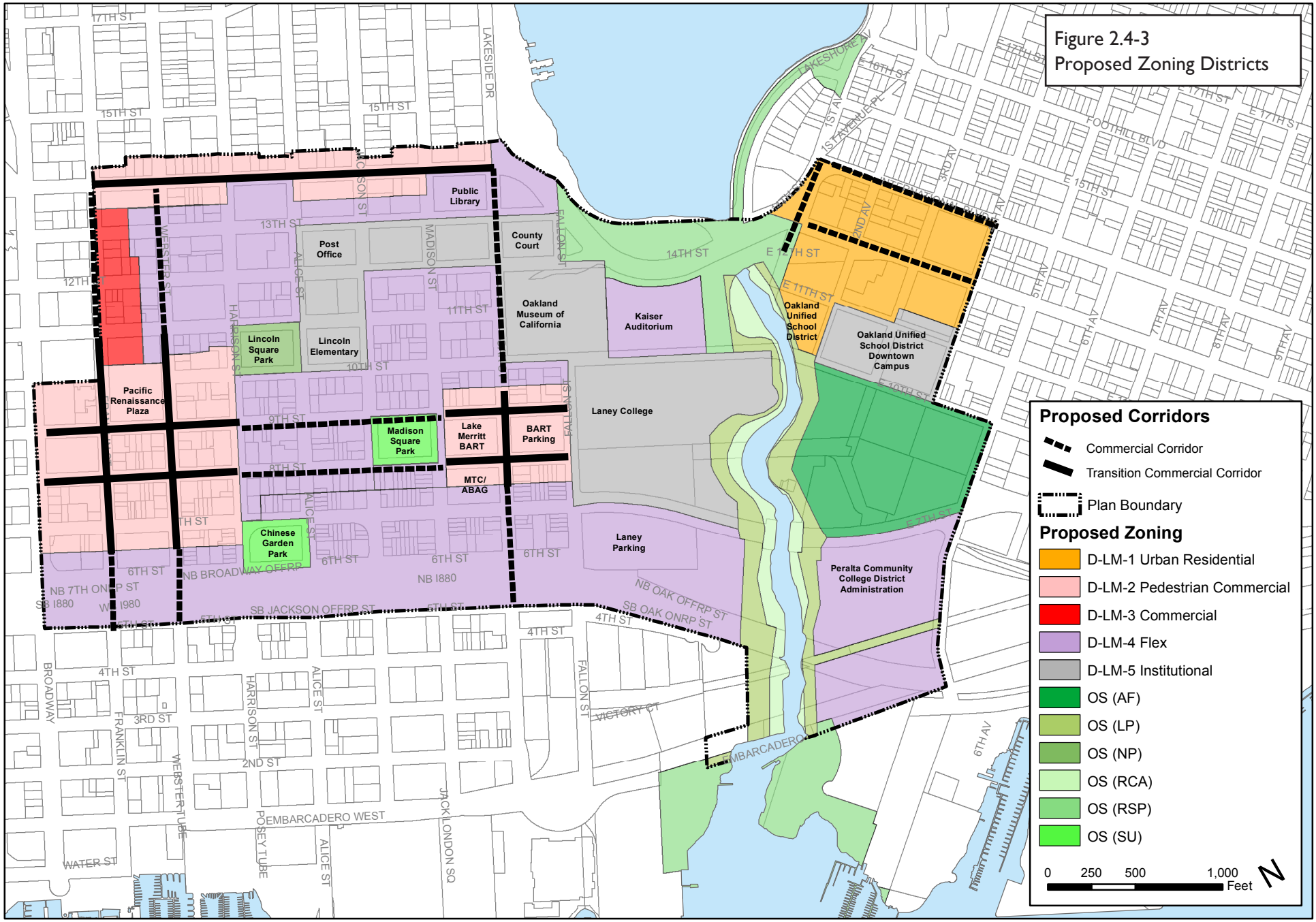


City of Oakland, Department of Planning, Building and Neighborhood Preservation
November 2012

CITY OF OAKLAND

LAKE MERRITT BART STATION AREA PLAN

Current Zoning Districts



City of Oakland, Department of Planning and Building, August 2013

CITY OF OAKLAND

LAKE MERRITT BART STATION AREA PLAN

Proposed Zoning Districts and Corridors

Height Areas

The proposed zoning amendments also include amendments to the Height Areas, to implement the proposed Station Area Plan's concepts for base and tower height limits. Existing Areas would be replaced by a new set of height areas reflecting the Draft Height Map in the proposed Station Area Plan. Existing and proposed height areas are shown in **Figures 2.4-4** and **2.4-5**, respectively. The Height Areas described here and illustrated in **Figure 2.4-5** represent the maximum heights allowed in specific geographic areas of the Station Area. However, any development above 275 feet would be required to provide community benefits in order to achieve those maximum heights. Future Plan Area development would also be subject to the Lake Merritt Station Area Plan Development Potential which consists of the reasonably foreseeable maximum development assumed for the EIR. Therefore, as discussed in greater detail below in Section 2.6: Adherence to Allowable Development Program, individual development projects would be required to undergo monitoring by the City to ensure that the overall development program is not exceeded. Proposed new height areas are as follows:

- **Height Area 1.** This Height Area would be consistent with the heights of existing buildings, with a total height limit of 45 feet. It is proposed along 7th Street in order to preserve the most intact portions of the historic 7th Street/Harrison Square Residential District Area of Primary Importance. Pitched roofs are typical of the historic district, and would be encouraged but not required for new development. New buildings would also be subject to design guidelines related to historic resources and that ensure compatible design.

  This Height Area is also proposed for the Fire Alarm Building site given its historic status, waterfront setting on Lake Merritt, and proximity to the County Courthouse.

- **Height Area 2.** This Height Area would have a total height limit of 85 feet and would be located along the northern edge of 14th Street. It is consistent with the existing Central Business District height map, which reflects the 2009 proposal vetted by the Gold Coast neighborhood to the north. This Height Area is also proposed for the Historic King block (bound by Harrison, Webster, 13th, and 12th Streets) to maintain heights consistent with the historic character of this block.

- **Height Area 3.** This Height Area would have a base height of 45 feet to reflect the existing neighborhood scale, and a total height limit of 175 feet. The Area would step down from Height Area 4 to transition to the smaller scaled Eastlake neighborhood to the east.

- **Height Area 4 and 4A.** This Height Area would have a base height of 45 feet to reflect the existing neighborhood scale, and a total height limit of 275 feet to accommodate high density and TOD. Height Area 4 would be located throughout much of the Planning Area, including the Chinatown core, the Lake Merritt BART Blocks, the area under the freeway, and the area just east of the Lake Merritt Channel which is envisioned as a gateway to the Eastlake neighborhood. The Lake Merritt BART blocks are identified as 4A, which indicates that development would be required to provide community benefits in order for it to achieve the maximum height limit of 400 feet.

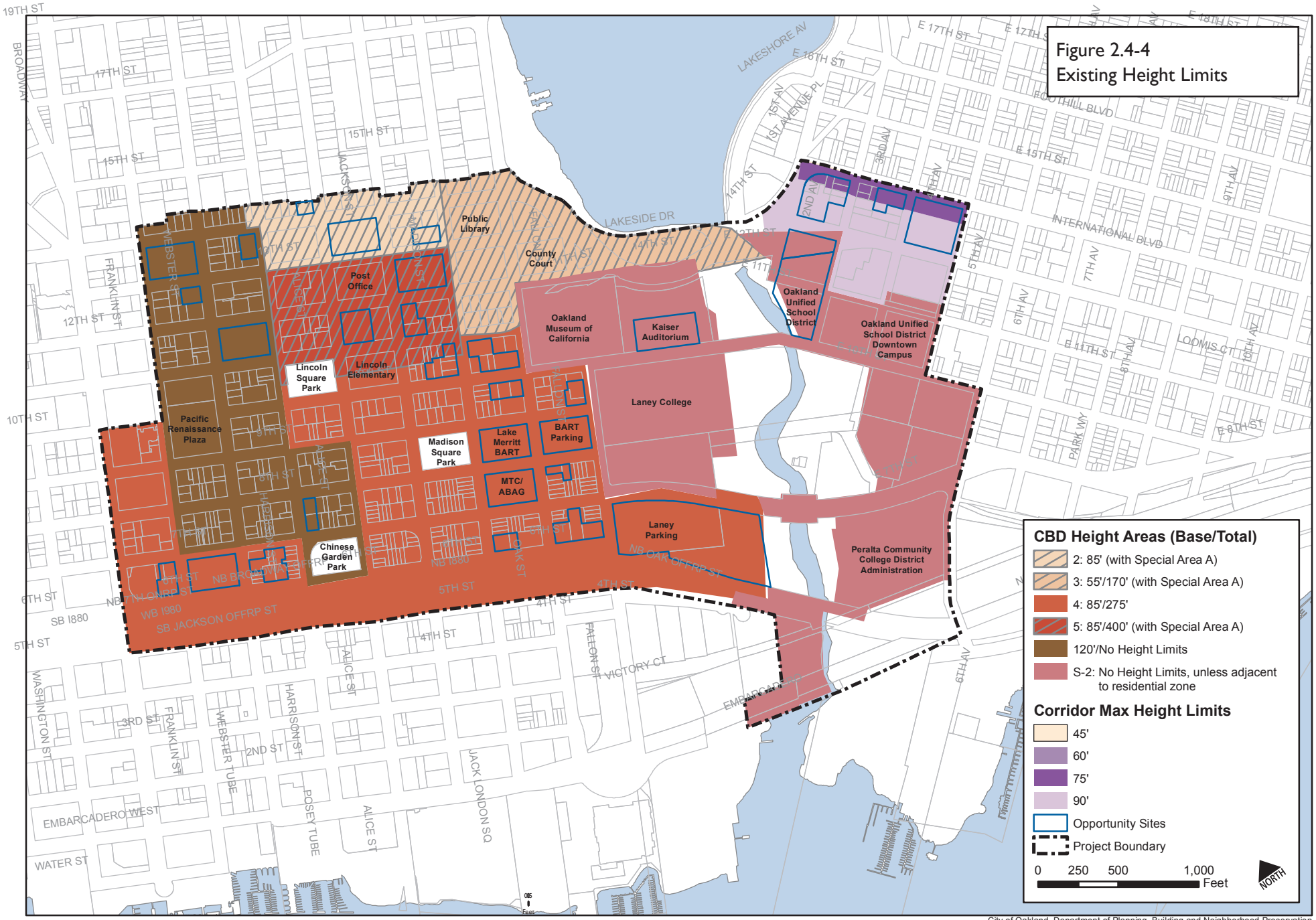
- **Height Area 5.** This Height Area would have a base height of 85 feet and a total height limit of 175 feet. These limits reflect the existing neighborhood scale and the transition to taller building base heights along 14th Street and leading to Downtown. The total height would step down from Height Areas to the west that link to Downtown Oakland.

- **Height Area 6.** This Height Area would encompass the large educational/institutional areas with a total height limit of 275 feet, with no base height limitation. Note that this height limit on institutional areas would represent a change from unlimited heights, but height limitations were determined to be desirable near the Lake Merritt channel.
- **Height Area 7.** This Height Area would have a base height of 85 feet and a total height limit of 275 feet. It is envisioned as a transitional area between the Chinatown Core and Broadway and I-880 Freeway, and along 14th Street between Area 5 and Area 8, which transitions into the Downtown core.
- **Height Area 8.** This Height Area would have a base height of 85 feet and a total height limit of 400 feet. For development over 275 feet, community benefits are required. It is proposed for the area bound by 11th, Webster, 13th, and Madison Streets (with the exclusion of the historic King block). This area transitions to the Downtown core and has substantial opportunity for high-density TOD.
- **Height Area 9.** This Height Area would accommodate the tallest buildings as the area nears the core of Downtown Oakland. The base height in this area is 125 feet, with no total height limit. For development over 275 feet, community benefits are required.

DESIGN GUIDELINES

The proposed Design Guidelines for the Lake Merritt Station Area Plan would complement the proposed zoning regulations, citywide design guidelines, and the design review procedures of the Oakland Planning Code. The proposed Lake Merritt Design Guidelines will provide certainty and predictability in the design review process through establishment of uniform decision-making criteria for all projects in the Lake Merritt Station Planning Area. These Design Guidelines, in combination with any other applicable citywide guidelines, serve as the basis for design review approval findings by City staff, and, when necessary, the City Planning Commission and the City Council. The proposed Guidelines are intended to be specific enough to guide development, but also to be flexible and qualitative enough to encourage creative design solutions.

Chapter 17.136 of the Planning Code determines the type of design review required for different projects. The proposed Lake Merritt Design Guidelines supplement the design review criteria contained in that Chapter and any other required criteria.

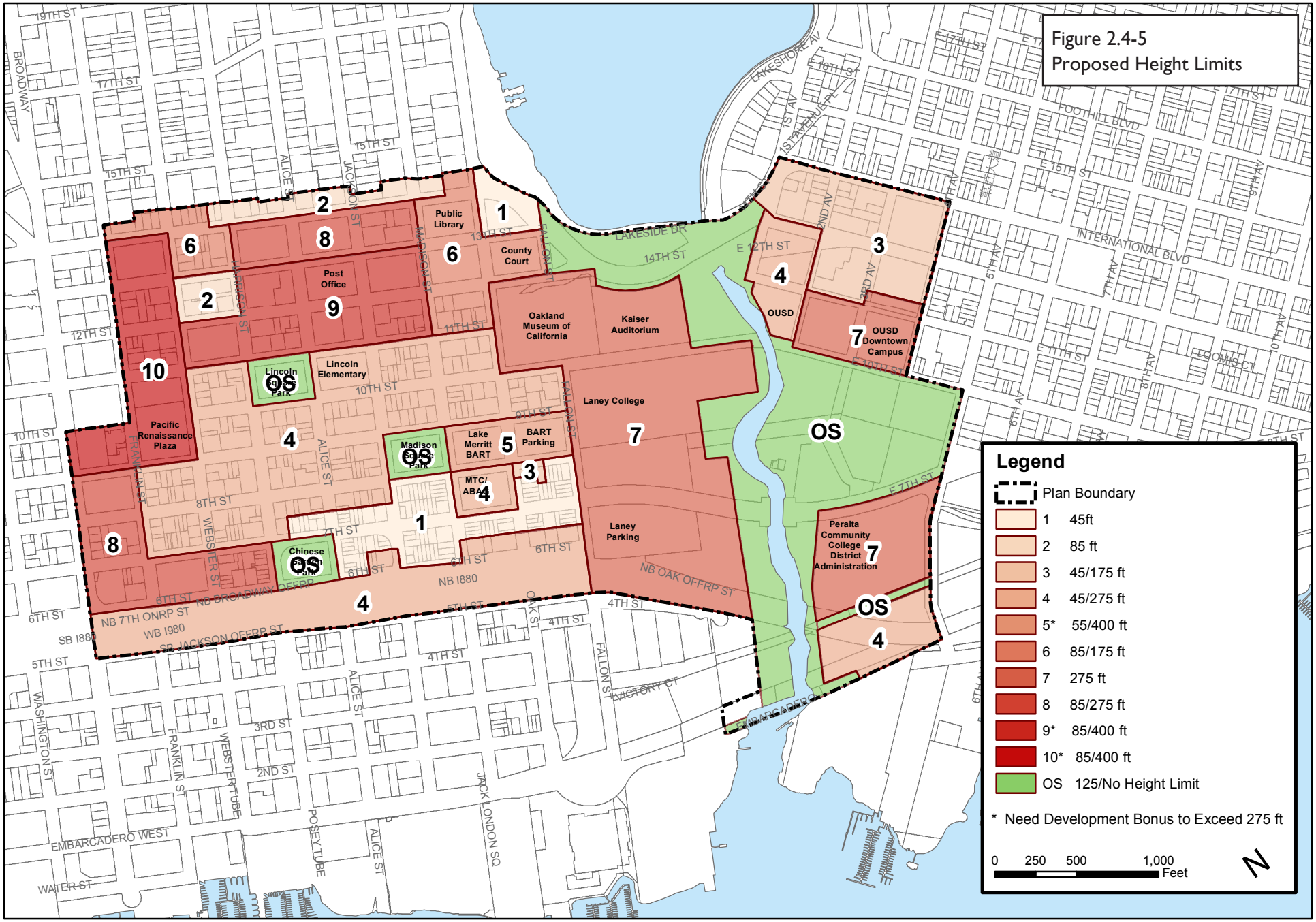


City of Oakland, Department of Planning, Building and Neighborhood Preservation
November 2012

CITY OF OAKLAND

LAKE MERRITT BART STATION AREA PLAN

Existing Height Limits



LAKE MERRITT BART STATION AREA PLAN

Proposed Height Areas

CITY OF OAKLAND

City of Oakland, Department of Planning and Building, Aug 2013

2.5 Reasonably Foreseeable Maximum Development

The project analyzed in this EIR is the amount of development that can be reasonably expected to occur in the Planning Area over the next 25 years, under the proposed Plan. This development potential is the reasonably foreseeable maximum development that would occur within the Planning Area during the life of the proposed Plan and is the level of development envisioned by the proposed Plan. The reasonably foreseeable maximum development that is the basis of this EIR analysis is different from the *theoretical ultimate development potential* in the Planning Area that would be permitted by full buildout under the revised General Plan and Planning Code regulations.

BUILDOUT AND OPPORTUNITY SITES

Although the proposed Plan applies a 25-year planning horizon, the proposed Plan is not intended to specify or anticipate when buildout will actually occur; nor does the designation of a site for a certain use necessarily mean that the site will be built/redeveloped for that use within the next 25 years.

New development is assumed to occur on vacant and under-utilized "opportunity sites," shown on **Figure 2.5-1**. These sites have been identified in a combination of ways, including mapping using Geographic Information Systems, field reconnaissance, consultation with City staff, interviews with stakeholders, community and CSG feedback, and research into individual parcels. While the identified opportunity sites are the best guess for sites that will redevelop over the planning period, new development is ultimately the decision of individual land owners, and it is likely that some of the sites identified as opportunity sites may remain in their current state, while others that are not identified as opportunity sites will undergo change.

The potential development identified for each opportunity site (in terms of residential units and square feet of non-residential space) was determined based on a variety of factors, including market dynamics, building feasibility, site size and location, and conceptual Plan policies. Total development potential is aligned with regional growth projections, and also takes into account the market opportunity assessment (for both 2020 and 2035).

Assumptions about buildout are as follows:

- ***Public Open Space*** is included throughout the Planning Area, and is estimated in acres. A 10-percent open space contribution is assumed for all sites over a half-block (0.7 acres) in size, with a few exceptions:
  - Four large block sites are identified as including 15 percent open space (sites 6, 8, 15, BART Station block, and BART Parking Lot block for illustrative purposes).
  - New regional park space is shown along the Lake Merritt Channel, with higher park area reflecting setbacks and open space along the channel.
- ***Percent of Lot Built*** identifies the portion of the lot assumed for development. This includes an assumption of setback above a base height. In most cases, this is assumed to be 70 percent. This coverage is less for sites along I-880 (60 percent) in order to account for increased setbacks away from the highway.

- ***Housing Densities*** are used to determine the number of housing units. Where noted, total units are consistent with development applications. Density is assumed at:
  - 145 units per acre for mid-rise development (six to eight stories)—this is the midpoint of the density ranges included in the Draft Plan.
  - 392 units per acre for high-rise development (nine stories and above)—this is the midpoint of the density ranges included in the Draft Plan.
  - 450 unit per acre for towers over 25 stories (identified on sites 6 and 15).
- ***Office*** numbers are based on an assumed footprint and the number of stories. For mixed-use sites with office and housing, office is assumed for a number of stories, with housing above/on separate stories. For redevelopment associated with Alameda County Master Plan (sites #11 and #13), development potential is based on County estimates.
- ***Retail*** is assumed to be at the ground floor only for the majority of sites, focused along key retail streets; the *average* assumption for ground floor retail is 35 percent of a site. Some sites have slightly higher or lower retail assumptions based on the portion of the site that fronts onto retail streets. The exception to the ground floor rule is on the Lake Merritt BART Station block where two stories of retail are included.
- ***Net New Development*** includes the subtraction of any existing uses on sites that are not vacant or parking lots. Five planned development projects are included

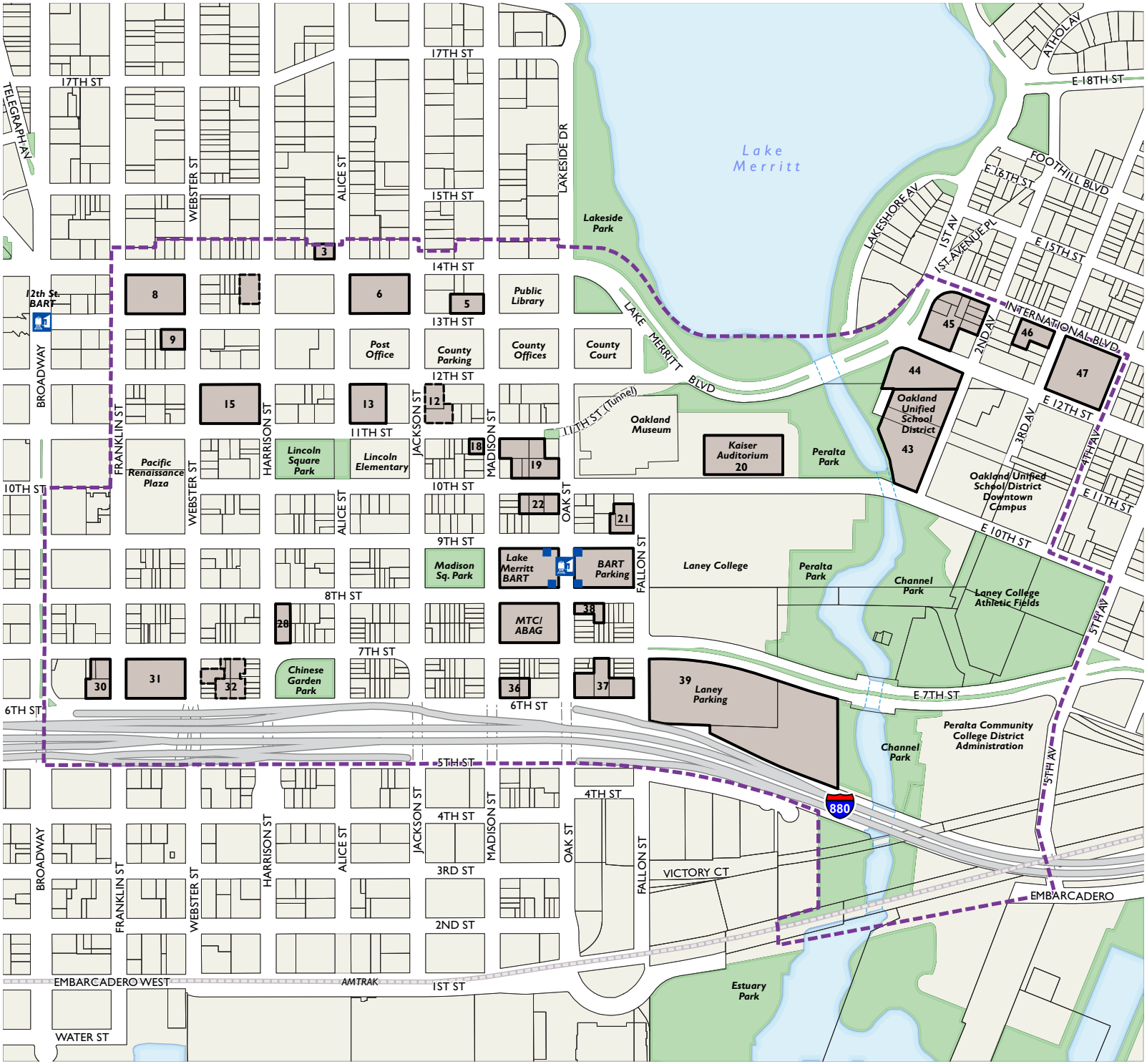


Figure 2.5-1
Opportunity Sites (Sites Most Likely to Redevelop)

- BART Station Entrance
- BART Station
- 6 — Opportunity Sites with Community Agreement or Vacant Sites
- 12 — Approved Development (not yet under Construction)
- Parks
- Planning Area

0 100 300 500 750 1,000
FEET

Source: City of Oakland and Dyett and Bhatia, 2009.

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REASONABLY FORESEEABLE MAXIMUM DEVELOPMENT

The proposed Plan establishes a long-range vision for a high-intensity neighborhood, including the addition of 4,900 new housing units expected to accommodate 4,700 households, 4,100 new jobs, 404,000 square feet of additional retail, 1,229,000 square feet of office uses, and 108,000 square feet of institutional uses in the next 25 years, as shown in **Table 2.5-1**. This represents more than doubling the residential population and increasing jobs by nearly 25 percent. The proposed Plan also assumes that a small boutique hotel (30 to 100 rooms) may be included as part of the non-residential development in the Planning Area. As a site for a hotel is not yet identified, the proposed Plan assumes the hotel square footage as part of the total office square footage. Detailed development potential by site and a complete list of assumptions are included in Appendix B of the proposed Station Area Plan.

Table 2.5-1: Reasonably Foreseeable Maximum Development Under the Proposed Plan

	Existing	*2020 Interim Net New*	*2035 Buildout Net New*	*2035 Total*	*Existing -2035 Percent Change*
Residential Units[1]	3,000	1,800	4,900	7,900	163%
Households[2]	2,900	1,700	4,700	7,600	162%
Population	6,100	3,600	9,900	16,000	162%
Retail Square Feet[3]	843,000	139,000	404,000	1,247,000	48%
Office Square Feet	1,022,000	442,000	1,229,000	2,251,000	120%
Institutional Square Feet	3,467,000	8,000	108,000	3,575,000	3%
Jobs[4]	17,800	1,400	4,100	21,900	23%

Notes:

1. Existing residential units based on ACTC/ABAG projections for 2005, with projects completed between 2005 and 2012 added in.
2. Households assume a 5% vacancy rate in the residential units.
3. Non-residential square feet are estimated based building footprint square footage, multiplied by the number of stories in existing buildings.
4. Existing jobs are based on ACTC/ABAG projections for 2005; Plan jobs are based on one job for every 350 square feet of retail space and one job for every 400 square feet of office space.
5. Net new development subtracts any existing land uses that would be replaced.

Source: Dyett & Bhatia, 2012; ABAG, 2009; Alameda County Transportation Commission, 2010.

Development Potential was calculated for the buildout year of 2035, as well as the interim year 2020. By 2020, the proposed Station Area Plan is projected to facilitate approximately 1,800 net new housing units, accommodating 1,700 households. The Planning Area would also have approximately 442,000 net new square feet of office space, 139,400 square feet of retail, and 8,000 square feet of institutional space, with a net loss of about 5,000 square feet of auto services, bringing 1,400 net new jobs.

The reasonably foreseeable maximum development for the Planning Area is not intended as a development cap that would restrict development. Rather, the proposed Plan allows for flexibility in the quantity and profile of future development as long as it conforms to the general traffic generation parameters. Through the established planning and environmental review and permitting processes

required of each individual development in the City and under the proposed Plan, the City would monitor actual development, associated generation of new automobile trips, and other traffic characteristics within the Planning Area as identified in Section 3.2 *Transportation and Traffic* of this EIR, as the proposed Plan is implemented. See Section 2.6 for more detail.

2.6 Adherence to Reasonably Foreseeable Maximum Development Program

The reasonably foreseeable maximum development under the proposed Plan is outlined in Section 2.5. It is important to note that this is distinctly different from the theoretical ultimate development potential in the Planning Area that would be permitted by full buildout under the revised General Plan and Planning Code regulations. This EIR examines the potential impacts associated with the reasonably foreseeable maximum development under the proposed Station Area Plan, and not the theoretical ultimate development permitted under the revised General Plan and Planning Code regulations. The theoretical ultimate development scenario is analyzed in this EIR in Chapter 4: Alternatives.

While the CEQA analysis herein is based on the development quantities set forth in the reasonably foreseeable maximum development, the intent of the proposed Plan and this EIR is to provide as much flexibility as possible in terms of the precise mix of newly developed land uses and their location within the Planning Area while conforming to this CEQA analysis and thresholds. Since traffic capacity is the key environmental factor constraining development, the reasonably foreseeable maximum development under the proposed Plan would be tracked and measured by vehicle trip generation rather than the amount of specific land uses. As the Planning Area develops, the City's Planning and Zoning Division would track amounts of development by land use, but would also estimate net new generation of automobile trips. Any proposal for development resulting in net trip generation in excess of the amounts estimated and analyzed in Section *3.2 Transportation and Traffic*, would be required to conduct a traffic impact analysis to establish that other traffic characteristics, including remaining circulation capacity, within the Planning Area and within the study area as identified in Section *3.2 Transportation and Traffic*, would not result in new or more severe environmental impacts than are analyzed and disclosed in this EIR.

In sum, this EIR evaluates the impacts of the reasonably foreseeable maximum development program, and as long as the actual buildout stays within the impact envelope, there can be a mix-and-match between various land uses – for instance, there can be more retail if less office is built, or vice-versa.

2.7 Station Area Plan Implementation

The proposed Plan provides specific policy guidance for implementation of its initiatives and establishes a basis for coordinated action by the City and its partners, including BART, Laney College, and other community stakeholders. The proposed Plan's Implementation Program describes the responsibilities for implementation and outlines specific implementation actions that will be initiated after adoption. The Implementation Program will be updated as often as deemed necessary to ensure that it reflects the City's implementation and strategic priorities.

See Section 2.4: Concurrent Plan Components for policy and regulatory implementation measures.

IMPLMENTATION STRATEGIES

The proposed Plan's Implementation Strategy has some mechanisms that can be undertaken directly, such as developer incentives, which are described as Phase I Implementation strategies. The timing of Phase I Implementation strategy mechanisms is dependent only upon securing funds or the timing of related development activities that are associated with their completion.

Phase I Implementation strategies include the following:

- Developer Incentive Program
  - The proposed Plan recommends the creation of a Developer Incentive Program, which would set a lower threshold for the requirement of developer provision of community benefits (lower than the 275 foot building height threshold included in the Draft Plan); or allow the relaxation of development requirements, such as parking or open space in exchange for provision of certain public amenities, such as affordable housing, public open space, or childcare centers.
  - A developer incentive program would stay within the height, density and FAR envelope of the maximum development potential analyzed in this EIR.
  - The incentive program must be entirely voluntary. Otherwise, the program would trigger a legal requirement for a nexus study prior to implementation, and thus could not be implemented immediately.

- Development Agreements
  - Section 17.138 of the Planning Code establishes a framework for Development Agreements. Development Agreements allow the City to negotiate with developers for public amenities through a contractual process and reach a recorded agreement.
  - The Planning Code limits Development Agreements to projects involving at least 4 acres of land or 500,000 sq. ft. of proposed floor area, which would limit applicability in the Planning Area.
  - Development Agreements cannot be required.
  - The proposed Station Area Plan does not propose any changes to this framework.

- Grants and Loans

Other implementation mechanisms require additional nexus studies, legislative actions, detailed engineering studies, or other approvals before they can be undertaken, such as an impact fee program or formation of an assessment district and cannot be reasonably assessed. These are described as Phase II Implementation strategy mechanisms since they rely on future actions. Phase II Implementation strategy mechanisms include the following:

- Developer exactions (e.g. requirements for on-site amenities or payment of in-lieu fees) would require a nexus study, in accordance with Government Code §66000 et seq. A nexus study would:
  - Identify the purpose of the fee.
  - Identify the use to which the fee is to be put. If the use is financing public facilities, the facilities must be identified.
  - Determine that there is a reasonable relationship between the fee's use and the type of development project on which the fee is imposed (commonly called a Nexus).

- Assessment districts would impose taxes on properties in the study area to finance improvements. Depending on the method of assessment, the following studies/economic analyses would be required:
  - Infrastructure Finance Districts require legislative adoption of the district and its purposes. At this time IFDs cannot be adopted in redevelopment project areas such as the Planning Area.
  - Community Facility Districts require engineering studies and definition of the cost of meeting the infrastructure and service needs of new development. The costs are recovered in the form of a special property tax on real estate.
  - Special Assessment Districts require engineering studies and development of benefit formulas to define the improvement program and to establish how much each parcel would be taxed. Each parcel in the district would be assessed according to the benefit it receives from the services and improvements (example: the City's existing Landscape and Lighting District).
  - The particular method of allocating the special tax, and the facilities and services to be authorized, would need to be specified.
  - If bonds are to be authorized, their amount and maximum term must be specified as well.

- In addition to the complex economic studies, some of these mechanisms would also require voter approval (to establish assessments, pass bonds, etc). All would require political support and City Council adoption.

If the Implementation strategy mechanism for a specific project is currently unknown (such as for streetscape improvements which could be funded through Phase I or Phase II implementation strategy mechanisms), and no additional feasibility or technical study is required for that project, it is included as part of the proposed Plan analyzed within this EIR. However, since it cannot be ensured that such projects will be fully funded with a Phase I Implementation strategy mechanism, they are not considered reliable policies for the mitigation of environmental impacts; this is noted as appropriate throughout the EIR.

All proposed Plan improvements, their estimated costs, potential funding mechanisms, and recommendations are included in the proposed Plan in Chapter 10: Implementation.

RESPONSIBLE AGENCIES

Overall responsibility for plan implementation is vested in the City Council, Planning Commission, and Planning and Zoning Division. The proposed Station Area Plan includes an implementation chapter, which lists the actions needed to enact the proposed Plan. These mechanisms will require the involvement of City departments and divisions including Planning, Public Works, Parks and Recreation, and the Police Department. Other key stakeholders will also play a role in realizing Plan goals, including BART, Laney College, and community-based organizations in the Planning Area.

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3.0 Environmental Analysis– Settings, Impacts, and Mitigation Measures

Introduction to Environmental Analysis

Chapter 3 of this Draft Environmental Impact Report (EIR) contains a discussion of potential environmental effects as a result of the implementation of the proposed Plan. Chapter 3 includes information related to existing conditions for each issue area, method of analysis, summary of impacts, and detailed analyses of the type and magnitude of individual and/or cumulative environmental impacts. California Environmental Quality Act (CEQA) Guidelines require that this Draft EIR include a description of the physical environmental conditions in the vicinity of the proposed Plan, with special emphasis placed on environmental resources that are rare or unique to the region and that would be affected by the proposed Plan.

Standard Conditions of Approval

The City's Standard Conditions of Approval and Uniformly Applied Development Standards [referred to in this EIR as "Standard Conditions of Approval" (SCAs)] are incorporated into projects as conditions of approval regardless of a project's (or Plan's) environmental determination. As applicable, the SCAs are adopted as requirements of an individual project when it is approved by the City and are designed to, and will, substantially mitigate environmental effects.

In reviewing project applications, the City determines which SCAs are applied, based upon the zoning district, community plan, and the type(s) of permit(s)/approval(s) required for the project. For example, SCAs related to creek protection permits will only be applied to projects on creekside properties.

Because SCAs are mandatory City requirements, the impact analysis assumes that these will be imposed and implemented by each individual development. If an SCA would reduce a potentially significant impact to less than significant, the impact is determined to be less than significant and no mitigation is recommended. SCAs are not listed as mitigation measures.

The SCAs incorporate development policies and standards from various adopted plans, policies, and ordinances (such as the Oakland Planning and Municipal Codes, Oakland Creek Protection, Stormwater Management and Discharge Control Ordinance, Oakland Tree Protection Ordinance, Oakland Grading Regulations, National Pollutant Discharge Elimination System (NPDES) permit requirements, Housing Element-related mitigation measures, California Building Code, and Uniform Fire Code, et al.), which have been found to substantially mitigate environmental effects. Where there are peculiar circumstances associated with a project or project site that will result in significant environmental impacts despite

implementation of the SCAs, the City will determine whether there are feasible mitigation measures to reduce the impact to less than significant.

All relevant SCAs have been incorporated as part of the analysis for development facilitated by the proposed Plan.

Format and Content of Environmental Analysis

FORMAT OF ENVIRONMENTAL TOPICS SECTIONS, IMPACTS STATEMENTS, AND MITIGATION MEASURES

Each environmental topic section generally includes two main subsections:

- *Environmental Setting*, which includes baseline conditions, regulatory setting, Thresholds/Criteria of Significance, and identification of applicable Standard Conditions of Approval (which are discussed below); and

- *Impacts and Mitigation Measures*, which identifies and discusses the potential impact and cites applicable Standard Conditions of Approval and mitigation measures that would, to the extent possible, reduce or eliminate adverse impacts identified in this chapter.

This EIR identifies all impacts with an abbreviated designation that corresponds to the environmental topic addressed (e.g., "HAZ" for hazardous materials). The topic designator is followed by a number that indicates the sequence in which the impact statement occurs within the section. For example, "Impact HAZ-1" is the first (i.e., "1") hazardous materials impact identified in the EIR. All impact statements are presented in bold text.

The Impact Classification (discussed below) of the project's effects prior to implementation of mitigation measures is stated in parentheses immediately following the impact statement. The Impact Classification stated in the parentheses immediately following the impact statement does, however, already incorporate the City's Standard Conditions of Approval and Uniformly Applied Development Standards, discussed below.

Similarly, each mitigation measure is numbered to correspond with the impact category that it addresses. For example "Mitigation Measure HAZ-1" would be the first mitigation identified to address the first hazardous materials impact (i.e., "HAZ"). All mitigation measure statements are presented in bold text.

ENVIRONMENTAL SETTING

Physical Setting

This describes the existing physical environmental conditions in the Planning Area to provide the baseline condition to which proposed Plan-related impacts are compared.

Regulatory Setting

This includes general and regional plans or local, State or federal agency regulations applicable to the proposed Plan. This section only includes plans and regulations related to the identified impacts and does

not include a comprehensive list of all the plans and regulations that pertain to each environmental issue area addressed within the Planning Area.

IMPACT ANALYSIS

This includes analysis of potential environmental impacts associated with implementation of the proposed Plan. The impact analysis in this EIR assumes implementation of the proposed Plan through 2035. Transportation and Traffic related analyses also include a 2020 interim year, per the City of Oakland CEQA Thresholds of Significance Guidelines.

Thresholds of Significance

The thresholds for significance used in this EIR are from the City of Oakland's Thresholds of Significance Guidelines (May 22, 2013). The City has established these Thresholds/Criteria of Significance Guidelines to help clarify and standardize analysis and decision-making in the environmental review process in the City of Oakland. The Thresholds are intended to implement and supplement provisions in the CEQA Guidelines for determining the significance of environmental effects, including CEQA Guidelines Sections 15064, 15064.5, 15065, 15382, and Appendix G, and form the basis of the City's Initial Study and Environmental Review Checklist.

CEQA requires the analysis of potential adverse effects of a project on the environment. Potential effects of the environment on a project are legally not required to be analyzed or mitigated under CEQA. However, this EIR nevertheless analyzes potential effects of "the environment on the project" in order to provide information to the public and decision-makers. Where a potential significant effect of the environment on the project is identified, the document, as appropriate, identifies City Standard Conditions of Approval and/or project-specific non-CEQA recommendations to address these issues.

METHODOLOGY AND ASSUMPTIONS

This subsection identifies the methodology and major assumptions used to analyze potential environmental impacts.

Summary of Impacts

This subsection summarizes the analysis and finding of significance for each issue area.

Impacts

Each impact includes the numbered impact statement followed by the ultimate finding of significance in parentheses. The level of significance is determined by considering the predicted magnitude of the proposed Plan's potential for significant impacts in each area. SCAs and Policies in the proposed Plan that would avoid or reduce impacts are also discussed for purposes of assessing impacts. Following the discussion of each stated impact, feasible mitigation measures that could avoid or reduce the severity of identified impacts are identified as appropriate. If an impact is not identified for specific significance criteria listed in the section, a brief explanation is provided within the Summary of Impacts section. Citations for this chapter are contained within the relevant discussion.

Significance Classifications

Thresholds of significance, beyond which impacts are considered to be significant, are established for each environmental issue analyzed. The thresholds of significance are based on the City of Oakland CEQA Thresholds of Significance Guidelines. While the threshold for determining significant impacts is unique to each environmental topic, the classification of the impacts is uniformly applied in accordance with the following definitions:

Less Than Significant (LTS) Impact – The impacts of the proposed Plan, either before or after implementation of SCAs and/or feasible mitigation measures, do not reach or exceed the defined Threshold/Criteria of Significance. Generally, no mitigation measure is required for an LTS impact.

Potentially Significant (PS) Impact – The impact of the proposed Plan may reach or exceed the defined Threshold/Criteria of Significance, however it is not evident that, even in the theoretical worst-case standard conditions, a significant impact would occur. Where feasible, SCAs and/or mitigation measures are identified to reduce PS impact to LTS.

Significant (S) Impact – The impact of the proposed Plan is expected to reach or exceed the defined Threshold/Criteria of Significance. Feasible mitigation measures and/or SCAs may or may not be identified to reduce the significant impact to a less than significant level.

Significant and Unavoidable (SU) Impact – The impact of the proposed Plan reaches or exceeds the defined Threshold/Criteria of Significance. No feasible mitigation measure is available to reduce the S impact to LTS. In these cases, feasible mitigation measures are identified to reduce the S impact to the maximum feasible extent, and the significant impact considered SU. Impacts are also classified as SU if a feasible mitigation measure is identified that would reduce the impact to LTS, but the approval and/or implementation of the mitigation measure is not within the City of Oakland's or the proposed Plan applicant's sole control, in which case the analysis cannot presume implementation of the mitigation measure and the resulting LTS impact. It is important to clarify that SU is an impact classification that only applies after consideration of possible mitigation measures.

Cumulatively Significant Impact, Proposed Plan Contribution Less than Considerable – Impact that exceeds the defined threshold of cumulative based on projected growth for the region; however, analysis indicates that the proposed Plan's contribution to the impact is less than considerable.

No Impact – No noticeable adverse effect on the environmental would occur. No impact findings are included in the Summary of Impacts section rather than as impact statements.

3.1 Land Use, Planning, Population and Housing

This section provides an overview of the existing land uses in the Planning Area and surrounding environment, the regulatory framework, an analysis of potential land use, population and housing impacts that would result from implementation of the proposed Station Area Plan, and mitigation measures where appropriate.

Environmental Setting

PHYSICAL SETTING

Existing Land Use

The Planning Area currently has approximately 3,000 housing units, 842,800 square feet of retail uses, 1,022,000 square feet of office uses, and 3,467,000 square feet of institutional uses. Existing acreages for each land use in the Planning Area and in the larger half-mile radius around the Lake Merritt BART station are shown in **Table 3.1-1**. All land use calculations exclude rights-of-way and bodies of water. **Figure 3.1-1** shows existing land use in the Planning Area and the larger half-mile radius.

Currently 32 percent of the land area in the half-mile radius is made up of public and institutional uses, which are focused around the Lake Merritt Channel; about 18 percent is residential, which is made up of roughly 95 percent multifamily units; 12 percent is parkland; 8 percent is light industrial/warehouse; and 7 percent is mixed use. In the smaller Planning Area, a higher proportion of land is public/institutional (43 percent), with correspondingly lower percentages of residential use (10 percent) and light industrial/warehouse use (1 percent).

Public and Institutional

Public and institutional uses are among the most prominent land uses in the area. These uses are largely concentrated along the Lake Merritt Channel and along 13th Street and include the Laney College campus and sports fields, the Peralta Community College District Administration buildings, the Oakland Museum of California, the Kaiser Auditorium, the County Court and Offices, the Public Library, the Post Office, and the Oakland Unified School District (OUSD) administrative offices. Other small-scale public and institutional uses are found throughout the Planning Area. These uses cover 92 acres in the half-mile radius, including 75 acres in the Planning Area (32 and 39 percent of the total acreage in each area, respectively).

Status of Lake Merritt BART Administrative Building

BART conducted a study in 2002 and determined that the Lake Merritt Administrative Building (LMA), located at 800 Madison Street, would be at risk for significant damage in the event of an earthquake. In

2007, BART commenced dismantling of the LMA structure with the goal of removing the above-grade facilities. Following the dismantling, all pilings from the LMA structure remain at a height of approximately four feet above ground. These pilings have been capped to look like bollards. This will add flexibility for the future. If the decision is made to build on top of the site again, new development could potentially tie to the remaining pilings and foundation.

Several critical functions that serve the entire BART system are located at this site, including the train control system, police, communications, and maintenance. Any proposed land uses would need to take into account the existing and future BART needs, including the tunnel, two head houses, an HVAC system, two station portals (entrances), and the Operations Control Center, which is expanding in order to accommodate the extension of the BART system to San Jose. Development above the tunnel would result in higher than average construction costs.

Residential

Residential land use covers 51 acres (18 percent) of the half-mile radius around the Lake Merritt BART Station. If mixed-use developments with residential uses are included, the number increases to 63 acres (23 percent). There are 6,300 housing units within the half-mile radius. The smaller Planning Area includes 18 acres of residential land (10 percent of the Planning Area) or 28 acres (16 percent) if mixed use development with residential is included. There are 3,000 housing units in the Planning Area.

Residential uses are concentrated in several areas, including the Lakeside Apartments District, located at the northern edge of the radius along Lake Merritt, outside the Planning Area; the Eastlake neighborhood at the northeast corner of the radius both within and outside the Planning Area; the Residential Chinatown area; and loft conversions to housing in the Jack London District. Around 95 percent of housing units are multi-family, with single-family housing primarily located in the eight blocks between 6th, 8th, Fallon, and Alice Streets.

Parks and Open Space

There are 35 acres of parkland in the half-mile radius Planning Area, making up 12 percent of the area. Of this, 24 acres are within the Planning Area, comprising 14 percent of the total. There are three locally serving urban parks and three regional parks. The local parks, Lincoln Square Park, Madison Square Park, and Chinese Garden (Harrison Square) Park, are located in the Chinatown Residential sub-area. The regional parkland surrounding Lake Merritt is heavily used and has recently been renovated with Measure DD funds. Lake Merritt Channel Park is also regional serving, though will serve many more people within the next year when Measure DD projects connect it to Lake Merritt. About 15 acres of open space are owned by the Peralta Community College District. There is also regional parkland along the waterfront at Estuary Park. New parkland under construction at the southern edge of Lake Merritt will add five acres.

Light Industrial/Warehouse

Light industrial and warehouse uses make up about 24 acres, or 8 percent, of the radius, but just one acre of the Planning Area. These uses are primarily located south of I-880, but are also scattered in smaller parcels throughout. This category includes uses such as printing, warehousing, and storage.

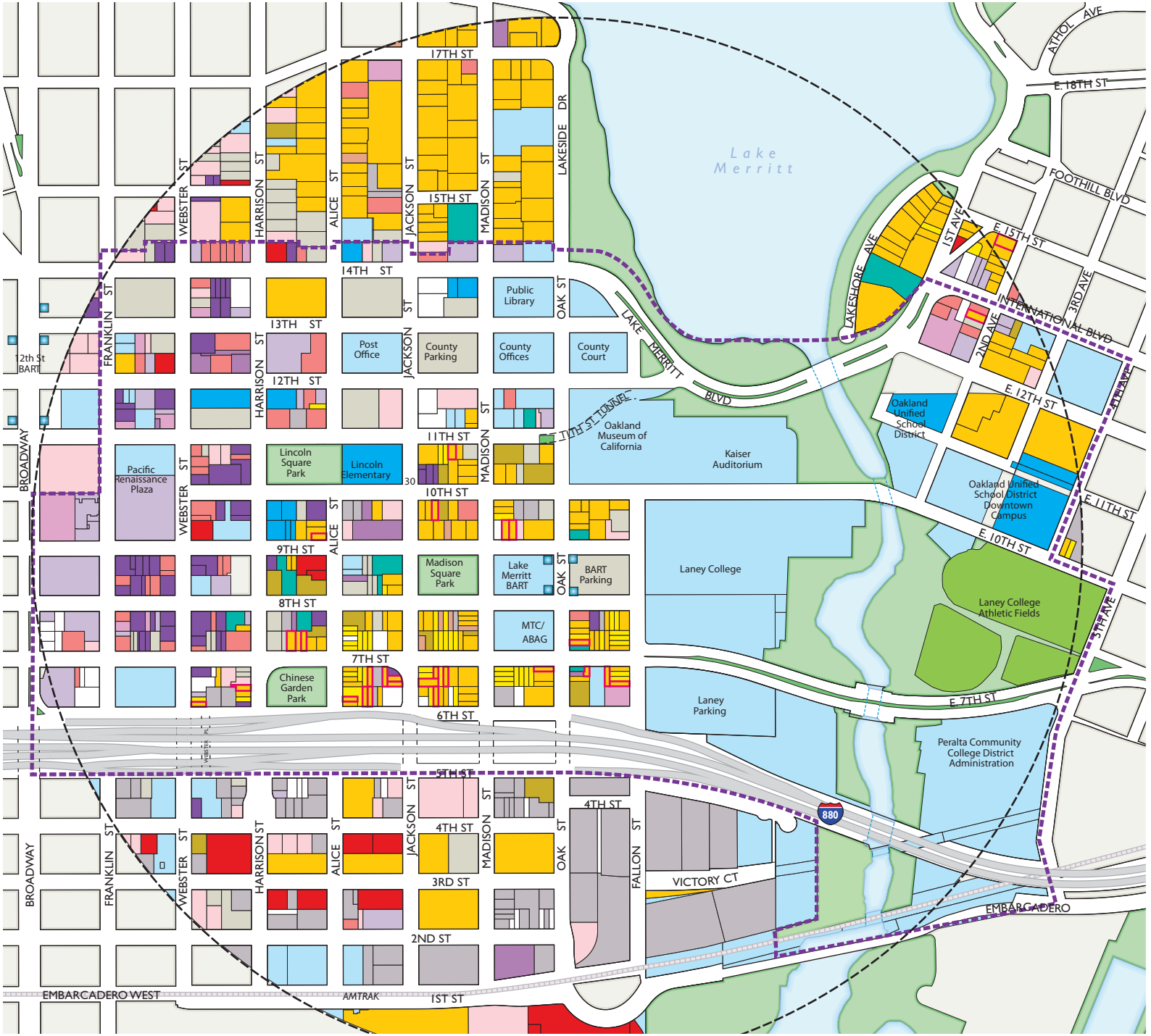

Figure 3.1-1
Existing Land Use (2010)

- Single Family Residential
- Multi-family Residential
- Substandard Multifamily
- Boarding or Rooming
- Hotel/Motel
- Commercial
- Retail/Restaurant
- Mixed Use Residential/ Retail
- Mixed Use Residential/ Office
- Mixed Use Office/Retail
- Auto Services
- Office
- Light Industrial/ Warehouse
- Public/Institutional
- Churches/Temples
- Schools/Pre-K Childcare
- Parking
- Vacant
- Open Space
- Planning Area
- 1/2 Mile Radius

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Mixed Use

Throughout the area, mixed-use developments cover 19 acres, or 7 percent of the half-mile radius. The Planning Area contains 17 acres of mixed-use development (10 percent of the Planning Area). The mixed use developments are primarily of three characters: retail at the ground floor with residential units above, retail at the ground floor with office space above, or office at the ground floor with residential units above. The majority of mixed-use developments (nearly 90 percent) include retail at the ground floor. Mixed-use buildings are found primarily in the Chinatown Commercial core and near downtown Oakland.

Parking

There are about 15 acres of parking lots located throughout the radius, particularly in the northern edge. Of this, 11 acres are within the Planning Area. While some parking is structured, several lots are surface parking. The Laney College parking lot is not counted here, as it is covered above as a Public/Institutional land use.

Retail and Restaurant

Retail and restaurant uses are primarily found in the Chinatown Commercial sub-area and in the Planning Area closest to downtown Oakland. Other retail and restaurants are in mixed-use buildings, generally on the ground floor with either office or residential space above. There is a notable lack of retail and restaurants immediately surrounding the Lake Merritt BART Station, Laney College, and the Public/Educational sub-area.

Office

While many office uses in the area are found in mixed-use buildings, there are several buildings that are solely office buildings. The actual amount of office space is higher than reflected in **Table 3.1-1** because much of the office space is categorized as public and institutional, such as County and Community College District administration offices.

Schools

The Planning Area is home to Lincoln Elementary School, La Escuelita Elementary, and Dewey High School, and the Downtown Education Complex (DEC), which includes La Escuelita Elementary, MetWest High School, and two child development centers (CDCs) as well as multi-use facilities available to the community. Construction began in the spring of 2011 and will proceed in two phases, with the new La Escuelita Elementary in the first phase and the new MetWest High School and CDCs in the second phase, with completion projected for the fall of 2014. There are also several charter schools, preschools and childcare centers throughout the area. Altogether, school uses account for seven acres in the half-mile radius area, all of which are within the Planning Area. Laney College is a major land use in the Planning Area and is considered a Public/Institutional use for this analysis.

Other Uses

- There are several hotels and motels in the area, such as the Marriott on Broadway and several smaller and low-cost motels that may be used as single room occupancies.
- There are numerous churches and temples in the area, which provide community and regional meeting areas as well as some social services. Churches are located north of I-880.
- There are seven acres of vacant land in the Planning Area. Vacant land includes parcels that are either properties with no buildings or properties with buildings that are clearly empty and/or for sale or lease.

Table 3.1-1: Existing Land Use (2010)

	Station Area (Half-Mile Radius)		*Planning Area*	
Existing Land Use	*Acres*	*Percent of Total*	*Acres*	*Percent of Total*
Public/Institutional	92	32%	75	43%
Residential	51	18%	18	10%
Residential Multi-Family	46	16%	14	8%
Residential Single Family	3	1%	3	2%
Multi-Family Housing, Substandard Quality	2	1%	2	1%
Parks	35	12%	24	14%
Light Industrial/Warehouse	24	8%	2	1%
Mixed Use	19	7%	17	10%
Mixed Use Office/Retail	7	2%	6	4%
Mixed Use Residential/Office	2	1%	1	1%
Mixed Use Residential/Retail	10	4%	9	5%
Parking	15	5%	11	6%
Office	13	5%	3	2%
Retail and Restaurants	7	2%	6	3%
Schools/Pre-K/Childcare	7	2%	7	4%
Vacant	7	2%	4	2%
Commercial	6	2%	1	1%
Churches/Temple	3	1%	1	1%
Hotel/Motel	3	1%	3	2%
Auto Services	3	1%	2	1%
Boarding or Rooming	1	0%	0	0%
Grand Total[1]	**286**	**100%**	**173**	**100%**

1. Total acreage excludes right of way and bodies of water.

Source: Dyett & Bhatia, 2012; City of Oakland, 2009; County of Alameda, 2009.

Approved Development Projects

There are currently four projects in the Planning Area that have been approved but not built, including 573 residential units and 25,110 square feet of retail. These projects range from 27 units to 380 units. These projects are included in the total net new development in the Planning Area (included as part of the proposed Plan, not part of the cumulative context). Projects in the pipeline have gone through their own CEQA review.

There is one large proposed development project in the vicinity but beyond the half-mile radius of the Lake Merritt BART Station. The Oak to Ninth Avenue project, approved by the City Council on July 18, 2006, covers approximately 64 acres of waterfront property bound by Embarcadero Road, Fallon Street, 10th Avenue and the Estuary. The development includes up to 3,100 residential units including 465 affordable housing units (15 percent of the total), 200,000 square feet of ground-floor commercial space, a minimum of 3,950 parking spaces, approximately 32 acres of park and public open space, two renovated marinas (170 boat slips), and an existing wetlands restoration area. The project will be constructed in four phases over a 17-year period. Oak to Ninth is particularly relevant to the proposed Plan given that it represents a relatively substantial increase in residential and commercial space in the area. The addition of this development will impact the Planning Area in terms of traffic and market absorption, but will also be crucial to consider in terms of housing supply and demand in the area.

Population and Housing

The Planning Area has around 3,000 housing units and 2,900 households. The relatively low number of residents per household (1.96) results in a Planning Area population of around 6,000. Compared to the rest of Oakland, the area's population is more Asian (especially Chinese), older, has smaller-sized households, is lower income, and is more likely to rent its housing. Only 15 percent of households include someone under the age of 18, compared to 33.5 percent citywide. Approximately 30 percent of the Planning Area population is age 60 or older, compared to 16 percent citywide.

Existing Housing Supply

As stated above, there are approximately 3,000 housing units in the Planning Area. Within the Planning Area, 383 housing units have been completed since 2005 and another 573 units have been proposed or are under construction. A major approved project under development near the Planning Area is the Oak to Ninth development, which, if completed, would add over 3,000 housing units to the larger area.

The County of Alameda Assessor's data for the area identifies several residential buildings in the Planning Area as being of substandard quality, meaning of lesser quality than Code 22, 23, or 24. The substandard units are located primarily in the area west of the institutional uses (Fallon Street), north of I-880, south of the County offices (11th Street), and east of the Chinatown Commercial core. Many of these properties are part of the 7th Street/Harrison Square Residential District Area of Primary Importance (API). Nearly 40 percent of the housing units within the Planning Area are subsidized affordable housing units. There are 1,176 City or other government assisted affordable housing units in 13 buildings in the Planning Area.

Of these sites, four are considered to be "at risk" of conversion to market rate, according to the City's Housing Element. However, the level of risk is very low.

- Hotel Oakland: Section 8 contract expires in 2012, but the management company is expected to renew, so relatively low risk.
- Lakemount/Lakeside Apartments: Same as above; Section 8 contract was set to expire in 2009, but the company was going to renew.
- Eldridge Gonaway: Affordability covenants expire in 2012. Operated by a nonprofit.
- J.L. Richard Terrace: Regulatory restrictions expire at maturity date of federal financing in 2026 (i.e., low risk for the time being), also operated by a nonprofit.

REGULATORY SETTING

State and Regional

State of California Housing and Community Development and ABAG

The State Department of Housing and Community Development (HCD) is responsible for determining the regional housing need for all jurisdictions in California and ensuring the availability of affordable housing for all income groups.

Through its role as the Bay Area's council of governments, the Association of Bay Area Governments (ABAG) has been designated by the State and federal governments as the official comprehensive planning agency for the Bay Area. ABAG reviews projects of regional significance for consistency with regional plans and is also responsible for preparation of the Regional Housing Needs Assessment (RHNA), pursuant to California Government Code Section 65584(a).

State of California Tidelands Trust

Land along the Lake Merritt Channel is part of the Tidelands Trust. The Port of Oakland serves as trustee of these lands under authority granted by the California State Lands Commission, which has oversight of all Tidelands Trust property in California. The Tideland Trust imposes three principal conditions:

- Land uses are limited to Trust purposes;
- Sale of fee title to Trust property to private entities or persons is prohibited, although ground leases of up to 66 years are allowed; and
- Revenues received by the trustee from the use of Trust property must be devoted to Trust purposes.

Permitted uses under the Tideland Trust generally include harbors and aviation, as well as uses that attract people to the waterfront, promote recreation, protect habitat, or preserve open space. Thus, visitor-serving retail uses, hotel, entertainment, and recreation uses are generally permitted under the Tideland Trust. However, residential, non-trust-related office, industrial, and research and development uses are generally not permitted uses of Tideland Trust properties.

Local

The City has a number of land use plans, policies, and regulations that have jurisdiction over the Planning Area. This EIR is required to evaluate whether the proposed Plan fundamentally conflicts with land use policies or regulations adopted for the purpose of avoiding or mitigating an environmental effect, in a way that would result in a physical change in the environment. This EIR is also concerned with issues of housing supply, residential displacement, population growth, and infrastructure need. Therefore, this section focuses on existing regulations that pertain to these topics. Only policies that are relevant to the context and approach of the Lake Merritt Station Area Plan are included.

Applicable Land Use Plans

The City of Oakland CEQA Thresholds/Criteria of Significance Guidelines (May 22, 2013), Appendix C of the above document includes a list of Oakland's major planning documents and relevant considerations for EIR analysis of Plan consistency. These include:

- Oakland General Plan Elements
  - Land Use and Transportation Element (LUTE) (adopted 3/98; text amended 12/99 and 6/05; check with City for latest land use map)
  - Estuary Policy Plan (EPP) (adopted 6/99; amended 6/06)
  - Open Space, Conservation and Recreation (OSCAR) (adopted 6/96)
  - Historic Preservation Element (HPE) (adopted 3/94; amended 7/98 and 1/07)
  - Bicycle Master Plan (updated and adopted 12/07 as part of LUTE)
  - Pedestrian Master Plan (adopted 11/02 as part of LUTE)
  - Housing Element (adopted 12/10)
  - Noise Element (adopted 6/05)
  - Safety Element (adopted 11/04)
  - Scenic Highways (adopted 9/74)
- Other Plans, Documents, and Planning Studies
  - Oakland Policy Plan (adopted 9/74; amended by LUTE to combine all remaining policies into a "Governance Document;" the Governance Document has not been issued but the goals/policies are listed in the LUTE as part of the amendments)
  - Guidelines for Determining Project Conformity with the General Plan and Zoning Regulations (adopted 5/98; amended 11/99, 8/01, 12/01, 7/03, and 10/06) (**NOTE:** Contains a helpful list of major general plan policies)
  - LUTE Technical Appendix
- Redevelopment Plans (recently amended)
  - Central District
  - Central City East

City of Oakland General Plan

The City of Oakland General Plan outlines a vision for Oakland's long-range development and growth. The General Plan provides policies and actions that will allow this vision to be accomplished. The General Plan includes the following elements: Land Use and Transportation; Open Space, Conservation, and Recreation; Historic Preservation; Noise; Safety; and Housing.

General Plan Land Use Classifications

The majority of the Planning Area is designated as the Central Business District (CBD). The Central Business District 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, commercial, urban (high-rise) residential, institutional, open space, cultural, educational, arts, entertainment, service, community facilities, and visitor uses. Parks in the area are designated as Open Space while the Oakland Museum, Kaiser Auditorium, Laney College, and the Oakland Unified School District's Downtown Campus are designated as Institutional. The Eastlake Gateway area is designated as Urban Residential. The Peralta Community College District Administration site is designated as Business Mix. General Plan land use classifications are shown in **Figure 2.4-1** in Chapter 2, and described in **Table 3.1-2**.

The portion of the Planning Area west of I-880 is covered by the Estuary Policy Plan, which designates land uses as Mixed Use District, with the Oak to Ninth project designated as Planned Waterfront Development. The Estuary Policy Plan is covered further below.

Table 3.1-2: The Existing General Plan Land Use Classifications in the Planning Area

Classification	*Intent*	*Desired Character*
Urban Residential	Create, maintain, and enhance areas of the City that are appropriate for multi-unit, mid-rise or high-rise residential structures in locations with good access to transportation and other services.	Residential, mixed-use buildings with ground floor commercial uses and public facilities of compatible character are also encouraged.
Housing and Business Mix	Recognizes the equal importance of both housing and business. Guides a transition from heavy industry to low impact light industrial and other businesses that can co-exist compatibly with residential development. Respect for environmental quality, coupled with opportunities for additional housing and neighborhood-friendly businesses is desired, as well as the transition from industry that generates impacts detrimental to residences.	Housing, "live-work," and low impact businesses, including light industrial, commercial, and service businesses, compatible community facilities.
Central Business District	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.	Office, retail, urban (high rise) residential, institutional, open space, cultural facilities, educational, arts, entertainment, service, community facilities, and visitor uses.
Business Mix	Create, preserve, and enhance areas of the City that are appropriate for a wide variety of business and related commercial and industrial establishments. High impact industrial uses including those that have hazardous materials on-site may be allowed provided they are adequately buffered from residential areas. High impact or large-scale commercial retail uses should be limited to sites with direct access to the regional transportation system.	Light industry, research and development, low-impact manufacturing, food processing, environmental technology, business and health services, warehouse and distribution facilities, office, uses of similar business character.
Institutional	Create, maintain, and enhance areas appropriate for educational facilities, cultural and institutional uses, health services and medical uses as well as other uses of similar character.	Educational and cultural facilities, institutions, health services and medical facilities.
Urban Park and Open Space	Identify, enhance, and maintain land for parks and open space. Maintain an urban park, schoolyard, and garden system which provide open space for outdoor recreation, psychological and physical well-being, and relief from the urban environment.	Active and passive recreation, including parks, schoolyards, cemeteries, and active outdoor recreation spaces.

Source: City of Oakland General Plan LUTE, 1998.

Land Use and Transportation Element (1998)

The General Plan's Land Use and Transportation Element identifies five focus areas: industry and commerce, transportation and transit oriented development, downtown, waterfront, and neighborhoods. Goals related to transportation and transit oriented development are particularly relevant for the Lake Merritt Station Area Plan. They include:

- Capitalize on our location as a major West Coast transportation hub.
- Integrate land use and transportation planning at the neighborhood, city and regional levels.
- Reduce congestion and improve traffic flow.
- Promote alternatives modes of transportation options.
- Find funding for needed transportation facilities and services, and related investments.
- Improve the environment, including improving air quality and reducing exposure to traffic noise.

Key policies regarding transportation and land use planning aim to provide mixed use, Transit-Oriented Development that encourages public transit use and increases pedestrian and bicycle trips at major transportation nodes.

The section focusing on Downtown specifically identifies planning policies for the Planning Area:

- Planning for Chinatown: The unique character of Chinatown, as a center for Asian-American culture, a regional destination point, and a district with a mixed housing type residential component, should be supported and encouraged.
- Planning for the Channel Park Arts, Educational, and Cultural Center: The area south of Lake Merritt that includes Laney College, the Henry J. Kaiser Auditorium, the Oakland Museum, and Alameda Country offices should be enhanced as a walkable, bicycle-friendly educational, cultural and institutional center in downtown Oakland. Efforts to strengthen this area's identity and create transportation linkages with the Jack London Waterfront, City Center, and the Financial District, and BART should be promoted.
- Planning for the Channel Park Residential Area: The area between the Channel Park Arts, Educational, and Cultural Center and the waterfront should be developed as a walkable urban residential district, incorporating commercial development and open space as appropriate to take advantage of the cultural and recreational amenities.

Industry and Commerce Policies

Objective I/C1: Expand and retain Oakland's job base and economic strength.

Objective I/C3: Ensure that Oakland is adequately served by a wide variety of commercial uses, appropriately sited to provide for competitive retail merchandising and diversified office uses, as well as personal and professional services.

Transportation and Transit-Oriented Development Policies

Objective T2: Provide mixed use, Transit-Oriented Development that encourages public transit use and increases pedestrian and bicycle trips at major transportation nodes.

Policy T2.1: 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.

Lake Merritt BART Station: The Lake Merritt BART station serves a concentration of government offices, cultural, and institutional users—Laney College, the Oakland Museum, Henry J. Kaiser Auditorium, BART and MetroCenter offices, as well as nearby Chinatown destinations. In 1997 there are few development sites near the station, but intensification of activities would be welcome and consistent with the objectives of the General Plan. The Laney College parking lot offers a potential development site that might help to create a Transit Oriented District at Channel Park, as described in the Policy Framework for Downtown.

Policy T2.5: 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).

Objective T3: Provide a hierarchical network of roads that reflects desired land use patterns and strives for acceptable levels of service at intersections.

Objective T4: Increase use of alternatives modes of transportation.

Policy T4.1: Incorporating Design Features for Alternative Travel. The City will require new development, rebuilding, or retrofit to incorporate design features in their projects that encourage use of alternative modes of transportation such as transit, bicycling, and walking.

Objective T6: Make streets safe, pedestrian accessible, and attractive.

Objective T7: Reduce air pollutants caused by vehicles.

Downtown Policies

Objective D1: Enhance the identity of Downtown Oakland and its distinctive districts.

Objective D2: Enhance the visual quality of downtown by preserving and improving existing housing stock and encouraging new, high quality, development.

Objective D3: Create a Pedestrian-friendly downtown.

Objective D4: Increase the economic vitality of downtown.

Objective D5: Enhance the safety and perception of safety downtown at all hours.

Objective D9: Emphasize the establishment, promotion, and retention of commercial businesses that serve the needs of downtown workers and residents.

Objective D10: Maximize housing opportunities in the downtown to create a better sense of community.

Policy D10.1: Encouraging Housing. Housing in the downtown should be encouraged as a vital component of a 24-hour community presence.

Policy D10.2: Locating Housing. Housing in the downtown should be encouraged in identifiable districts, within walking distance of the 12th Street, 19th Street, City Center, and Lake Merritt BART stations to encourage transit use, and in other locations where compatible with surrounding uses.

Policy D10.3: Framework for Housing Densities. Downtown residential areas should generally be within the Urban Density Residential and Central Business District density range where not otherwise specified. The height and bulk should reflect existing and desired district character, the overall city skyline, and the existence of historic structures or areas.

Policy D10.4: Providing Housing for a Range of Needs. 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.

Policy D10.5: Designing Housing. Housing in the downtown should be safe and attractive, of high quality design, and respect the downtown's distinct neighborhoods and its history.

Policy D10.6: Creating Infill Housing. Infill housing that respects surrounding development and the streetscape should be encouraged in the downtown to strengthen or create distinct districts.

Objective D11: Foster mixed use developments to help create a diverse, lively, and vibrant downtown.

Policy D11.1: Promoting Mixed-Use Development. Mixed use developments should be encouraged in the downtown for such purposes as to promote its diverse character, provided for needed goods and services, support local art and culture, and give incentive to reuse existing vacant or underutilized structures.

Objective D12: Make downtown Oakland a regional destination for innovative learning programs, cultural resources, art, and entertainment.

Objective D13: Create and coordinate a well-balanced regional and local transportation system to serve the downtown.

Neighborhoods Policies

Objective N1: Provide for healthy, vital, and accessible commercial areas that help meet local consumer needs in the neighborhoods.

Objective N2: Encourage adequate civic, institutional, and educational facilities located within Oakland, appropriately designed and sited to serve the community.

Objective N3: Encourage the construction, conservation, and enhancement of housing resources to meet the current and future needs of the Oakland community.

Policy N3.1: Facilitating Housing Construction. Facilitating the construction of housing units should be considered a high priority for the City of Oakland.

Policy N3.2: 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.

Policy N3.5: Encouraging Housing Development. The City should actively encourage development of housing in designated mixed housing type and urban housing areas through regulatory and fiscal incentives, assistance in identifying parcels that are appropriate for new development, and other measures.

Policy N3.8: Required High-Quality Design. High-quality design standards should be required of all new residential construction. Design requirements and permitting procedures should be developed and implemented in a manner that is sensitive to the added costs of those requirements and procedures.

Objective N4: Actively encourage the provision of affordable housing throughout the Bay Area.

Policy N5.1: Environmental Justice. The City is committed to the identification of issues related to the consequences of development on racial, ethnic, and disadvantaged socio-economic groups. The City will encourage active participation of all its communities, and will make efforts to inform and involve groups concerned about environmental justice and representatives of communities most impacted by environmental hazards in the early stages of the planning and development process through notification and two-way communication.

Policy N5.2: Buffering Residential Uses. 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.

Objective N6: Encourage a mix of housing costs, unit sizes, types, and ownership structures.

Policy N6.1: Mixing Housing Types. The City will generally be supportive of a mix of projects that provide a variety of housing types, unit sizes and lot sizes which are available to households with a range of incomes.

Objective N8: Direct urban density and mixed use housing development to locate near transit or commercial corridors, transit stations, the Downtown, waterfront, underutilized properties where residential uses do not presently exist but may be appropriate,

areas where this type of development already exists and is compatible with desired neighborhood character, and other suitable locations.

Policy N8.2: **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.

Policy N9.9: **Respecting Architectural Integrity.** The City encourages efforts which respect the architectural integrity of a building's original style (see the Historic Preservation Element for more information).

Objective N10: Support and create social, informational, cultural, and active economic centers in the neighborhoods.

Objective N11: Provide adequate infrastructure to meet the needs of Oakland's growing community.

Historic Preservation Element (1994)

The General Plan's strategy to promote preservation of a wide range of significant older properties and districts in a manner that is consistent with other City goals and objectives. The element includes a listing of potential designated historic properties, designated historic properties, preservation incentives and regulations, clear permit approval findings for landmarks and preservation districts, a strategy for integrating historic preservation into ongoing City activities, a study of archeological resources, and a chapter on information and education.

Policies

Objective 2: **Preservation Incentives and Regulations.**

Policy 2.1: **Preservation Incentives and Regulations for Designated Historic Properties.** The City will use a combination of incentives and regulations to encourage preservation of significant older properties and areas which have been designated as Landmarks, Preservation Districts, or Heritage Properties.

Policy 2.6: **Preservation Incentives.**

- Landmarks and all properties contributing or potentially contributing to a Preservation District will be eligible for the following preservation incentives:
  - Mills Act contracts for reducing property tax assessments;
  - State Historical Building Code and other related alternative codes for older buildings;
  - Conservation easements to reduce property tax assessments and, for National Register properties, to obtain income tax deductions;
  - Broader range of permitted or conditionally permitted uses;

  - Transferable development rights;
  - Priority for economic development and community development project assistance and eligibility for possible historic preservation grants for low-income housing;
  - Eligibility for acquisition, rehabilitation, and other development assistance from a possible historic preservation revolving fund or possible Marks historical rehabilitation bond program; and
  - Fee waivers or reductions for City permits for demolition, new construction, or alterations.
- Compatible new development on vacant noncontributing Preservation District parcels will be eligible for Incentives (iv), (v), (vi) and (vii).

Objective 3: Historic Preservation and Ongoing City Activities.

Policy 3.1: Avoid or Minimize Adverse Historic Preservation Impacts Related to Discretionary City Actions.

Policy 3.5: **Historic Preservation and Discretionary Permit Approvals.** For additions or alteration to Heritage Properties or Potential Designated Historic Properties requiring discretionary City permits, the City will make a finding that (1) the design matches or is compatible with, but not necessarily identical to, the property's existing or historical design; or (2) the proposed design comprehensively modifies and is at least equal in quality to the existing design and is compatible with the character of the neighborhood; 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 3.6: **Historic Preservation and City-Sponsored or Assisted Projects.** To the extent consistent with other Oakland General Plan provisions, City-sponsored or assisted projects involving an existing or Potential Designated Historic Property, except small-scale projects, will:

- Be selected and designed to avoid or minimize adverse effects;
- Incorporate preservation efforts based in part on the importance of each property; and
- Be considered to have no adverse effects on these properties if they conform with the Secretary of the Interior's Standards for the Treatment of Historic Properties.

Policy 3.9: **Consistency of Zoning with Existing or Eligible Preservation Districts.**

- Unless necessary to achieve some other Oakland General Plan goal or policy which is of greater significance, the base zone of existing or eligible Preservation Districts shall not encourage demolition or removal of a district's contributing or potentially contributing properties nor encourage new construction that is incompatible with these properties.

The City will always consider including a historic preservation component in areawide or specific plans.

Housing Element (2010)

California requires each city and county to adopt a housing element that contains an assessment of housing needs, an inventory of resources and constraints that affect the ability to meet those needs, a statement of the community's goals, policies and objectives for housing, an inventory of developable sites, and a set of action items. The City of Oakland's current General Plan Housing Element, adopted in 2010, covers the period from 2007 to 2014.

As part of the Housing Element process, the California Department of Housing and Community Development determines the amount of housing needed for income groups in each region based on existing housing need and expected population growth. Each city's share of the regional housing demand is prepared by the Association of Bay Area Governments (ABAG) through the Regional Housing Needs Allocation (RHNA) process. During the planning period 2007-2014, the City of Oakland's housing goal is to accommodate 14,629 new housing units (27 percent of these units are designated to be affordable to very low- and low-income households, 21 percent affordable to moderate income and 51 percent above moderate income). However, these goals were adopted before the elimination of Redevelopment in California, a key source of income for affordable housing.

The City's commitment to providing affordable housing is set out in the following goals from the Housing Element. Each goal is supported by specific policies and actions.

- Goal 1: Provide Adequate Sites Suitable for Housing for All Income Groups
- Goal 2: Promote the Development of Adequate Housing for Low- and Moderate-Income Households
- Goal 3: Remove Constraints to the Availability and Affordability of Housing for All Income Groups
- Goal 4: Conserve and Improve Older Housing and Neighborhoods
- Goal 5: Preserve Affordable Rental Housing
- Goal 6: Promote Equal Housing Opportunity
- Goal 7: Promote Sustainable Development and Sustainable Communities

Policies

Policy 4.3 **Housing Preservation and Rehabilitation.** Support the preservation and rehabilitation of existing housing stock with an emphasis on housing occupied by senior citizens, people with disabilities, and low-income populations. Encourage the relocation of structurally sound housing units scheduled for demolition to compatible neighborhoods when appropriate land can be found. Assist senior citizen and people with disabilities with housing rehabilitation so that they may remain in their homes. Continue to implement the two-year Mills Act program.

Policy 5.1 **Preservation of At-Risk Housing.** Seek to preserve the affordability of subsidized rental housing for lower-income households that may be at-risk of converting to market rate housing.

Policy 5.5 **Limitations on the Conversion of Residential Property to Non-Residential Use.** Continue to use regulatory controls to limit the loss of housing units due to their conversion to non-residential use.

Action 5.5.1 **Residential Property Conversion Ordinance.** Continue to require a Conditional Use Permit prior to converting a residential use to a nonresidential use in a non-residential zone. The City will review existing conditional use permit requirements to determine if revisions to the process are needed to reduce the potential for conversion of residential uses.

Open Space, Conservation, and Recreation Element (1996)

The General Plan's Open Space, Conservation, and Recreation (OSCAR) Element is the primary policy document for parks, conservation, and open space planning in Oakland. Overall goals for open space include providing a citywide open space system accessible to every Oakland resident, and an attractive, accessible shoreline and creek system that complements the City's parks and open spaces. The Conservation component of the chapter covers issues including conservation of soils, protection of archaeological resources, water conservation, water quality improvement, conservation of natural vegetation and wild areas, and air quality improvement by establishing transportation, land use, and site planning practices that reduce driving and energy consumption. Finally, the recreation component of the Element seeks to ensure that diverse recreational needs are met, that parks are well designed to support a variety of compatible activities, that park deficiencies are addressed, and that recreational programs serve all communities equitably. The OSCAR is covered in more detail in section 3.5: Parks and Recreation.

Policies

Objective OS-2: Urban Parks, Schoolyards, and Gardens.

Policy OS 2.2: **Schoolyard Enhancement.** Enhance the availability and usefulness of Oakland's schoolyards and athletic fields as open space resources.

Policy OS 2.6: **Street Closures for Parks, Plazas and Gardens.** Where there is broad community and local support and where legally permissible, allow local street closures as a way of creating new parks, plazas, and garden sites in urban neighborhoods.

Policy OS-3.6: **Open Space Buffers along Freeways.** Maintain existing open space buffers along Oakland's freeways to absorb noise and emissions and enhance the scenic quality of the roadways. Manage steeply sloping or wooded parcels adjacent to highways owned by the State of California (Caltrans) to conserve natural resources and protect open space. Where compatible with adjacent land uses, support the use of land along, under, or over freeways in urban settings for greenbelts, recreational, public art, or other activities which enhance the usefulness and appearance of such land.

Objective OS-7: Shoreline Access.

Policy OS 7.5: **Lateral Access and Links to the Flatlands.** Improve lateral access along the Oakland shoreline and linkages between the shoreline and nearby neighborhoods...[including] a connection between Estuary Park and the linear park along Lake Merritt Channel... The

connection requires a bridge spanning two sets of railroad tracks between I-880 and the Embarcadero.

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 Skyline Boulevard, Grizzly Peak Road, and other hillside locations.

Policy OS-10.2: Minimizing Adverse Visual Impacts. Encourage site planning for new development that minimizes adverse visual impacts and takes advantage of opportunities for new vistas and scenic enhancement.

Objective OS-11: Civic Open Space.

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.

Policy OS 11.1.2: Downtown Open Space Requirements and Bonuses. Study the feasibility of (a) useable open space requirements for downtown commercial development (or an in-lieu fee for downtown open space); and (b) density bonuses for developers providing plazas, rooftop gardens, and other amenities within new development projects.

Policy OS 11.1.3: 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 CO-1.1: Soil Loss in New Development. Regulate development in a manner which protects soil from degradation and misuse or other activities which significantly reduce its ability to support plant and animal life. Design all construction to ensure that soil is well secured so that unnecessary erosion, siltation of streams, and sedimentation of water bodies do not occur.

Policy CO-1.2: Soil Contamination Hazards. Minimize hazards associated with soil contamination through the appropriate storage and disposal of toxic substances, monitoring of dredging activities, and cleanup of contaminated sites. In this regard, require soil testing for development of any site (or dedication of any parkland or community garden) where contamination is suspected due to prior activities on the site.

Policy CO-4.2: Drought-Tolerant Landscaping. Require the use of drought-tolerant plants to the greatest extent possible and encourage the use of irrigation systems which minimize water consumption.

Policy CO-5.1: Protection of Groundwater Recharge. Encourage groundwater recharge by protecting large open space areas, maintaining setbacks along creeks and other recharge features, limiting impervious surfaces where appropriate, and retaining natural drainage patterns within newly developing areas.

Policy CO-5.3: Control of Urban Runoff. Employ a broad range of strategies, compatible with the Alameda Countywide Clean Water Program, to: (a) reduce water pollution associated with stormwater runoff; (b) reduce water pollution associated with hazardous spills, runoff from hazardous material areas, improper disposal of household hazardous wastes, illicit dumping, and marina "live-aboards;" and (c) improve water quality in Lake Merritt to enhance the lake's aesthetic, recreational, and ecological functions.

Policy CO-6.4: Lake Management. Manage Oakland's lakes to take advantage of their recreational and aesthetic potential while conserving their ecological functions and resource value. Discourage new recreational uses which impair the ability of the lakes to support fish and wildlife. Support improvements which enhance water circulation, water quality, and habitat value, provided they are cost-effective and are compatible with established recreational activities.

Policy CO-6.5: Protection of Bay and Estuary Waters. Protect the surface waters of the San Francisco Estuary system, including San Francisco Bay, San Leandro Bay, and the Oakland Estuary. Discourage shoreline activities that negatively impact marine life in the water and marshland areas.

Policy CO-7.4: Tree Removal. Discourage the removal of large trees on already developed sites unless removal is required for biological, public safety, or public works reasons.

Policy CO-8.1: Mitigation of Development Impacts. Work with federal, state, and regional agencies on an ongoing basis to determine mitigation measures for development which could potentially impact wetlands. Strongly discourage development with unmitigable adverse impacts.

Policy CO-9.1: Habitat Protection. Protect rare, endangered, and threatened species by conserving and enhancing their habitat and requiring mitigation of potential adverse impacts when development occurs within habitat areas.

Policy CO-11.2: Migratory Corridors. Protect and enhance migratory corridors for wildlife. Where such corridors are privately owned, require new development to retain native habitats or take other measures which help sustain local wildlife populations and migratory patterns.

Policy CO-12.1: Land Use Patterns Which Promote Air Quality. Promote land use patterns and densities which help to improve regional air quality conditions by: (a) minimizing dependence on single passenger autos; (b) promoting projects which minimize quick auto starts and stops, such as live-work development, mixed use development, and office development with ground floor retail space; (c) separating land uses which are sensitive to pollution from the sources of air pollution; and (d) supporting telecommuting, flexible work hours, and behavioral changes which reduce the percentage of people in Oakland who must drive to work on a daily basis.

Policy CO-12.4: Design of Development to Minimize Air Quality Impacts. Require that development projects be designed in a manner which reduces potential adverse air quality impacts. This may include: (a) the use of vegetation and landscaping to absorb carbon monoxide

and to buffer sensitive receptors; (b) the use of low-polluting energy sources and energy conservation measures; (c) designs which encourage transit use and facilitate bicycle and pedestrian travel.

Policy CO-12.6: Control of Dust Emissions. Require construction, demolition and grading practices that minimize dust emissions.

Objective REC-2: Park Design and Compatibility of Uses.

Policy REC 2.2: Conflicts Between Park Uses. Site park activities and facilities in a manner which minimizes conflict between park users.

Policy REC-2.3: Environmentally Sensitive Design. Protect sensitive natural areas within parks, including creeks and woodlands, and integrate them into park design. Require new recreational facilities to respect existing park character, be compatible with the natural environment, and achieve a high standard of design quality.

Policy REC-2.4: Off-site Conflicts. Manage park facilities and activities in a manner which minimizes negative impacts on adjacent residential, commercial or industrial areas.

Policy REC-2.5: Park Visibility. Plan and design parks in a way which maximizes their visibility, while minimizing conflicts between pedestrians, bicyclists and automobiles.

Policy REC-2.6: Historic Park Features. Respect historic park features when designing park improvements or programming new park activities.

Objective REC-4: Maintenance and Rehabilitation.

Policy REC-4.2: Environmental Responsibility. Encourage maintenance practices which conserve energy and water, promote recycling, and minimize harmful side effects on the environment. Ensure that any application of chemical pesticides and herbicides is managed to avoid pollution of ground and surface waters.

Policy REC 4.3: Renovation and Rehabilitation Priorities. Where cost savings and equivalent benefits would be achieved, renovate and rehabilitate existing facilities before building new facilities.

Objective REC-5: Park Safety.

Policy REC 5.1: Increased Range of Activities. Provide an increased range of activities within Oakland's parks as a means of introducing new users to the parks and improving safety through numbers.

Policy REC-5.2: Safety-Oriented Design. Use a wide range of physical design solutions to improve safety at Oakland's parks, including lighting, signage, landscape design, fencing, vandal-resistant building materials, and emergency response features.

Objective REC-6: Joint Use of Recreational Facilities.

Policy REC 6.1: Joint Use Agreements. Promote joint use agreements between the City, the Oakland Unified School District, and other public agencies to maximize the use of school and other non-park recreational facilities during non-school hours.

Policy REC 6.2: Public-Private Partnerships. Encourage "public-private partnerships" as a means of providing new recreational facilities on privately-owned sites.

Objective REC-7: Recreational Programs.

Policy REC 7.5: Multi-Culturalism. Design recreational services which respond to the many cultures, ethnic groups, and language groups represented in Oakland. Design recreational programs to reflect the specific needs of Oakland neighborhoods and the values and priorities of local residents.

Objective REC-10: Funding.

Policy REC 10.2: Parkland Dedication and Impact Fee. To the extent permitted by law, require recreational needs created by future growth to be offset by resources contributed by that growth.

Noise Element (2005)

As required by State law, the General Plan's Noise Element analyzes and quantifies current and projected future noise levels from major sources, in particular roadways, railroads, airports, and industrial facilities. The community noise environment, as modeled in the Noise Element, is an important consideration for planned land use patterns. Policies focus on minimizing noise impacts, particularly on sensitive receptors, by working to ensure land use compatibility, controlling noise sources, and maintaining high standards for noise insulation.

Policies

Policy 1: Ensure the compatibility of existing and, especially, of proposed development projects not only with neighboring land uses but also with their surrounding noise environment.

Policy 2: Protect the noise environment by controlling the generation of noise by both stationary and mobile noise sources.

Policy 3: Reduce the community's exposure to noise by minimizing the noise levels that are received by Oakland residents and others in the City.

Safety Element (2004)

The Safety Element also is a required part of General Plans. It seeks to analyze the characteristics of Oakland's range of natural hazards, including geologic, flooding, and fire hazards, as well as manmade hazards (hazardous materials) and public safety services. The Safety Element establishes City policy in protecting residents through such measures as emergency planning, building code enforcement, identification and protection of critical infrastructure, enhancement of stormwater infrastructure, and application of stormwater management requirements.

Policies

Policy PS-1: Maintain and enhance the city's capacity to prepare for, mitigate, respond to, and recover from disasters and emergencies.

Policy GE-1: Develop and continue to enforce and carry out regulations and programs to reduce seismic hazards and hazards from seismically triggered phenomena.

Policy GE-2: Continue to enforce ordinances and implement programs that seek specifically to reduce the landslide and erosion hazards.

Policy GE-3: Continue, enhance or develop regulations and programs designed to minimize seismically related structural hazards from new and existing buildings.

Policy GE-4: Work to reduce potential damage from earthquakes to "lifeline" utility and transportation systems.

Policy HM-1: Minimize the potential risks to human and environmental health and safety associated with past and present use, handling, storage and disposal of hazardous materials.

Policy HM-2: Reduce the public's exposure to toxic air contaminants through appropriate land use and transportation strategies.

Policy FL-1: Enforce and update local ordinances, and comply with regional orders that would reduce the risk of storm-induced flooding.

Policy FL-2: Continue or strengthen city programs that seek to minimize the storm-induced flooding hazard.

Scenic Highways Element (1974)

The General Plan's Scenic Highways Element, from 1974, is intended to protect the visual quality of specific roadways and the corridors around them. The Element identifies two scenic routes—the MacArthur Freeway, and Skyline Boulevard/Grizzly Peak Boulevard/Tunnel Road—and The Element leaves open the possibility of protecting additional routes in the future.

Oakland Estuary Policy Plan (1999)

The General Plan's Estuary Policy Plan was prepared to address issues of continuity and accessibility of the shoreline, the quality and character of new development, and the relationship of the shoreline with surrounding districts and neighborhoods. More specifically, the Plan builds upon the goals for the waterfront in the General Plan.

The Estuary Policy Plan presents recommendations related to land use, development, urban design, shoreline access, public spaces, regional circulation, and local street improvements for the entire waterfront and individual districts within it. The land use provisions, densities, and other policies are extremely specific. **Table 3.1-3** identifies Estuary Plan land use classifications that apply in portions of the Planning Area. Existing and proposed Estuary Plan land use is shown on **Figure 2.4-1** in Chapter 2.

Table 3.1-3: Estuary Policy Plan Land Use Classifications in the Planning Area

Classification	*Intent*	*Desired Character*
Mixed Use District	Encourage the development of nontraditional higher density housing (work/live lofts, artist studios) within a context of commercial and light industrial/manufacturing uses.	Future development in this area should be primarily light industrial, warehousing, wholesale, retail, restaurant, office, residential, work/live, lofts units, parks, and public open spaces with manufacturing, assembly, and other uses that are compatible with adjacent uses.
Parks	n/a	n/a
Planned Waterfront Development 1	Provide for the transformation of maritime and marine industrial uses into a public-oriented waterfront district that encourages significant public access and open space opportunities. Encourage a unique mix of light industrial manufacturing, artist lofts and workshops, hotel, commercial-recreation, cultural uses, and water-oriented uses that complement the recreational and open space character of the waterfront.	Future development in this area should be primarily public recreational uses including boating clubs, community and cultural uses, parks, and public open spaces; with primary uses including light industrial, manufacturing, assembly, artist workshops, cultural, work/live studios, office, neighborhood commercial, and restaurants; and including hotel, conference, restaurant, commercial- recreational, and cultural. Water uses also included.
Waterfront Mixed Use	Allow for a mixture of uses that complement the waterfront setting, and maintain and enhance views and public access to the waterfront.	Future development of this area should be primarily residential, office, retail, restaurants, parks, and public open spaces. Water uses also included.
Waterfront Warehouse District	Encourage the preservation and adaptive reuse of existing buildings and new infill development that preserve and respect the area's unique character and historic flavor, within a context of commercial and light industrial/manufacturing uses.	Future development in this area should be primarily joint living and working quarters, residential, light industrial, warehousing, wholesale, office, artist/artisans studios, neighborhood serving commercial uses, including local small-scale restaurants with manufacturing, assembly, and other uses that are compatible with adjacent uses.

Source: City of Oakland Estuary Policy Plan, 1999.

The Plan seeks to connect the waterfront (physically and economically) to downtown Oakland; increase public access to the shoreline; provide a public open space and pedestrian linkage along Lake Merritt Channel between Estuary Park and Lake Merritt; simplify and enhance freeway access to and through the area by consolidating freeway ramps and linking them to major thoroughfares; promote transit service to and along the waterfront (such as with a trolley line along the Broadway spine, connecting Jack London Square with the City Center); and improve pedestrian and bicycle circulation.

Policies

Objective SA-2: Punctuate the Estuary shoreline promenade with a series of parks and larger open spaces.

Objective SA-5: Enhance natural areas along the shoreline. There are significant opportunities along the Estuary shoreline and Lake Merritt Channel to enhance remnant tidal marshes and other natural areas.

Some of this is part of the current Measure DD projects, such as a new tidal wetland being created between 10th and 12th Street on the west side of the Channel.

OAK-1.1: **Encourage the preservation and enhancement of wetland areas.** The waterfront should be improved in a manner that maintains and enhances the ecological value of the area in general and the Lake Merritt Channel in particular. In some locations, tidelands function as tidal wetlands, providing marsh habitat for fish, migratory waterfowl, and other animals. Improvements should be encouraged that restore wetland and marsh habitat. Wetlands should be protected by such treatments as setting back trails from the shoreline, installing suitable buffer planting to prevent disruption nesting and resting areas, seasonal routing of pedestrians to avoid sensitive habitats, etc. As improvements and projects are considered, the City and Port should work with interested groups and organizations to ensure appropriate treatments along the shoreline, particularly along the channel on the eastern bank between I-880 and Embarcadero.

OAK-1.3: **Undertake remediation of contaminants in conjunction with development and/or improvement of relevant sites.** Typical of many waterfront areas that have historically been in intensive industrial use, contamination has been documented within this district. It will be a consideration in redevelopment of the sites identified. To date, parties have undertaken initial efforts to characterize surface soil, subsurface soil and groundwater within the Oak to 9th Street area. Further investigations should be undertaken to more accurately characterize contamination, and to determine the most appropriate and cost-effective remediation methods that can achieve reuse objectives for this area in a timely and coordinated fashion. The level and type of soil and groundwater cleanup should be commensurate with the recommended re-use of the affected sites.

OAK-2.1: **Expand Estuary Park.** Encourage aquatic sports within the mouth of Lake Merritt Channel.

OAK-2.2: **Create a major new park on the east side of the mouth of the Lake Merritt Channel, at the Estuary.**

OAK-3: Link the Estuary to Lake Merritt by enhancing the Lake Merritt Channel.

OAK-3.1: Create a system of public open spaces that connects Lake Merritt Channel to the Estuary.

OAK-3.2: Work with public agencies in the area to extend the open space system inland from the Channel.

This applies to the new four-acre park being built as part of the 12th Street reconstruction. This also encourages the creation of public open spaces along the edges of the Channel itself, and describes the need to create a bicycle and pedestrian overpass between Estuary Park and the Channel shoreline to the north.

Pedestrian Master Plan (2002)

The General Plan's Pedestrian Master Plan was adopted in November 2002, opening with the following vision statement: "To promote a pedestrian friendly environment; where public spaces, including streets and off-street paths, will offer a level of convenience, safety and attractiveness to the pedestrian that will encourage and reward the choice to walk." The plan establishes routes, including streets, walkways, and trails that connect schools, libraries, parks, neighborhoods, and commercial districts throughout the city. Goals of the Master Plan include ensuring pedestrian safety, developing pedestrian access, provision of pedestrian amenities though streetscaping and land use, education, and implementation. Existing constraints on walking are identified as pedestrian/motor vehicle conflicts on busy streets and freeways as physical barriers.

Bicycle Master Plan (2007)

The General Plan's Bicycle Master Plan is the citywide, long-range policy document for promoting bicycling in Oakland. The Plan includes existing conditions, policy recommendations, recommendations for bikeways and support facilities, and an implementation program.

Oakland Policy Plan

The Policy Plan, adopted in 1974, was amended by the Land Use and Transportation Element (LUTE) to combine all remaining policies into a "Governance Document." The Governance Document has not been issued but the goals and policies are listed in the LUTE as part of the amendments.

Zoning

To implement the Oakland General Plan, the Central Business District was rezoned to be consistent with the new floor area ratio and other General Plan policies. The Central Business District (CBD) rezoning was completed in July of 2009. It split regulations for the CBD into three main parts: (1) new zoning designations that contain use and associated design regulations; (2) height, bulk, and intensity regulations; and (3) other design-related regulations for new construction. There are four zones which primarily regulate allowable use and facility type, and seven Bulk/Intensity Areas.

The Planning Area also includes residential, civic, industrial, and open space zones that are found citywide, as well as two combining districts with special requirements for design review or to protect

public health and safety. Zoning Land Use Districts in the Planning Area are described in **Table 3.1-4**. Zoning districts and height areas are shown in **Figures 2.4-2** and **2.4-4** in Chapter 2.

Table 3.1-4: Existing Zoning in the Planning Area

Zoning District	*District Name*	*Intent*	*Allowable Uses*
CBD-C	Central Business District General Commercial	Create, maintain, and enhance areas of the CBD appropriate for a wide range of ground-floor office and other commercial activities. Upper-story spaces are intended to be available for a wide range of residential and office or other commercial activities.	Residential (not at ground floor), civic, various commercial
CBD-P	Central Business District Pedestrian Retail Commercial	Create, maintain, and enhance areas of the CBD for ground-level, pedestrian oriented, active storefront uses. Upper story spaces are intended to be available for a wide range of office and residential activities.	Residential (not at ground floor), civic (not at ground floor), various commercial (some not at ground floor)
CBD-P/CH	Central Business District Pedestrian Retail Commercial/Chinatown Interim Commercial Combining Zone	Allow for expanded commercial uses in the core of the Chinatown commercial area. When a base zone is combined with the CH combining zone, the permitted uses in CH combining zone supersede those of the base zone. These interim land use regulations anticipate the adoption of more comprehensive and detailed regulations for the entire area within the Lake Merritt Station Area Plan boundaries.	Residential (not at ground floor), civic, various commercial
CBD-R	Central Business District Residential	Create, maintain, and enhance areas of the CBD appropriate for residential development with small-scaled compatible ground-level commercial uses.	Residential, civic, various commercial (with limitations)
CBD-X	Central Business District Mixed Commercial	Designate areas of the CBD appropriate for a wide range of upper story and ground level residential, commercial, and compatible light industrial activity.	Residential, civic, various commercial
CIX-2	Commercial Industrial Mix 2	Create, preserve and enhance areas of the Central and Eastern portions of the City that are appropriate for a wide variety of heavy commercial and industrial establishments. Uses with greater off-site impacts may be permitted provided they meet specific performance standards and are buffered from residential areas.	Telecommunications, some commercial uses, industrial uses, general warehousing and storage
M-20	Light Industrial	Create, preserve, and enhance areas containing manufacturing and related establishments with limited external impact within an open and attractive setting, and is typically appropriate to locations adjacent to residential communities.	Civic, commercial, industrial

Table 3.1-4: Existing Zoning in the Planning Area

Zoning District	*District Name*	*Intent*	*Allowable Uses*
M-40	Heavy Industrial	Create, preserve, and enhance areas containing manufacturing or related establishments which are potentially incompatible with most other establishments, and is typically appropriate to areas which are distant from residential areas and which have extensive rail or shipping facilities.	Civic, commercial, industrial, plant nursery, crop and animal raising
OS (LP)	Open Space Linear	Create, preserve, and enhance land for permanent open space to meet the active and passive recreational needs of residents and promote park uses which are compatible with surrounding land uses and the city's natural environment.	Accessory Activities
OS (NP)	Open Space Neighborhood	Same as above.	Accessory Activities
OS (RCA)	Open Space Resource Conservation	Same as above.	Accessory Activities
OS (RSP)	Open Space Region-Serving Park	Same as above.	Accessory Activities
OS (SU)	Open Space Special Use Park	Same as above.	Accessory Activities
RU-3	Urban Residential Zone - 3	Create, maintain, and enhance areas of the City that are appropriate for multi-unit, low-rise or mid-rise residential structures at somewhat higher densities than RU-2, and neighborhood businesses where appropriate in locations with good access to transportation and other services.	Residential, civic
RU-5	Urban Residential Zone - 5.	Create, maintain, and enhance areas of the City that are appropriate for multi-unit, mid-rise, and high rise residential structures and ground floor neighborhood businesses on the City's major corridors.	Residential, civic
S-2	Civic Center Zone	Create, preserve, and enhance areas devoted primarily to major public and quasi-public facilities and auxiliary uses, and is typically appropriate to portions of the Oakland Central District and to outlying areas of public facilities.	Residential, civic, commercial

Table 3.1-4: Existing Zoning in the Planning Area

Zoning District	*District Name*	*Intent*	*Allowable Uses*
S-4	Design Review Combining Zone	Create, preserve, and enhance the visual harmony and attractiveness of areas which require special treatment and the consideration of relationships between facilities. Typically appropriate to areas of special community, historical, or visual significance. Supplementary to the regulations applying in the zones with which the S-4 zone is combined.	Based on primary zone
S-19	Health and Safety Protection Combining Zone	Promote public health, safety and welfare by ensuring that activities which use hazardous material substances or store hazardous materials, hazardous waste, or explosives locate in appropriate locations and develop in such a manner as not to be a serious threat to the environment, or to public health, particularly to residents living adjacent to industrial areas where these materials are commonly used, produced or found.	Based on primary zone

Source: Dyett & Bhatia, 2013; City of Oakland, 2013.

Guidelines for Determining Project Conformity with the General Plan and Zoning Regulations (1998)

One of the chief roles of the General Plan is to serve as a basis for more detailed land use regulations, which are primarily embodied in zoning—in Oakland's case, in the Planning Code. However, there are cases in which the Planning Code has not been updated since the adoption of the General Plan LUTE (1998) and the Estuary Policy Plan (1999). *The Guidelines for Determining Project Conformity* are intended to clarify the land use regulations that apply to land where the zoning regulations and the General Plan conflict. In short, when a conflict occurs between zoning and the General Plan, the General Plan governs. The Guidelines provide criteria to determine conformity with the General Plan and provide a helpful list of major General Plan policies.

Redevelopment Project Areas

The Planning Area falls entirely within two of the City's Redevelopment Project Areas: Central City East and the Central District. The plans for these project areas are described below, following a brief summary of the current status of Redevelopment in California.

Effect of State Legislation on Redevelopment Areas

In 2011, the California legislature approved a budget measure introduced by the Governor (and later validated by the State Supreme Court) that dissolved all Redevelopment Agencies in the state. Oakland's Redevelopment Agency (RDA) has been disbanded, staff redeployed or terminated, and assets have been transferred to the Redevelopment Successor Agency (RSA), which is charged with winding down the responsibilities of the former RDA and administering existing contracts; new contracts and funding related to redevelopment plans are not permitted. Although Redevelopment Agencies were eliminated by state legislation in 2011, there was no legislation that eliminated the Redevelopment Project Areas, or the many laws and regulations that had been passed over 40 years affecting Project Areas. The State legislation did not provide a mechanism to address how to handle policies, actions, and responsibilities assigned to the Redevelopment Agency, however.

At the time Redevelopment Agencies were terminated in 2011, both Project Areas covering the Planning Area were in compliance with the State Law requiring that 15 percent of new housing units built in a redevelopment project area be made affordable to low- and moderate-income households. It is uncertain whether the many regulations and laws governing redevelopment project areas, including the 15 percent "inclusionary" requirement, remain in affect following dissolution of the redevelopment agencies and the tax increment financing mechanisms previously charged with implementing those requirements.

Ellis Act Ordinance

Development by the private sector that requires demolition of rental housing is subject to the Ellis Act (Government Code Sections 7060-7060.7) and the City of Oakland's Ellis Act Ordinance (Oakland Municipal Code Sections 8.22.400-8.22.480). Under that Ordinance, any owner can withdraw property from the rental market by filing with the City's Rent Adjustment Program a series of documents called the "Withdrawal Notices," including notices of termination given to existing tenants. The withdrawal of the units is effective after 120 days or is extended to one year for tenants who are disabled or 62 years of age or older. Under the Ordinance, lower-income households are entitled to relocation assistance of two months' rent in effect at the time of the notice of termination, to mitigate the adverse impacts of

displacement. The Ordinance also gives the tenants the right to re-rent the withdrawn units should the units be re-offered for rent within 10 years.

In the case of owner-occupied housing that might be purchased and demolished for development, there are no filing or relocation procedures. The residents would receive the agreed-upon sales price for the housing, and would attempt to address relocation in the process of negotiating a sales price.

Central District Urban Renewal Plan

This plan covers the Central District Redevelopment Project Area and is generally bounded by the Embarcadero to the south, Fallon Street and Lake Merritt to the east, 28th Street and Bay Place to the north, and I-980 to the west. Much of the Planning Area falls within the Central District, excepting the BART blocks and areas east of Fallon Street including Laney College. The Central District plan defers to the land use designated in the General Plan, but does include policies related to affordable housing, housing replacement, and relocation of displaced persons that apply within the project area boundaries.

Due to the changes in Redevelopment law passed in 2011, Redevelopment agencies have been eliminated. However, Redevelopment Plans and other regulations have not been eliminated. Their applicability is unclear at the time of this writing.

Section 700: General Provisions

G. Replacement Housing and Inclusionary Housing Requirements: By law, the Agency, within four years of destruction or removal of dwelling units housing persons and families of low and moderate income as part of the redevelopment project, shall cause to be rehabilitated, developed or constructed a number of dwelling units equal to the number destroyed or removed which units shall be for sale to persons and families of low- and moderate-income at affordable housing costs. In addition, as to any areas added to the Project Area by amendment of this Plan adopted after January 1, 1976, at least 30 percent of all new or rehabilitated dwelling units developed by the Agency in the additional areas shall be available at affordable housing cost to persons and families of low- or moderate-income, with not less than 50 percent of these units made available at affordable housing cost to very low-income households, as required by Section 33413 (in particular, subdivision (b) of that section) of the Community Redevelopment Law. At least 15 percent of all new or rehabilitated dwelling units developed by public or private entities or persons other than the Agency in the additional areas shall be available at affordable housing cost to persons and families of low or moderate income, with not less than 40 percent of these units made available at affordable housing cost to very low income households, as required by Section 33413 (in particular, subdivision (b) of that section) of the Community Redevelopment Law. The requirements of this section shall apply in the aggregate, and not to each individual case of rehabilitation, development, or construction of dwelling units; however, the Agency in its discretion may impose inclusionary housing requirements on particular housing projects developed by public or private entities or persons other than the Agency in the additional areas, as needed in order for the Agency to comply with Section 33413 of the Community Redevelopment Law, this Plan, and the implementation plan adopted for the Project pursuant to Section 33490 of the Community Redevelopment Law.

H. Relocation: The Agency shall assist all persons (including individuals and families), business concerns and others displaced by the Project in finding other locations and facilities. In order to carry out the Plan with a minimum of hardship to persons (including individuals and families), business concerns and others, if any, displaced from their respective places of residence or business by the Project, the

Agency shall assist such persons (including individuals and families), business concerns and others in finding new locations that are decent, safe, sanitary, within their respective financial means, in reasonably convenient locations and otherwise suitable to their respective needs. The Agency may also provide housing inside or outside the Project Area for displaced persons.

The Agency shall make relocation payments to persons (including individuals and families), business concerns and others displaced by the Project for moving expenses and direct losses of personal property and additional relocation payments as may be required by law. Such relocation payments shall be made pursuant to the California Relocation Assistance Law (Government Code Section 7260 et seq.) and any Agency rules and regulations adopted pursuant thereto. The Agency may make such other payments as may be appropriate and for which funds are available.

Redevelopment Plan for the Central City East Redevelopment Project

This redevelopment area covers the portions of the Planning Area not within the Central District area, largely those portions east of Fallon Street. The Central City East plan defers to the land uses established in the General Plan and Estuary Policy Plan, but includes policies related to affordable housing, housing replacement, and relocation of displaced persons that apply within the project area boundaries.

III Proposed Redevelopment Actions

Due to the changes in Redevelopment law passed in 2011, Redevelopment agencies have been eliminated. However, Redevelopment Plans and other regulations have not been eliminated. As noted above, their applicability is unclear at the time of this writing.

I. [§323] Relocation of Persons (Including Individuals and Families), Business Concerns and Others Displaced by the Project

1. [§324] Assistance in Finding Other Locations

The Agency shall assist all persons (including individuals and families), business concerns and others displaced by the Project in finding other locations and facilities. In order to carry out the Project with a minimum of hardship to persons (including individuals and families), business concerns and others, if any, displaced from their respective places of residence or business by the Project, the Agency shall assist such persons (including individuals and families), business concerns and others in finding new locations that are decent, safe, sanitary, within their respective financial means, in reasonably convenient locations and otherwise suitable to their respective needs. The Agency may also provide housing inside or outside the Project Area for displaced persons.

2. [§325] Relocation Payments

The Agency shall make relocation payments to persons (including individuals and families), business concerns and others displaced by the Project for moving expenses and direct losses of personal property and additional relocation payments as may be required by law. Such relocation payments shall be made pursuant to the California Relocation Assistance Law (Government Code Section 7260, et seq.) and any Agency rules and regulations adopted pursuant thereto. The Agency may make other such payments as may be appropriate and for which funds are available.

L. [§328] Low- and Moderate-Income Housing

1. [§329] Replacement Housing

In accordance with Section 33334.5 of the Community Redevelopment Law, whenever dwelling units housing persons and families of low- or moderate-income are destroyed or removed from the low- and moderate-income housing market as part of the Project, the Agency shall, within four years of such destruction or removal, rehabilitate, develop or construct, or cause to be rehabilitated, developed or constructed, for rental or sale to persons and families of low or moderate income an equal number of replacement dwelling units at affordable rents within the Project Area or within the territorial jurisdiction of the Agency in accordance with all of the provisions of Sections 33413 and 33413.5 of the Community Redevelopment Law. The Agency shall require that replacement dwelling units rehabilitated, developed, or constructed pursuant to this section remain available at an affordable housing cost to person and families of low income, moderate income, and very low income households, respectively, for the longest feasible time as determined by the Agency, but for not less than the term of this Plan, except to the extent a longer period of time is required by law.

2. [§330] Project Area Housing Production

At least 30 percent of all new or substantially rehabilitated dwelling units developed by the Agency in the Project Area shall be available at affordable housing cost to persons and families of low or moderate income, with not less than 50 percent of these units made available at affordable housing cost to very low income households, as required by Section 33413 (in particular, subdivision (b) of that section) of the Community Redevelopment Law. At least 15 percent of all new or substantially rehabilitated dwelling units developed by public or private entities or persons other than the Agency in the Project Area shall be available at affordable housing cost to persons and families of low or moderate income, with not less than 40 percent of these units made available at affordable housing cost to very low income households, as required by Section 33413 (in particular, subdivision (b) of that section) of the Community Redevelopment Law. The requirements of this section shall apply in the aggregate, and not to each individual case of rehabilitation, development, or construction of dwelling units; however, the Agency in its discretion may impose inclusionary housing requirements on particular housing projects developed by public or private entities or persons other than the Agency in the Project Area, as needed in order for the Agency to comply with Section 33413 of the Community Redevelopment Law, this Plan, and the implementation plan adopted for the Project pursuant to Section 33490 of the Community Redevelopment Law.

FINDINGS OF THE HOUSING ELEMENT FINAL EIR

The most recent Housing Element update was the subject of a Final EIR completed in 2010. The findings of this analysis are relevant because they are recent and because they consider housing development on a range of potential development sites including in the Planning Area.

Development at the opportunity sites identified in the Housing Element, including on sites within the Planning Area, would largely occur as infill, in an urbanized and built-out City. The Housing Element EIR analysis determined that compliance with the goals, policies, and programs of the City's General Plan; Municipal Code (Title 17); SCA 4: Conformance with other Requirements; and SCA 5: Conformance to Approved Plans; Modifications of Conditions or Revocation; and Mitigation Measures from the LUTE EIR would ensure that development under the Housing Element would not conflict with adjacent land uses, divide an existing community, or conflict with applicable land use policies. As such,

the development of the identified opportunity sites in the Housing Element would have a less than significant impact with regard to land use.

The Housing Element EIR also determined that the development of the identified housing opportunity sites would have no significant impact on the City's population or housing, or jobs/housing balance, either directly or indirectly, nor would it result in the displacement of people that could result in the need to provide relocation housing.

Impact Analysis

THRESHOLDS OF SIGNIFICANCE

This section includes thresholds from the Land Use and Planning and Population and Housing sections. The proposed Plan would have a significant impact on the environment if it would:

1. Physically divide an established community;
2. Result in a fundamental conflict between adjacent or nearby land uses;
3. Fundamentally conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the proposed Plan (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;
4. Fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan;
5. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere in excess of that contained in the City's Housing Element;
6. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere in excess of that contained in the City's Housing Element; or
7. Induce substantial population growth in a manner not contemplated in the General Plan, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extensions of roads or other infrastructure), such that additional infrastructure is required but the impacts of such were not previously considered or analyzed.

METHODOLOGY AND ASSUMPTIONS

This analysis considers existing and proposed land use conditions within the Planning Area, current policies and goals in the City's General Plan, and other applicable regulations and policies. It compares the proposed Plan land uses to existing land uses and relevant policies to determine whether implementation of the proposed Plan will trigger any adverse impacts.

Opportunity sites for development were identified in order to make an assessment of the type and amount of development potential in the Planning Area. These are vacant and underutilized sites that are seen as most likely to be developed during the planning period (see Section 2.5 in Chapter 2 for more detail.) The potential development identified for each opportunity site (in terms of residential units and square feet of non-residential space) was determined based on a variety of factors, including market dynamics, building

feasibility, site size and location, and Plan policies. Total development potential also takes into account regional growth projections and the market opportunity assessment.

While the identified opportunity sites are the best estimate for sites that will redevelop over the planning period, it is likely that some of the sites identified as opportunity sites may remain in their current state, while others that are not identified as opportunity sites will undergo change. The level of buildout assumed to occur in this analysis is established as the reasonably foreseeable maximum development in the Planning Area under the Station Area Plan.

Reasonably foreseeable maximum development is based on several assumptions in order to establish a realistic build-out scenario. Site intensity (mid-rise versus high-rise) is determined by site location and size. These assumptions are described in Chapter 2. See Appendix B for a detailed table of buildout by opportunity site.

SUMMARY OF IMPACTS

The proposed Station Area Plan would bring an estimated 4,900 net new housing units to the Planning Area, along with about 400,000 square feet (net) of ground-floor commercial space and 1.2 million square feet of office and public office uses, in mid- and high-rise mixed-use buildings. Approximately 50,000 square feet of institutional uses are also expected.

Impact LU-1 – Physical Division of an Established Community

Development under the proposed Station Area Plan will not physically divide an established community. The proposed Plan would not create any barriers to public circulation, and would also work to diminish the dividing effect of I-880 and other features that are not currently well-integrated into the neighborhood. It would improve the streetscape environment that knits the neighborhood together.

Impact LU-2 –Fundamental Land Use Conflicts

Implementation of the Station Area Plan would not result in a fundamental conflict between adjacent or nearby land uses because new development will occur within the framework of existing and proposed land use regulations that emphasize compatibility with neighborhood character.

Impact LU-3 – Conflicts with Applicable Plans and Regulations

Implementation of the proposed Plan would be generally consistent with the City of Oakland General Plan's policies and its vision for the area. There are differences between existing zoning and the proposed Station Area Plan's character area and height area designations. However, none of these differences concern land use designations, policies or regulations adopted for the purpose of avoiding or mitigating an environmental effect while also resulting in a physical change to the environment. In addition, the differences will be addressed through General Plan Amendments and zoning code amendments processed concurrently with the Station Area Plan. Changes to land use and zoning also have the effect of helping the City to meet other regulatory goals such as historic preservation and neighborhood compatibility. The potential impact of the Station Area Plan is less than significant.

Impact LU-4 – Displacement of Housing or People

The proposed Plan would not displace substantial numbers of existing housing or people. The Plan is projected to produce up to 4,900 additional housing units in the Planning Area by 2035. This is a far

greater number than the number of units anticipated to be lost with new development (six units) located on opportunity sites. This, together with existing regulations, makes the potential impact on households displaced by new development less than significant.

Impact LU-5 – Inducement of Population Growth

The Plan would not induce substantial population growth in a manner not contemplated in the General Plan, either directly or indirectly. Projected housing and job growth supported by the Station Area Plan match very closely with long-range population and jobs forecast by the Association of Bay Area Governments (ABAG). The potential for the Station Area Plan to induce growth outside the Station Area as a result of infrastructure improvements or new jobs is also less than significant, because infrastructure improvements would not add capacity, and the Planning Area would actually house a lower proportion of new jobs than other parts of Oakland.

Cumulative Impact LU-6 – Land Use Conflicts

New development following the Station Area Plan, together with other past, present, and reasonably foreseeable maximum development in Oakland could result in cumulative changes to the character of the neighborhood and its surroundings. However, expected development is consistent with existing land uses, and with General Plan guidance that encourages higher-density infill development in downtown Oakland and transit-accessible locations. All new development is subject to zoning and project-level review, which includes consideration of land use compatibility. New development in the Planning Area will also reflect proposed land use, height limits and design guidelines that are based on enhancing neighborhood character and that will be reflected in amended General Plan and zoning districts. New development and major alterations will be required to demonstrate conformance with the intent of the Design Guidelines for the Lake Merritt Station Area. Cumulative development will not cause a fundamental conflict with surrounding land uses. This potential cumulative impact is less than significant, and the Plan's contribution to the impact will not be cumulatively considerable.

Potential Impacts Not Further Discussed

No habitat conservation plan or natural community conservation plan applies in the Planning Area. This potential impact is not further discussed.

IMPACTS

Impact LU-1

New development under the proposed Station Area Plan would not physically divide an established community. *(Less than Significant)*

The Station Area Plan proposes extensive improvements to streetscapes and public spaces. The street grid is the basic network that fosters physical unity in a community, and this environment would be enhanced. Proposed improvements are intended to enhance the connections between parts of the Planning Area that currently feel disconnected: across Lake Merritt Channel, through Laney College, under I-880 between the Planning Area and the Jack London District, and between all parts of the Planning Area and Lake Merritt BART Station. Improvements would include sidewalk widening; wayfinding signs; special lighting and/or screen walls in I-880 under-crossings; and improvements that enhance pedestrian comfort and safety on the streets that cross Lake Merritt Channel. While all of these would be Phase I

improvements, not requiring further detailed study, they are not needed to reduce this potential impact to less than significant. The proposed Plan includes provisions to connect the community rather than divide it. This potential impact is less than significant.

Impact LU-2

New development under the proposed Station Area Plan would not result in fundamental conflicts between adjacent or nearby land uses. ***(Less than Significant)***

The proposed Station Area Plan's land use policies and land use designations are closely based on the existing character of the area. The Area Character diagram (**Figure 2.3-1**) corresponds with amendments to the General Plan, Estuary Plan, and zoning, shown on **Figures 2.3-5** and **2.3-7,** that are being prepared concurrently with the Station Area Plan.

The Station Area Plan's proposed land use pattern is based on and aims to enhance the pedestrian-oriented, retail character of the Chinatown Commercial Core, the institutional character of the large blocks on both sides of Lake Merritt Channel, and the urban residential character of the Eastlake Gateway area. The Plan also supports the enhancement of potential character in the "Pedestrian Transition Zone" between the Chinatown Commercial Core and the Lake Merritt BART Station and in Upper Chinatown. Future development has the potential to enliven these areas and knit them more closely to the more clearly established portions of the Planning Area. Therefore, the proposed Plan is not expected to create fundamental conflicts with neighboring land uses.

The proposed Plan's building height limits and form guidelines seek to ensure that new development is compatible with the existing environment. Future buildings under the Station Area Plan are expected to support the existing neighborhood character, with proposed base and tower height limits based on their context.

Policies from the General Plan Land Use and Transportation Element (LUTE) address issues associated with potential land use conflicts within the Planning Area. These include policy D10.2, which calls for the City to locate housing downtown at locations where it is compatible with other uses; Policy N5.2, Buffering Residential Uses, and Policy N8.2, Making Compatible Interfaces between Densities. These policies will ensure that the proposed Plan will not fundamentally conflict with surrounding land uses.

Mitigation Measures

None required.

Impact LU-3

New development under the proposed Station Area Plan would not fundamentally conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the proposed Plan (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. ***(Less than Significant)***

Conflicts with a General Plan do not inherently result in a significant effect on the environment within the context of CEQA. As stated in Section 15358(b) of the CEQA Guidelines, "[e]ffects analyzed under CEQA must be related to a physical change." Section 15125(d) of the Guidelines states that EIRs shall discuss any inconsistencies between the proposed Plan and applicable General Plans.

Further, Appendix G of the CEQA Guidelines (Environmental Checklist Form) makes explicit the focus on *environmental* policies and plans, asking if the proposed Plan would "conflict with any applicable land use plan, policy, or regulation . . . *adopted for the purpose of avoiding or mitigating an environmental effect*" (emphasis added). Even a response in the affirmative, however, does not necessarily indicate the proposed Plan would have a significant effect, unless a physical change would occur. To the extent that physical impacts may result from such conflicts, such physical impacts are analyzed elsewhere in this document.

Regarding a proposed Plan's consistency with the General Plan in the context of CEQA, the Oakland General Plan states the following:

> *The General Plan contains many policies which may in some cases address different goals, policies and objectives and thus some policies may compete with each other. The Planning Commission and City Council, in deciding whether to approve a proposed project, must decide whether, on balance, the project is consistent (i.e., in general harmony) with the General Plan. The fact that a specific project does not meet all General Plan goals, policies and objectives does not inherently result in a significant effect on the environment within the context of the California Environmental Quality Act (CEQA). (City Council Resolution No. 79312 C.M.S.; adopted June 2005)*

The Proposed Station Area Plan and the General Plan/Estuary Policy Plan

The proposed Station Area Plan does not fundamentally conflict with Oakland General Plan policies. In fact, the proposed Plan reinforces many of the themes and policies of the General Plan, and adds more detailed guidance. The General Plan's vision for the Planning Area, as outlined above, includes supporting the unique character of Chinatown and enhancing the Channel Park area as a walkable, bicycle-friendly hub of culture and education. These policies are fleshed out in the Station Area Plan, which also adds to existing General Plan policies supporting high-density housing and mixed-use development.

The proposed Station Area Plan's Draft Area Character diagram (**Figure 2.3-1**) is generally consistent with existing General Plan land use classifications. There are some minor differences, shown on **Figure 2.4-1**, General Plan and Estuary Policy Plan. Only in one case would the Plan change a land use designation from one conceivably adopted for the purpose of avoiding or mitigating an environmental effect, and actually result in a physical change to the environment. The Station Area Plan classifies a small amount of land on the Laney College campus near Lake Merritt Channel as Institutional, where the current General Plan classifies it as Urban Park and Open Space. This land currently has a mix of educational and open space uses, and is part of the Laney College campus. Any future development here will be required to adhere to the City of Oakland's Creek Protection Ordinance and all relevant Standard Conditions of Approval (SCA) related to creek protection, as well as the proposed Plan's required 100-foot creek setback.

The Station Area Plan provides more detailed character distinctions within the large portion of the Planning Area classified as Central Business District in the General Plan. The finer distinctions mainly support the concept of a high-density, high-intensity area with a mix of uses, while setting variable heights and preferred use mixes. The area comprising the 7th Street/Harrison Square Residential District is proposed to have a 45-foot height limit. This would not allow for high-density, CBD-type development, and so would conflict with the current General Plan land use designation. At the same time, the proposed height limit would help to reinforce other General Plan goals and policies, particularly those in the Historic Preservation Element.

Amendments to the General Plan and Estuary Plan are proposed in coordination with the Station Area Plan and shown on **Figure 2.4-1**. These amendments would mirror the Station Area Plan's changes, though the district names are slightly different in some cases. The "Open Space District" on the Station Area Plan's Area Character diagram corresponds with the Urban Park and Open Space District in the General Plan, and the Parks district in the Estuary Policy Plan. Sites where the proposed Plan classifies as Flex District are proposed to be included in the General Plan's Central Business District.

The Proposed Station Area Plan and Zoning Districts

In some parts of the Planning Area, existing zoning aligns with the proposed Station Area Plan's Area Character diagram. This is true in the Chinatown Commercial Core and the 14th Street corridor, where the CBD-P/CH (Central Business District Pedestrian Retail Commercial-Chinatown) zone corresponds with the proposed Pedestrian character area. As with the General Plan, changes to open space zoning are most relevant for this discussion, as this classification may have been adopted at least in part for the purpose of mitigating or avoiding an environmental impact. Zoning amendments proposed to follow the Station Area Plan, shown on **Figure 2.4-3**, would maintain open space zoning along the length of Lake Merritt Channel where such zoning exists, and extend open space zoning to include the new portion of Lake Merritt Park, to the north, and the future extension of parkland along the Channel to the south. Proposed open space zoning would more closely match open space areas along the Channel, where environmental effects could be most relevant.

The proposed height limits are substantially different from the City's existing height limits. For most of the Planning Area, maximum base or tower heights would be reduced, with the effect of supporting the realization of other General Plan goals for compatibility and historic resource preservation. Zoning is being updated concurrently with the Station Area Plan. The proposed zoning districts correspond precisely with those proposed in the Station Area Plan.

Conclusion

The Station Area Plan is generally consistent with the vision and policies of the General Plan, and for the most part consistent with General Plan land use designations. In the cases where this is not true, proposed character areas help to reinforce other General Plan goals, notably in the area of fostering urban neighborhood development in the Eastlake Gateway area. Where the Station Area Plan is not consistent with existing zoning districts and height areas, the City of Oakland is proposing to amend both the General Plan and zoning concurrently with the Station Area Plan to eliminate any potential conflicts. None of the existing conflicts are with policies adopted for the purpose of avoiding or mitigating an environmental effect, and would result in an actual physical change to the environment. This potential impact is less than significant.

Mitigation Measures

None required.

Impact LU-4

New development under the proposed Station Area Plan would not displace substantial numbers of housing units or people, necessitating the construction of replacement housing elsewhere in excess of that contained in the City's Housing Element. ***(Less than Significant)***

Implementation of the proposed Station Area Plan and its land use designations and zoning amendments would not directly displace existing housing or people. The Planning Area currently includes approximately 3,000 housing units with 2,900 households. Just over one-third (1,106 units) of Planning Area housing is in 12 buildings with City-supported affordability provisions. New development in the Planning Area is expected to add approximately 4,900 new housing units by 2035. About 4,450 of these new units would be developed under the Plan, with the remainder already proposed or under construction. A very small number of housing units (six) are anticipated to be lost under the Station Area Plan, and a much larger number created, as described in the next section.

Effects of the Proposed Station Area Plan

Today, residential and mixed-use development that includes residential comprises 16 percent of the Planning Area. A majority of future development under the Station Area Plan is expected to be in these categories, and would take place on land that is currently vacant, parking lots, or low-scale commercial development. The overall proportion of land in the Planning Area that is used for housing will grow, and the number of housing units is expected to increase by over 150 percent. This development would occur under General Plan and Planning Code amendments based on the Station Area Plan and being prepared concurrently.

The Station Area Plan identifies "opportunity sites" where future development is anticipated to occur in the Planning Area. These sites, shown on **Figure 2.5-1** in Chapter 2, are identified because of their vacant status; their use as surface parking; the relatively low value of the buildings compared to the underlying land value; or their historic status. There are six existing housing units on the identified opportunity sites that could be lost, based on a best estimate of where future development will take place. This number of units and people is not substantial and would not require construction of new housing elsewhere. The lost units would be far outnumbered by new housing development under the proposed Plan .

Existing Regulations

Existing regulations summarized in the Regulatory Setting could have the effect of protecting existing housing units that could be lost. Under the City's Ellis Act Ordinance, lower-income households in projects where owners withdraw the units from the rental market are entitled to relocation assistance. New development associated with the Central District Urban Renewal Plan or the Central City East Redevelopment Project may still be required to provide relocation assistance and replacement housing at appropriate affordability levels. The status of Redevelopment requirements is not clear. If relocation assistance is used, rents for some tenants could be higher or the housing could be less desirable at a new location. Others may find it beneficial to relocate, if they find preferable or improved housing that better meets their needs, in terms of location, unit size or quality, or rent. In either case, existing households could benefit from existing protections.

The Housing Element also provides assurance that existing housing will be preserved. In particular, Policy 4.3 in the 2010 Housing Element calls for the city to support the preservation and rehabilitation of existing housing stock; encourage the relocation of structurally sound housing; and help citizens remain in their homes. Policies 5.1 and 5.5 recommit the City to seeking to preserve housing that may be at-risk of converting to market rate units or to non-residential uses. With existing regulations and development patterns facilitated by the proposed Station Area Plan, this potential impact is less than significant.

Mitigation Measures

None required.

Impact LU-5

New development under the proposed Station Area Plan would not induce substantial population growth in a manner not contemplated in the General Plan, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extensions of roads or other infrastructure), such that additional infrastructure is required but the impacts of such were not previously considered or analyzed. ***(Less than Significant)***

Direct Growth Inducement

The development under the proposed Station Area Plan is projected to result in 4,900 additional housing units in the Planning Area, with an associated household and population growth of 4,700 and 9,870, respectively. This projected growth matches nearly exactly with ABAG's 2009 growth forecast for 2035, as broken down by Traffic Analysis Zone (TAZ) by Alameda County Transportation Commission. As **Table 3.1-5** shows, under both the ABAG forecast and the Station Area Plan, households in the Planning Area in 2035 would represent 4 percent of all city households, up from 2 percent today. The Planning Area would contain 8 percent of the city's jobs, slightly down from 9 percent today. Growth in the Planning Area would account for 8 percent of the City's household growth under the Station Area Plan, and 5 percent of the City's job growth over the period. The only discrepancy between the regional forecast and Planning Area development projections stems from the fact that units that have come online since 2005 are accounted for as "existing" in the Station Area calculations. Therefore, the proposed Plan would not directly result in population growth over and above what is anticipated for Oakland in the future.

Table 3.1-5: Regional Growth Forecast and Station Area Plan Development Projections

	2005 or Existing[1]		*2035*		*Increase in Households*	*Increase in Jobs*
	Households	*Jobs*	*Households*	*Jobs*		
Association of Bay Area Governments and Alameda County Transportation Commission Projections 2009						
City of Oakland	154,580	202,570	212,000	281,900	37%	39%
Planning Area[2]	2,643	17,823	7,575	21,992	187%	23%
Planning Area as % of City	2%	9%	4%	8%	9%	5%
Projected Growth Resulting from the Proposed Station Area Plan						
Planning Area	2,900	17,800	7,600	21,900	162%	23%
Planning Area as % of City	2%	9%	4%	8%	8%	5%

Notes:

1. 2005 is the ABAG projection year. Existing units in the Planning Area are estimated as of 2009.
2. Planning Area growth is distributed by the Alameda County Transportation Commission (ACTC) by Traffic Analysis Zone (TAZ)

Sources: Association of Bay Area Governments, 2009; Alameda County Transportation Commission Projections, 2009; Dyett & Bhatia, 2012.

Infrastructure-Induced Growth

The proposed Station Area Plan would involve the development over time of under-utilized sites in an already built-up section of Oakland. The Plan would include a variety of changes to public infrastructure. These changes would have the effect of making the Planning Area's streets function more effectively for all modes of transportation, primarily by enhancing bike lanes, sidewalks, pedestrian amenities, and new lighting. Much of this can take place without further detailed technical study, and so is analyzed as part of this EIR. Public open space improvements are also planned, including completion of improvements along Lake Merritt and future improvements to Madison Square Park and Lincoln Recreation Center. Overall, infrastructure improvements may be expected to make the Planning Area more attractive and more accessible to people on bike and on foot and to transit users, while continuing to accommodate auto traffic efficiently. While these improvements may draw more people into the Planning Area, they will not increase the capacity of infrastructure outside the Planning Area, and should not be anticipated to induce infrastructure-based growth outside the Planning Area.

Job-Induced Growth

The proposed Station Area Plan would accommodate an estimated 4,100 additional jobs, in line with the regional forecast. Employment growth in the Planning Area would support the growth of households and population to provide the additional workers. The housing development facilitated by the Station Area Plan, however, would bring an estimated 4,700 households, equivalent to more than one household for each new job. The proportion of citywide jobs located in the Planning Area is actually projected to decline over the coming years, from 9 percent today to 5 percent by 2035. In other words, job growth would be slower in the Planning Area than in other parts of Oakland. Rather than Planning Area jobs inducing population growth elsewhere, the Planning Area may be seen as accommodating employed residents who work elsewhere.

Summary

The Station Area Plan will facilitate new development and substantial growth of both population and jobs in the Planning Area, through concurrent General Plan and Planning Code amendments, planned infrastructure improvements, and other means. However, growth is in line with regional growth projections. The Planning Area is expected to experience population growth at approximately twice as rate as the city overall, while seeing its share of jobs decline. In other words, the Planning Area is expected to absorb population induced by job growth elsewhere in the region. This potential impact would be less than significant.

Mitigation Measures

None required.

Cumulative Impact LU-6

Development following the proposed Station Area Plan in combination with past, present, and reasonably foreseeable maximum development in Oakland, would not fundamentally conflict with adjacent or nearby land uses, or fundamentally conflict with existing plans adopted to address environmental concerns. (*Less than Significant*)

The proposed Station Area Plan is expected to result in substantial new development, with an emphasis on housing and ground-floor retail as well as office and institutional uses. Active major development projects in progress or completed in the Planning Area and vicinity, as represented in **Table B-2** of Appendix B, are primarily residential, while the larger vicinity is also experiencing office development, particularly in Downtown Oakland. All of these uses are consistent with existing uses in Oakland's mixed-use Central Business District and its surroundings.

Most of the recently completed projects in the Planning Area are residential buildings of five to 10 stories, while active major development projects include towers of up to 27 stories. Higher buildings are expected to be developed adjacent to the Planning Area near Lake Merritt and in Downtown Oakland. The Station Area Plan would facilitate the development of mid- and high-rise buildings, typically residential with ground-floor retail, on approximately 30 sites in the Planning Area. While new buildings under the Station Area Plan and current active projects are expected to be denser or more intense than is typical in the area today, they are in keeping with General Plan guidance for the development of higher-density infill development in transit-oriented locations. Active development projects and future development under the Station Area Plan are subject to development guidance contained within the General Plan and other applicable land use plans to ensure land use compatibility, exercised through project-level review.

New buildings following the Station Area Plan would also be subject to new context-sensitive height limits and design guidelines. New development and major alterations will be required to demonstrate conformance with the intent of the Guidelines. Therefore, the combination of the proposed Plan and other projected development will not cause significant impacts related to fundamental conflicts with adjacent or nearby uses or conflicts with existing plans, policies and regulations and the proposed Plan's contribution to the impact is not cumulatively considerable.

Mitigation Measures

None required.

3.2 Transportation and Traffic

This section provides an overview of the existing transportation issues in the Planning Area and surrounding environment, the regulatory framework, an analysis of transportation impacts that would result from implementation of the Project, and mitigation measures where appropriate.

Environmental Setting

PHYSICAL SETTING

The Planning Area includes a mix of circulation routes, including a regional freeway, connections to the City of Alameda via the Webster Street and Posey Tubes, arterial streets in Downtown Oakland, collectors, pedestrian-oriented commercial streets, and residential streets. All of these different streets are within the half-mile radius of the Lake Merritt BART Station. Currently, most of the streets have reserve capacity. However there are a few key regional junctions that have heavy traffic during peak hours, specifically the I-880 freeway and the streets that connect to the Webster Street and Posey Tubes.

Field observations demonstrate strong pedestrian and bicycle activity within the Planning Area. The primary pedestrian area is the Chinatown Commercial District, where local residents walk to shop, eat out at restaurants, take children to schools, and attend many cultural facilities. Other major pedestrian destinations include: the County government center, Laney College, Lake Merritt BART Station, and the Jack London Square residential neighborhood. A diverse group of residents, workers, students, visitors, and the transit-dependent use the area's bus stations and the Lake Merritt BART Station. Bicyclists use the various on-street facilities for local and regional access through the Planning Area.

Currently within the Planning Area multiple transportation related improvement projects are undergoing construction or have been recently completed, including the Measure DD funded 12th Street Project. The 12th Street Project is improving Lakeshore Avenue, Lakeside Drive/Harrison Street, and 12th Street, all of which are located within the Planning Area.

The 12th Street project was under construction when traffic counts were conducted and traffic patterns and volumes were influenced by construction detours and lane closures. The effect of construction on normal traffic patterns, and the changes in routes and travel patterns with completion of the 12th Street project was considered in the development of traffic projections. The use of adjustments and alternate data are explained in the section describing the traffic forecasting process.

Roadway Network

The key regional and local roadways in the vicinity of the Planning Area are described below. There are multiple types of streets within the Planning Area and it should be noted that the classification of

roadways (arterial, collector, or local) is based upon driver experience and existing traffic volumes. In certain cases several roadways, such as 10th Street, function at a higher classification than their designation in the City's General Plan.

Regional Access

Interstate 580 (I-580), which is also known as the MacArthur Freeway, is an east-west freeway that is located north of the project area. I-580 connects the US-101 Interchange in Marin County to the west and the Interstate 5 (I-5) Interchange in San Joaquin County to the east. In the vicinity of the project area, I-580 provides eight travel lanes and serves approximately 173,000 vehicles per day (vpd).[1] Access to the project area is provided via interchanges at Broadway, Harrison Street, and Grand Avenue.

Interstate 880 (I-880), which is also known as the Nimitz Freeway, is a north-south freeway that borders the southern boundary of the Focus Area. I-880 connects the Interstate 80 (I-80)/I-580 Interchange (the "MacArthur Maze") in Oakland to the north and the Interstate 280 (I-280) Interchange in San Jose to the south. In the project area, I-880 provides eight travel lanes and serves approximately 197,000 vpd.[2]. Interchanges with Broadway/Jackson Street and Oak Street provide access to and from the Planning Area.

Interstate 980 (I-980) is a north-south freeway that is located west of the project area. I-980 connects the I-580 Interchange to the north, where it becomes State Route 24 (SR-24), and the I-880 Interchange to the south. In the vicinity of the project area, I-980 provides six travel lanes and serves approximately 75,000 vpd.[3] Bay Area Rapid Transit (BART) tracks are located in the center median of the I-980 freeway. Access to the project area is provided via 11th and 12th Streets.

14th Street is an east-west arterial roadway that runs through the northern portion of the Planning Area. In the project area, 14th Street is a bi-directional, four-lane roadway. 14th Street connects Maritime Street at the Oakland Naval Supply Center to the west and Lakeside Drive/Oak Street near Lake Merritt to the east. South of Lake Merritt, eastbound 14th Street traffic merges onto 11th Street to access areas east of the lake. Furthermore, westbound traffic on 12th Street can merge onto 14th Street at Lakeside Drive/Oak Street. East of Lake Merritt, 14th Street is renamed as International Boulevard, which later becomes Mission Boulevard in Hayward to the south. South of 42nd Avenue in Oakland, International Boulevard is also designated as State Route 185 (SR-185).

Arterial Streets

5th Avenue is a north-south arterial roadway that is located at the eastern end of the Planning Area. In the project area, 5th Avenue is a bi-directional, two-lane roadway. 5th Avenue connects Park Boulevard to the north and Embarcadero at the marina to the south.

7th Street is an east-west arterial roadway that runs through the project area. In the project area, west of Fallon Street, 7th Street is a one-way roadway with four eastbound lanes. East of Fallon Street, 7th Street

[1] Caltrans Traffic and Vehicle Data Systems Unit, http://traffic-counts.dot.ca.gov/2011all/index.html.

[2] *Ibid.*

[3] *Ibid.*

is a bi-directional, four-lane divided roadway. 7th Street connects to Middle Harbor Road to the west. East of 5th Avenue, 7th Street transitions to 8th Street.

8th Street is an east-west arterial roadway that runs through the project area. In the project area, 8th Street is a one-way roadway with four westbound lanes. East of Fallon Street, 8th Street is a bi-directional, six-lane divided roadway. The Lake Merritt BART Station is located on the north side of 8th Street, west of its intersection with Oak Street.

11th Street is an east-west arterial roadway that runs through the project area. In the project area, 11th Street is a one-way roadway with four eastbound lanes. 11th Street connects to Maritime Street to the west and East 12th Street to the east. There is an underground section of 11th Street at the southern end of Lake Merritt which provides vehicular access to Lake Merritt Boulevard and 12th Street east of the lake.

12th Street is an east-west arterial roadway that runs through the project area. In the project area, 12th Street is a one-way roadway with four westbound lanes. 12th Street connects to Pine Street to the west and 54th Avenue to the east.

Broadway is a north-south arterial roadway that is located at the western end of the Planning Area. In the project area, Broadway is a bi-directional, four-lane divided roadway. Broadway is a major city arterial that connects from Highway 24, through Downtown, and then and goes south to the Embarcadero West street next to the waterfront.

Embarcadero West is an east-west arterial roadway that is located at the southern end of the Planning Area. In the project area, Embarcadero is a bi-directional, two-lane roadway and provides access to Jack London Square and the Oakland/Alameda Ferry. East of Oak Street, a Class II bike lane is provided. Embarcadero parallels I-880 to the south and connects the Port of Oakland to the west and 23rd Avenue to the east. *Oak Street* is a north-south arterial roadway that provides access to the Lake Merritt BART Station just north of 8th Street. Oak Street is a one-way roadway with four northbound lanes north of I-880. South of I-880, Oak Street is a bi-directional, two-lane undivided roadway. Oak Street provides a connection from 14th Street to the north and Embarcadero to the south. At 14th Street Oak becomes Lakeside Drive, which continues north along the edge of Lake Merritt.

Webster and Harrison Streets are two north-south arterial roads that provide access to the project area from the City of Alameda. North of 7th Street, Webster Street is a one-way roadway and provides four southbound lanes. In the Webster Street Tube, two southbound lanes are provided. South of the tube section, Webster Street is a four-lane undivided roadway in Alameda. North of 10th Street, Harrison Street is a bi-directional, four-lane undivided roadway. Between 10th Street and I-880, Harrison Street is a one-way roadway with four northbound lanes. In the Posey Tube, Harrison Street provides two northbound lanes. North of 8th Street, both Webster Street and Harrison Street become collector roads. Harrison Street is an arterial north of 20th Street.

Collector Streets

Franklin Street is a north-south collector roadway that is located at the western end of the Planning Area. In the project area, north of 7th Street, Franklin Street is a one-way roadway with four northbound lanes. South of 5th Street, it is a one-way local street with one southbound lane. Franklin Street connects 22nd Street to the north and Embarcadero at Lack London Square to the south.

Jackson Street is a north-south collector roadway that runs through the project area. In the project area, Jackson Street is a bi-directional, two-lane roadway. Jackson Street connects Lakeside Drive to the north and 2nd Street near the Jack London Square Amtrak station to the south.

Madison Street is a north-south collector roadway that provides access to the Lake Merritt BART Station. Madison Street is a one-way roadway with three southbound lanes north of 4th Street. Madison Street connects Lakeside Drive to the north and 2nd Street to the south.

Local Streets

9th Street is an east-west local roadway that runs through the Planning Area. 9th Street is a one-way roadway with three eastbound lanes. 9th Street connects Pine Street to the west and Fallon Street at the Laney College campus to the east. The Lake Merritt BART Station is located at the 9th Street/Oak Street intersection. Furthermore, access to the Lake Merritt BART Station's Permit Lot is provided along 9th Street.

10th Street is an east-west local roadway that runs through the Planning Area. In the project area, 10th Street is a one-way roadway with four westbound lanes. 10th Street connects Frontage Road to the west and Fruitvale Avenue to the east.

13th Street is an east-west local roadway that runs through the Planning Area. 13th Street is a one-way roadway with four eastbound lanes. 13th Street connects Wood Street to the west and Oak Street to the east. South of Lake Merritt, eastbound 13th Street traffic merges onto 11th Street to access areas east of the lake.

15th Street is an east-west local roadway that is located at the northern end of the Planning Area. In the project area, between Broadway and Harrison Street, 15th Street is a one-way roadway with two westbound lanes. The segment between Jackson Street and Madison Street is a bi-directional, two-lane roadway. 15th Street connects Wood Street to the west and Fruitvale Avenue to the east.

Alice Street is a north-south local roadway that runs through the Planning Area. In the project area, Alice Street is a bi-directional, two-lane roadway. Alice Street connects 19th Street to the north and 2nd Street at the Jack London Square Amtrak station to the south.

Fallon Street is a north-south local roadway that fronts the Laney College campus. Between 10th Street and 9th Street, it is a bi-directional, three-lane roadway with two northbound lanes and one southbound lane. Between 9th Street and 8th Street, it is a bi-directional, two-lane roadway. Between 8th Street and 7th Street, it is a one-way roadway with three northbound lanes. South of 7th Street, Fallon Street is a bi-directional, two-lane roadway and provides access to the Laney College parking lot.

Study Intersections Included in Analysis

The Lake Merritt Station Area Plan allows development that will increase traffic volumes on the street network within and external to the Planning Area. To assess changes in traffic conditions associated with the project, the following intersections, illustrated in **Figure 3.2-1**, were selected for evaluation in the traffic study:

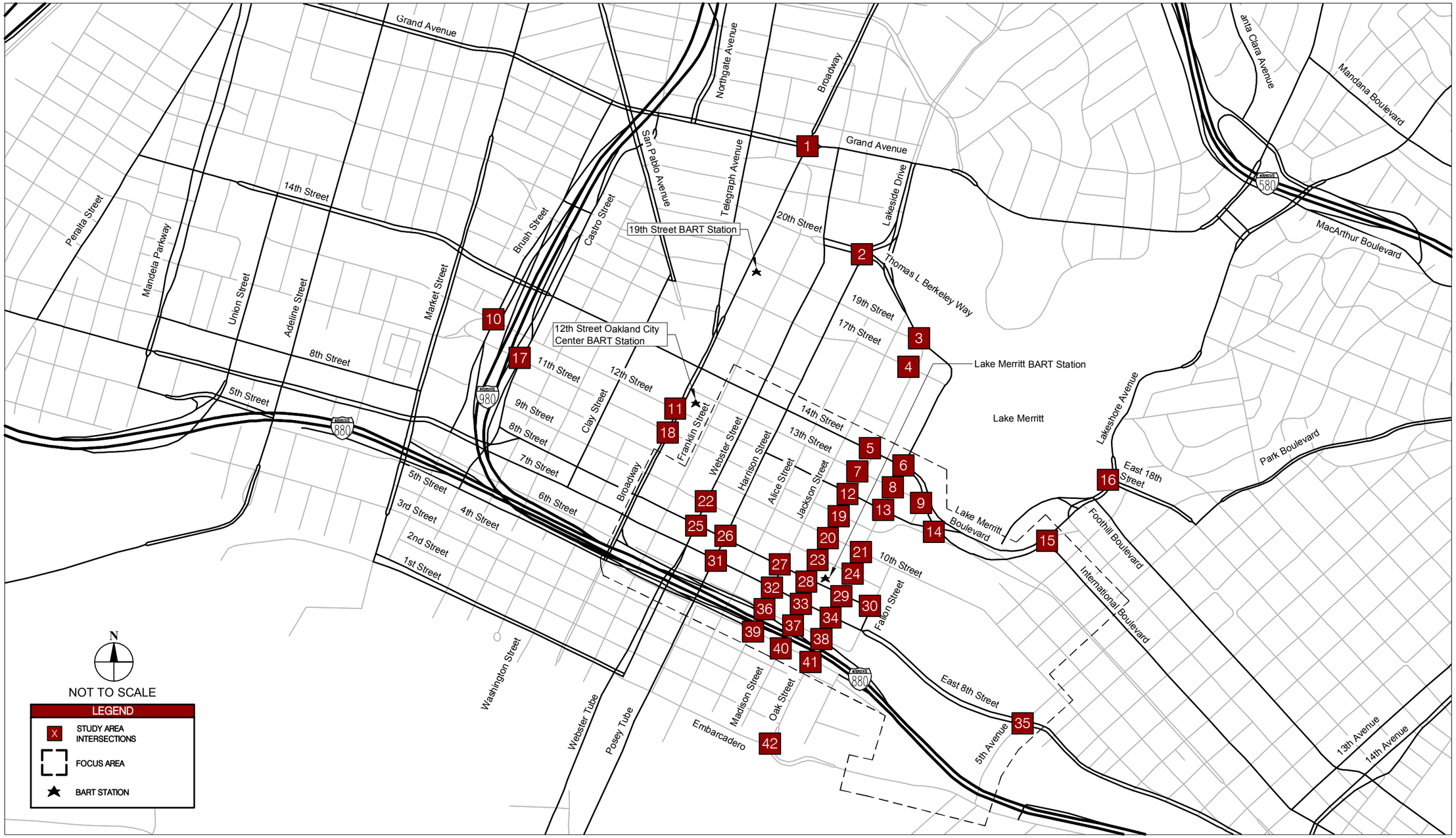

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FIGURE 3.2-1
PROJECT LOCATION AND STUDY INTERSECTIONS
LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS

1. Broadway and Grand Avenue
2. Harrison Street and 20th Street
3. Lakeside Drive and Madison Street
4. Madison Street and 17th Street
5. Madison Street and 14th Street
6. Oak Street and 14th Street
7. Madison Street and 13th Street
8. Oak Street and 13th Street
9. Lake Merritt Boulevard (12th Street Dam) and 13th Street
10. Brush Street and 12th Street
11. Broadway and 12th Street
12. Madison Street and 12th Street
13. Oak Street and 12th Street
14. Lake Merritt Boulevard (12th Street Dam) and 12th Street/11th Street
15. International Boulevard and 1st Avenue
16. Lakeshore Avenue and East 18th Street
17. 11th Street and Castro Street
18. Broadway and 11th Street
19. Madison Street and 11th Street
20. Madison Street and 10th Street
21. Oak Street and 10th Street
22. Webster Street and 9th Street
23. Madison Street and 9th Street
24. Oak Street and 9th Street
25. Webster Street and 8th Street
26. Harrison Street and 8th Street
27. Jackson Street and 8th Street
28. Madison Street and 8th Street
29. Oak Street and 8th Street
30. Fallon Street and 8th Street
31. Harrison Street and 7th Street
32. Jackson Street and 7th Street
33. Madison Street and 7th Street
34. Oak Street and 7th Street
35. 5th Avenue and East 8th Street
36. Jackson Street and 6th Street
37. Madison Street and 6th Street
38. Oak Street and 6th Street
39. Jackson Street and 5th Street
40. Madison Street and 5th Street
41. Oak Street and 5th Street
42. Oak Street and Embarcadero (segment)
43. Constitution Way and Marina Village Parkway (City of Alameda)
44. Constitution Way and Atlantic Avenue (City of Alameda)
45. Webster Street and Atlantic Avenue (City of Alameda)

The City of Oakland maintains a list of intersections that have been identified from previous envirionmental documents as having significant and unavoidable impacts. The list of intersections and their associated EIR document and LOS is provided in **Appendix D**.

Roadway Segments Included in Analysis

To assess changes in traffic conditions associated with the project, Oak Street from 5th Street to Embarcadero was selected for evaluation in the traffic study.

FREEWAY SEGMENTS INCLUDED IN ANALYSIS

The Lake Merritt Station Area Plan will allow development that will increase traffic volumes on the freeway network. To assess changes in traffic conditions associated with the project, the following freeway segments were selected for evaluation in the traffic study:

1. I-880 NB: 5th Avenue to Oak Street
2. I-880 NB: Oak Street to Jackson Street
3. I-880 NB: Jackson Street to I-980
4. I-880 SB: I-980 to Jackson Street
5. I-880 SB: Jackson Street to Oak Street
6. I-880 SB: Oak Street to 5th Avenue
7. I-980 EB: I-880 to 14th Street
8. I-980 EB: 14th Street to 18th Street
9. I-980 WB: 18th Street to 14th Street
10. I-980 WB: 14th Street to I-880

Existing Lane Configurations and Traffic Control

Existing intersection lane configurations and traffic control at study intersections are illustrated in **Figure 3.2-2**. Traffic signals in the study area are located at all study intersections, except for the intersection of Oak Street and Embarcadero.

Existing Peak Hour Turning Movement Volumes

Weekday intersection turning movement volumes were collected at project study area intersections in May 2012. Volumes are shown in **Figure 3.2-3**. Volumes were collected during the AM (7:00 AM to 9:00 AM) and PM (4:00 PM to 6:00 PM) peak periods of the weekday when local schools were in session and outside of holiday periods. Traffic volume data sheets for new counts are available in **Appendix D**.

Existing Transit Facilities

Public transit service in the City of Oakland is provided by Alameda-Contra Costa Transit District (AC Transit) buses, BART, San Francisco Bay Area Water Emergency Transportation Authority (WETA) ferry service, and Amtrak trains. These services are described below.

AC Transit

Local bus service in the project area and throughout Alameda County is provided by AC Transit. AC Transit carries an average 41 transit trips per capita per year and on an average weekday, nearly 200,000 boarding passengers, on 116 different transit lines.[4] AC Transit routes that serve the Planning Area are shown in **Figure 3.2-4**, and include the following:

[4] Source: www.actransit.org, accessed 8/25/12. Information is for 2009/2010 fiscal year.

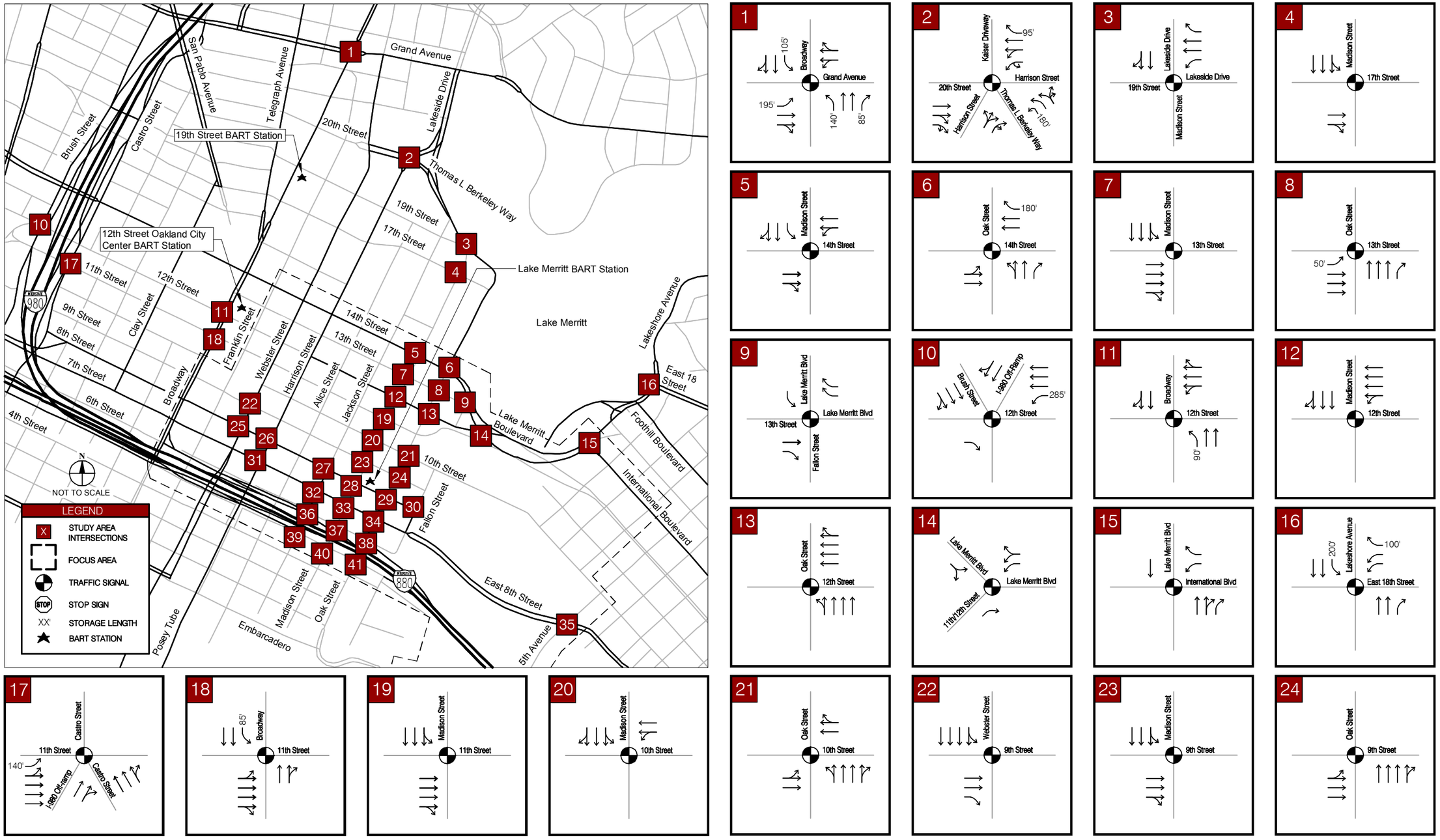

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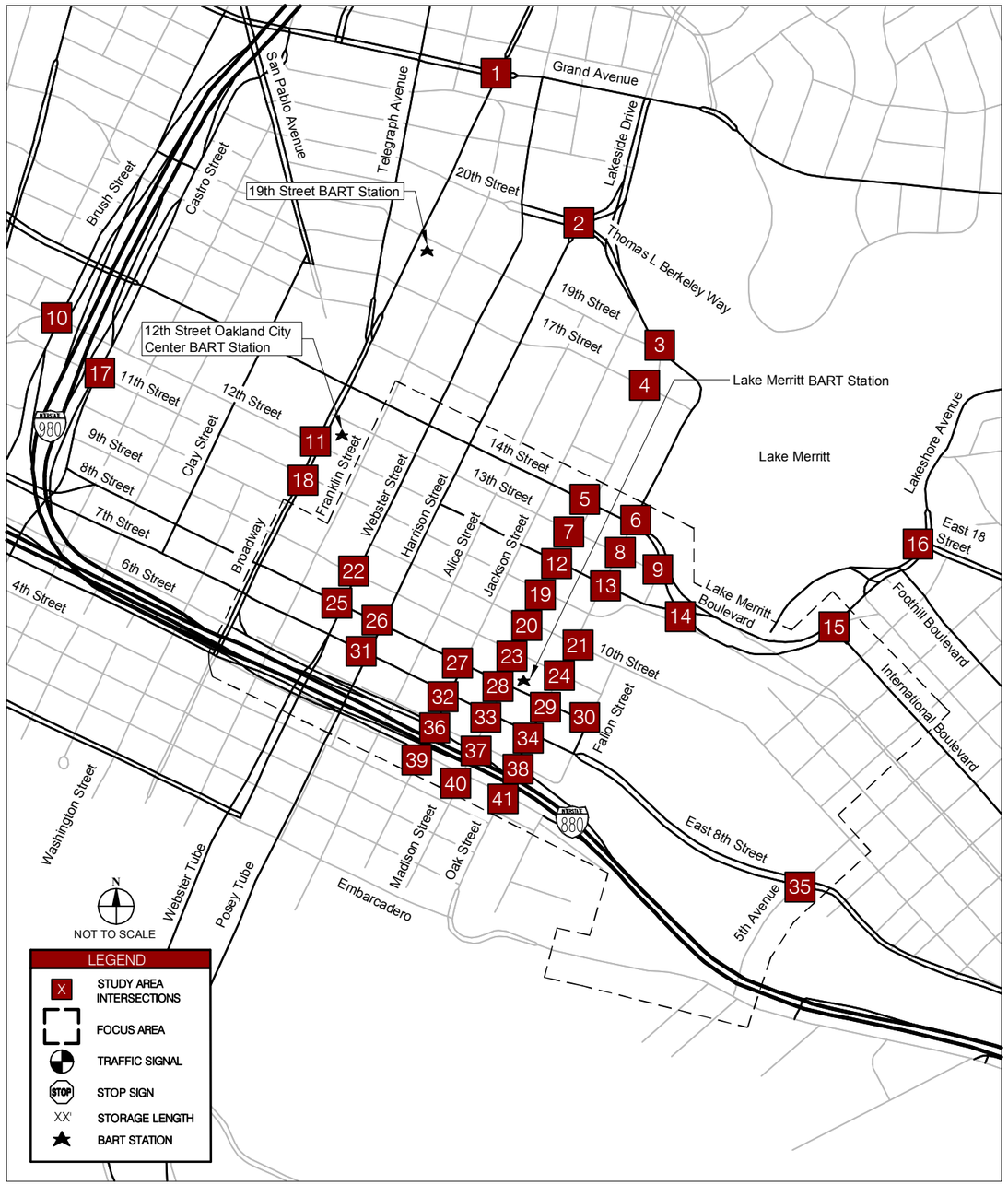
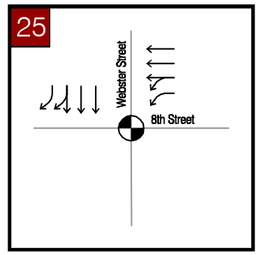
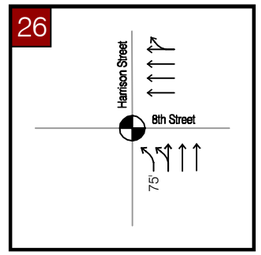
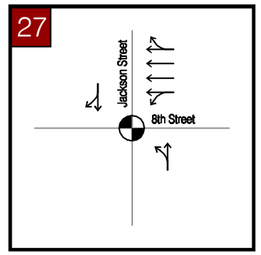
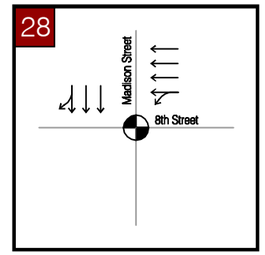
FIGURE 3.2-2
EXISTING NO PROJECT CONDITION - LANE GEOMETRY AND TRAFFIC CONTROL
LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS

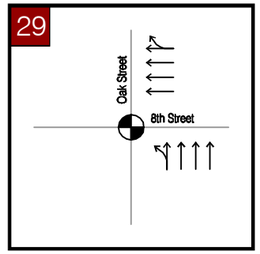


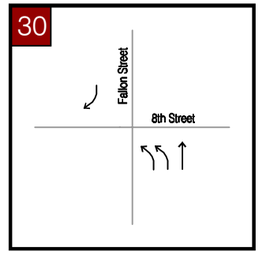


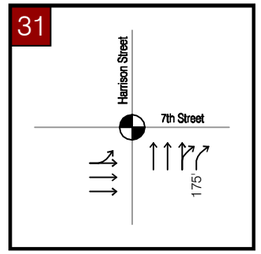


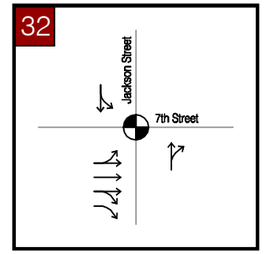


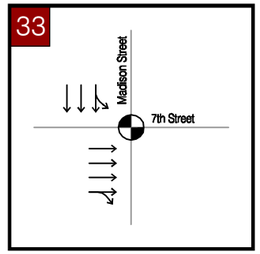


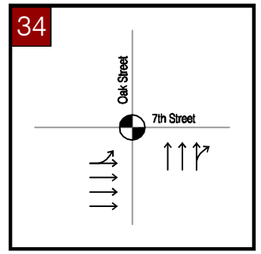


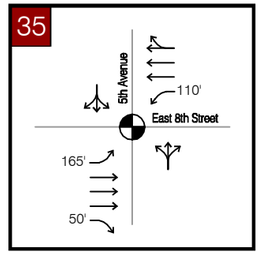


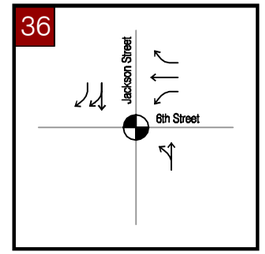


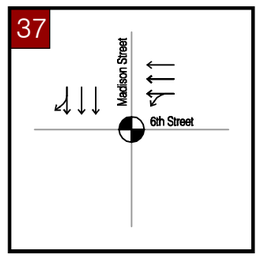


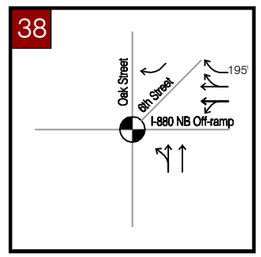


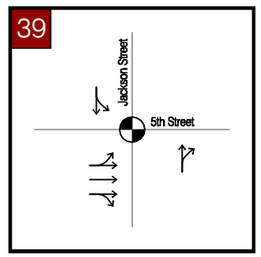


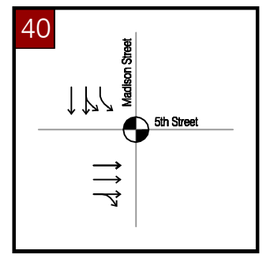


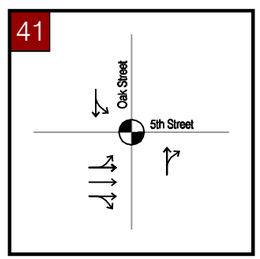












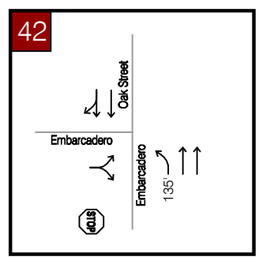


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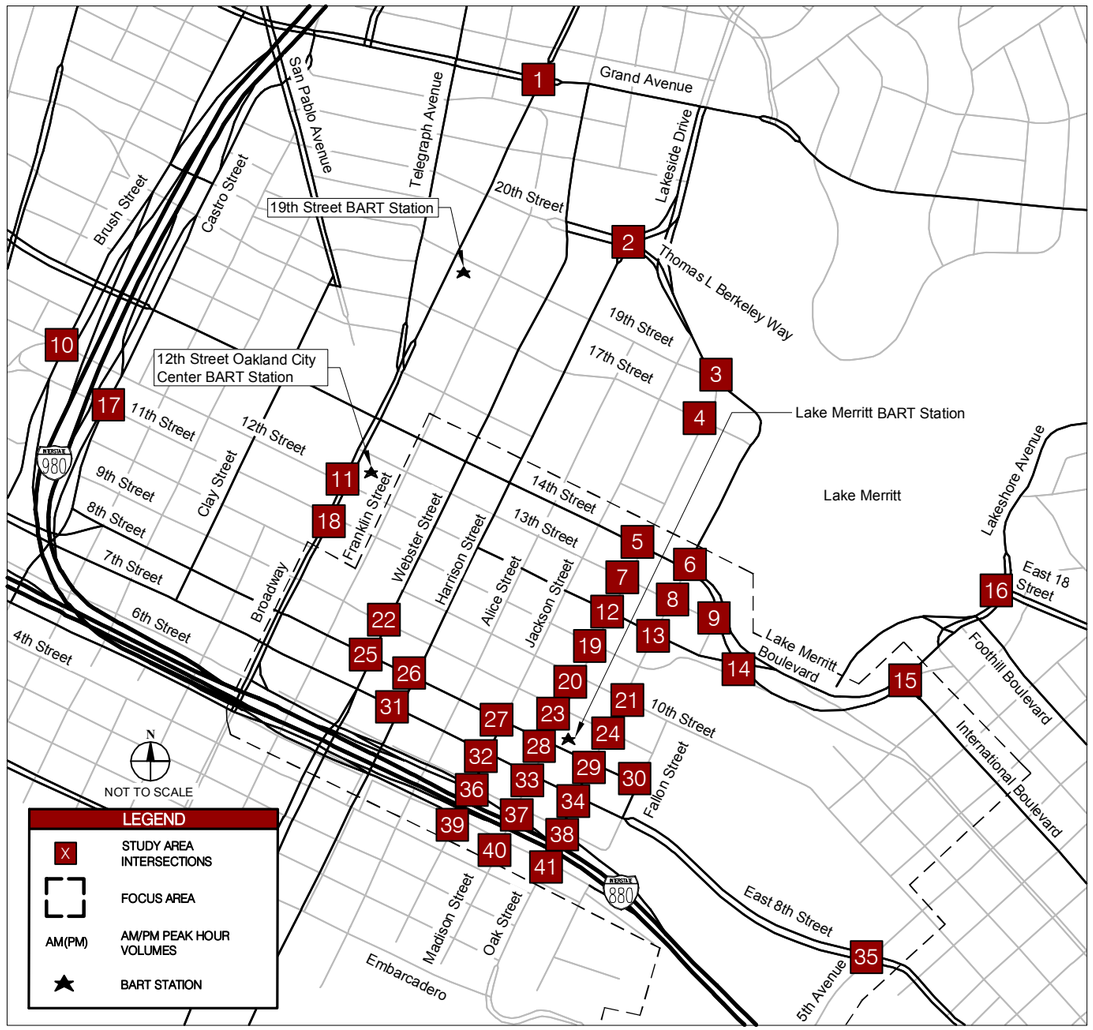
FIGURE 3.2-2 (continued)
EXISTING NO PROJECT CONDITION - LANE GEOMETRY AND TRAFFIC CONTROL
LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS



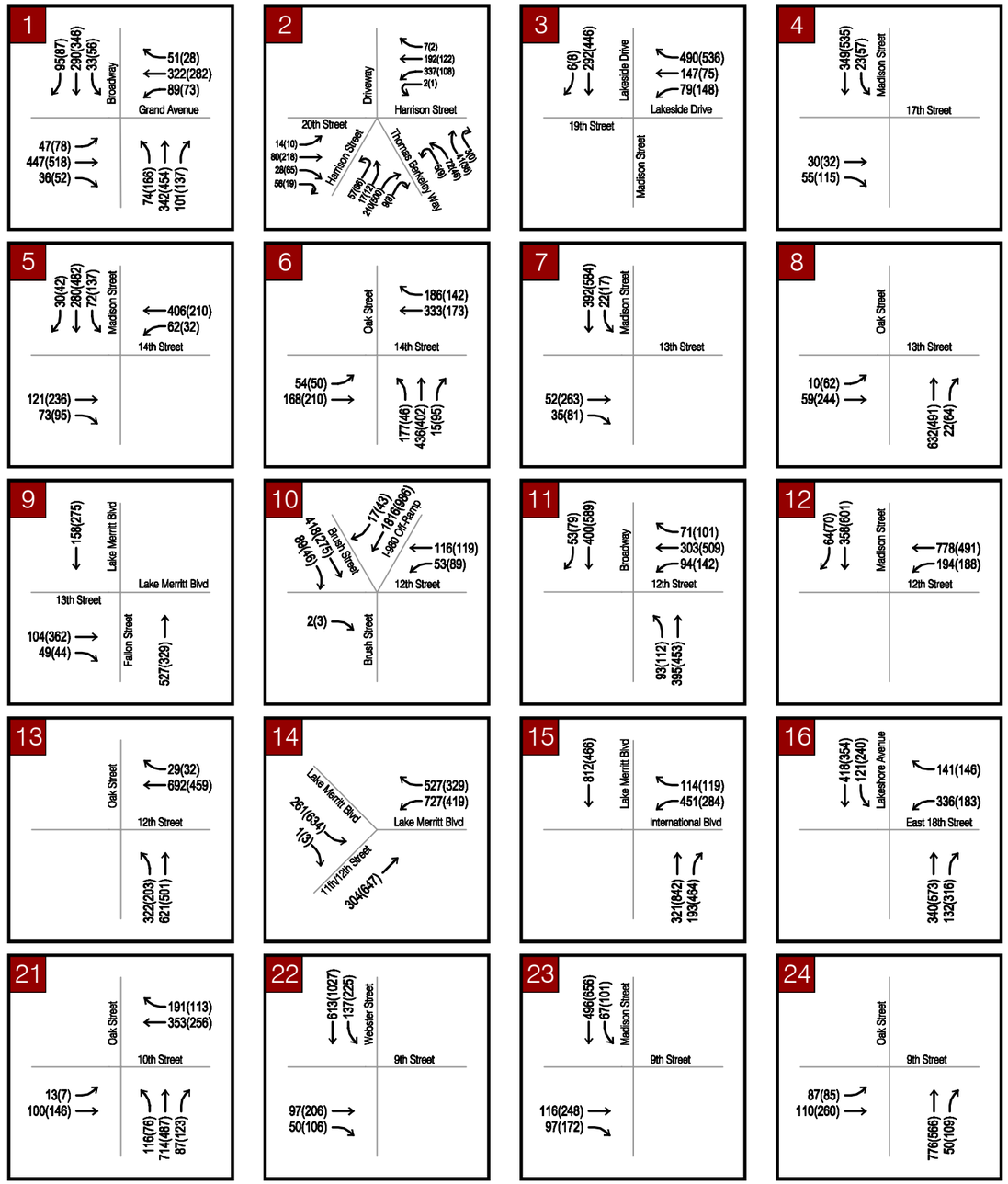


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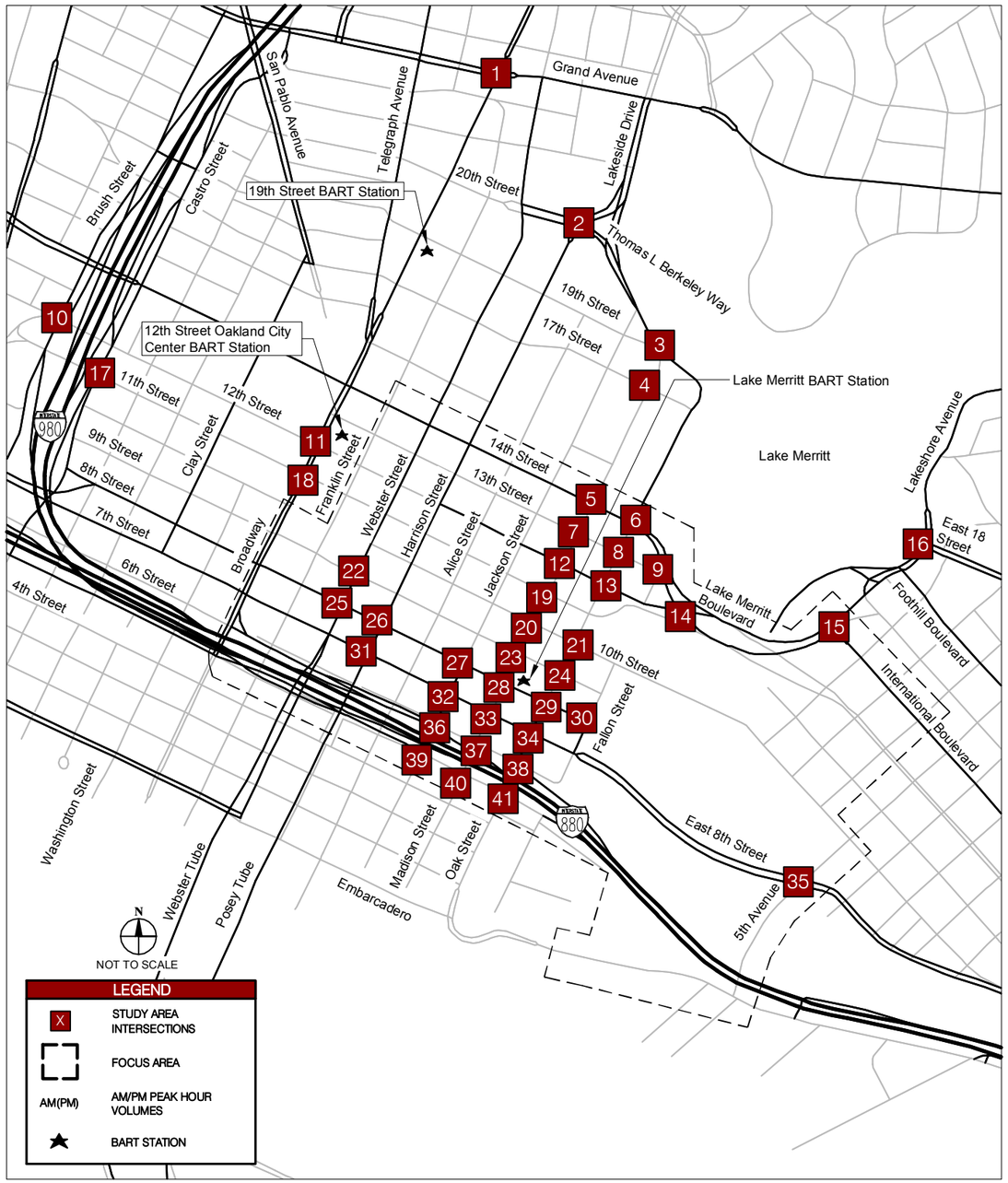
FIGURE 3.2-3
EXISTING NO PROJECT CONDITION - AM/PM PEAK HOUR TURNING MOVEMENT VOLUMES
LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS



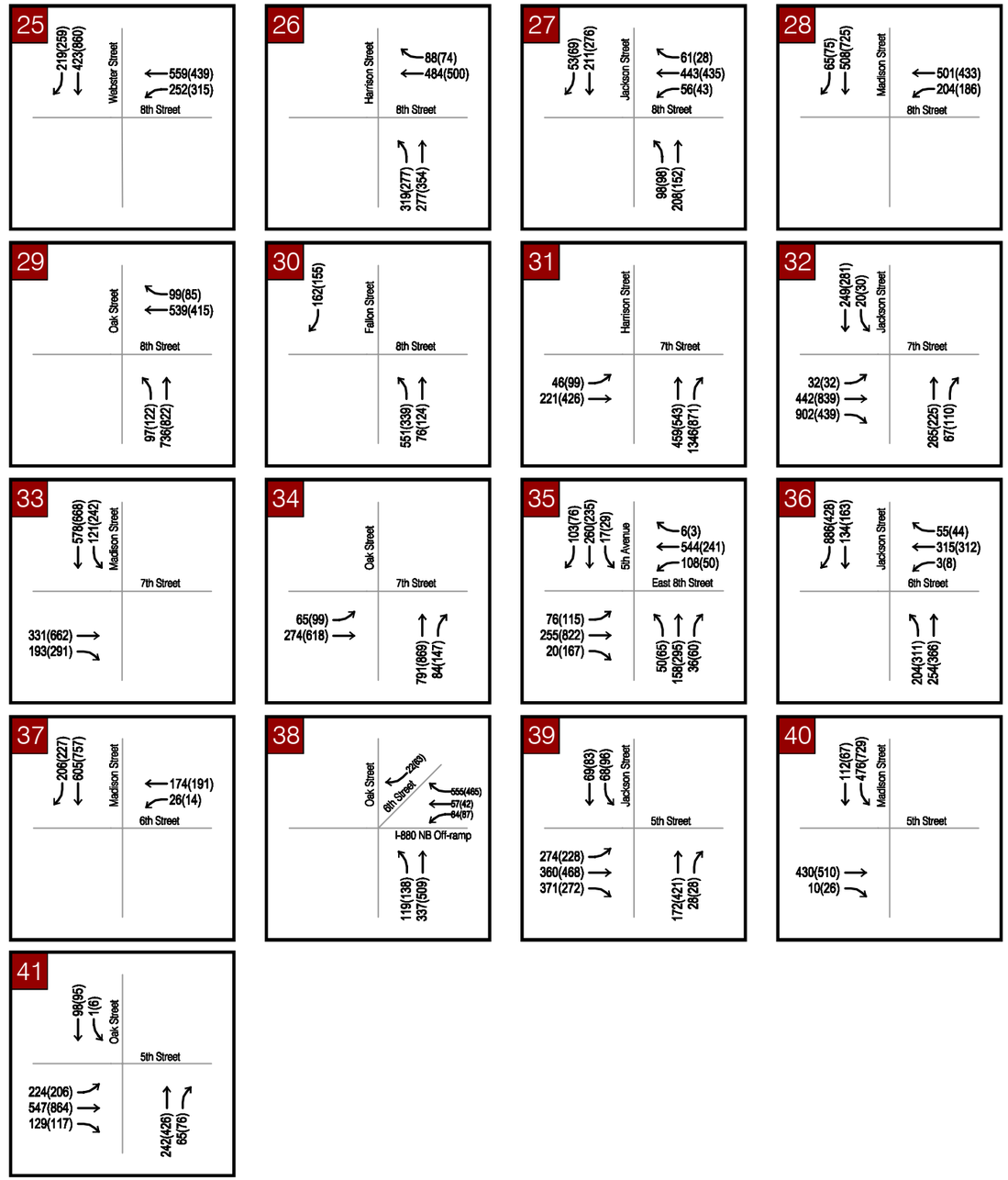


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FIGURE 3.2-3 (continued)
EXISTING NO PROJECT CONDITION - AM/PM PEAK HOUR TURNING MOVEMENT VOLUMES
LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS

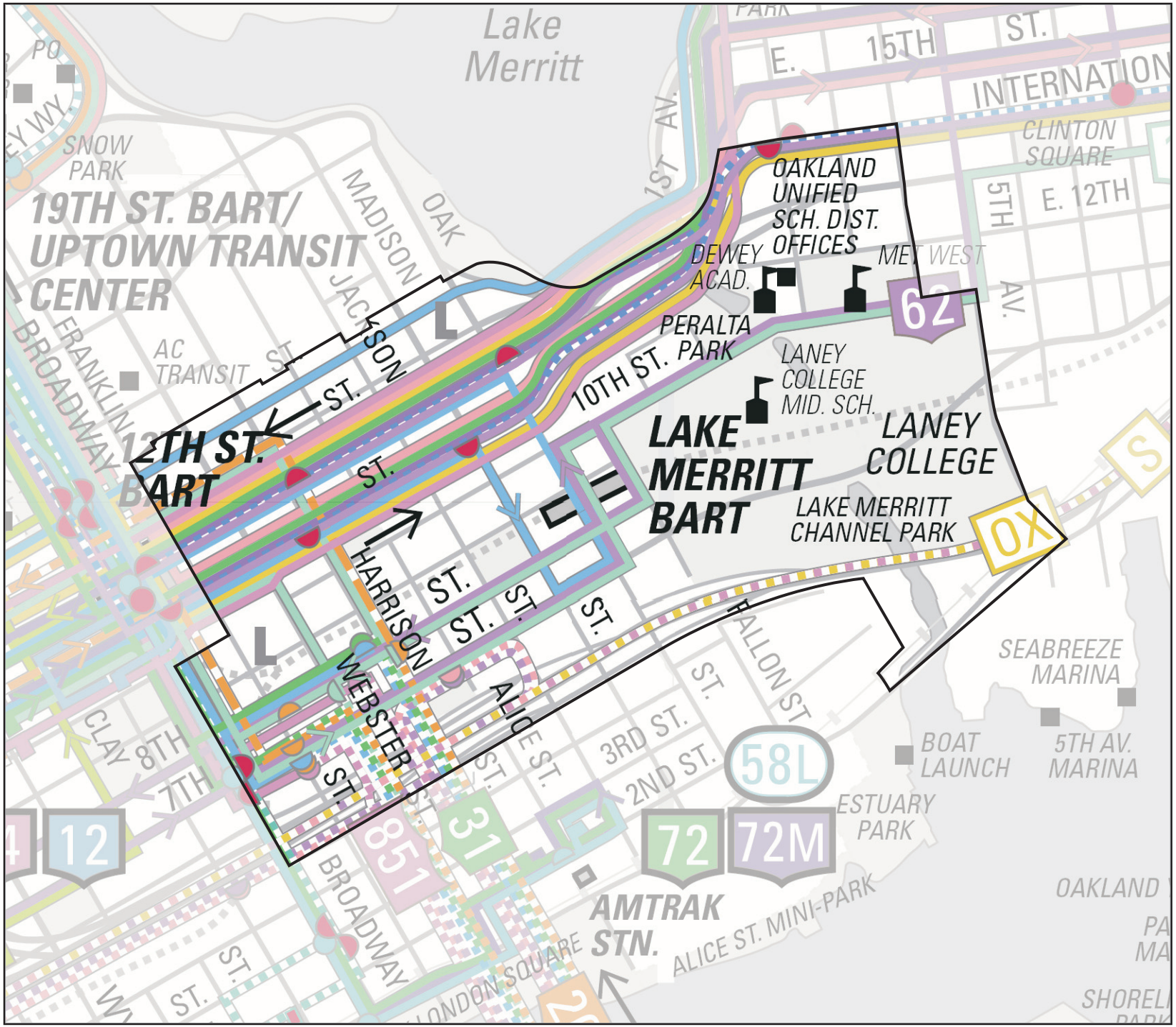

Figure 3.2-4
Transit Routes

Planning Area

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Rapid Route

- 1R- Bayfair BART-International Blvd.-Downtown Oakland-Berkeley

Truck Routes

- 1- Bayfair BART-San Leandro BART-International Blvd.-Downtown Oakland-Berkeley
- 40- Bayfair BART-Eastmont Transit Center-Foothill Blvd.-Downtown Oakland
- 51A- Fruitvale BART-Alameda-Downtown Oakland-Sutter Medical Center-Rockridge BART

Major Corridor Routes

- 18- Montclair-Downtown Oakland-MacArthur BART-Berkeley-Albany
- 88- Lake Merritt BART-West Oakland-Market Street-Sacramento Street-Berkeley

Local Routes

- 11- Diamond District-Downtown Oakland-Oakland Avenue-Piedmont
- 14- Fruitvale BART-High Street-Eastlake-Downtown Oakland
- 20- Alameda South Shore-Webster Street-Downtown Oakland
- 31- Alameda Point-Downtown Oakland-Peralta Street-MacArthur BART
- 62- Fruitvale BART-23rd Avenue-7th Street-Downtown Oakland-West Oakland BART

All-Night/ Late Night Routes

- 801- Fremont BART-Hayward BART-Bayfair BART-Downtown Oakland
- 840- Eastmont Transit Center-Foothill Boulevard-Downtown Oakland
- 851- Fruitvale BART-Alameda-Downtown Oakland-Rockridge BART-Berkeley

Additionally, AC Transit Routes O, OX, and W provide service to the San Francisco Transbay Terminal.

Bus Rapid Transit (BRT)

AC Transit has funded, and is implementing, Bus Rapid Transit (BRT) within the planning area along a route comprised of Broadway, 12th Street, 11th Street, Lakeside Drive, and International Boulevard. Portions of the BRT route will have exclusive bus lanes which, when completed, will reduce the lanes available for automobiles. The reduction in lanes after BRT begins operation is reflected in the 2020 and 2035 traffic analyses.

Bay Area Rapid Transit (BART)

BART trains provide regional transit connections throughout the San Francisco Bay Area. The Lake Merritt BART Station, which is located at the center of the Planning Area at northwest corner of the Oak Street/8th Street intersection, is served by the Richmond-Fremont, Fremont-Daly City/Millbrae, and Daly City/Millbrae-Dublin/Pleasanton lines.

- The Richmond-Fremont line operates from 4:00 AM to 1:30 AM on weekdays, with 15-minute headways during the peak periods. During the weekend, this line operates from 5:50 AM to 1:30 AM with 20-minute headways.
- The Fremont-Daly City/Millbrae line operates from 5:00 AM to 8:00 PM on weekdays, with 15-minute headways during peak periods. During the weekend, this line operates from 8:50 AM to 8:00 PM with 20-minute headways.
- The Daly City/Millbrae-Dublin/Pleasanton line operates from 4:00 AM to 1:30 AM on weekdays with 15-minute headways during peak periods. During the weekend, this line operates from 6:00 AM to 1:30 AM with 20-minute headways.

According to October 2009 ridership information provided by BART, during the AM peak hour, which represents the periods with the greatest activity, there are 622 entries and 768 exits at the Lake Merritt BART Station. Additionally, the load factor at this station during the AM peak hour is 95 passengers per car, which is below the BART fleet planning standard of 107 passengers per car.

There are two bus loading zones serving the Lake Merritt BART Station, one along Oak Street and the other along 8th Street. The bus loading zone along Oak Street is at the north leg of the Oak Street/8th Street intersection and serves northbound buses. A concrete shelter is provided at this bus stop. The bus loading zone along 8th Street is at the west leg of the Oak Street/8th Street intersection and serves westbound buses. BART police parking and a drop-off/pick-up zone are provided along the west side of Oak Street, just north of 8th Street. Because the streets surrounding the Lake Merritt BART Station are one-way streets, vehicles traveling southbound along Madison Street and Fallon Street must loop around to access the passenger drop-off/pick-up zones on Oak Street.

There are five entrances to the Lake Merritt BART Station, including an elevator. The entrances are located on both sides of Oak Street, between 8th Street and 9th Street. Bike parking is provided at the southeast corner of the Oak Street and 9th Street intersection.

Parking for Lake Merritt Bart Station patrons is provided at two surface lots. The larger parking lot, which is a Permit Lot, is bound by 9th Street to the north, 8th Street to the south, Fallon Street to the east, and Oak Street to the west. Access to this lot is provided at 9th Street for eastbound traffic and 8th Street for westbound traffic. The smaller lot, which is a Fee Lot, is located directly behind the Joseph P. Bort MetroCenter building, north of 7th Street between Madison Street and Oak Street. Access to this lot is provided at 7th Street for eastbound traffic.

The 12th Street Oakland City Center BART Station, which is located in the heart of Downtown Oakland, is just outside the Planning Area. It is served by the Pittsburg/Bay Point-SFO, Richmond-Fremont, and Richmond-Daly City/Millbrae lines. The 12th Street Oakland City Center station offers greater rider choice as compared to the Lake Merritt BART Station. It serves as a major transfer point and is a more attractive station for BART patrons destined for Richmond or Pittsburg/Bay Point. Furthermore, the 12th Street Oakland City Center BART Station provides connectivity to more AC Transit bus routes as compared to the Lake Merritt BART Station.

Amtrak

Amtrak provides intercity rail service to Oakland at the Jack London Square station at 2nd and Alice Streets. Corridor train services include the *Capitol Corridor* trains, serving San Jose-Sacramento-Auburn; the *San Joaquin* trains, serving Oakland-Bakersfield; and a once a day long distance train, the *Coast Starlight* (Los Angeles-Seattle).

Ferry Service

Ferry service is provided at Jack London Square to Alameda, Angel Island State Park, and San Francisco destinations at AT&T Park, San Francisco Ferry Building, and Pier 41. The ferry operates from 6:00 AM to 9:00 PM on weekdays, with headways ranging from 30 minutes to an hour during the peak periods, carrying approximately 1,715 passenger-trips. During the weekend, the ferry operates from 9:00 AM to 7:00 PM. Additional ferry service is provided to AT&T Park on days/nights when there are San Francisco Giants home games.

Estuary Crossing Shuttle

This bus service is sponsored by the City of Alameda and the Bay Area Air Quality Management District. It travels between the Lake Merritt BART Station and the City of Alameda (three stops) via the Posey-Webster tubs. Service operates every half-hour between 7 AM and noon and 3:30 to 6:30 PM on weekdays. Buses can accommodate up to 19 seated passengers and 12 bicycles. No fare is charged for this service. Part of its purpose is to link the College of Alameda to Laney College.[5]

Paratransit Services

The East Bay Paratransit Consortium (EBPC) was formed by the AC Transit District and BART to jointly provide paratransit services as mandated by the Americans with Disabilities Act (ADA) of 1990 in the overlapping service areas of the two agencies. These services are generally provided to anyone in the two districts who is unable to use conventional fixed-route transit services, or who needs special assistance in using transit. Service is by advance reservation only and is provided "door to door," although trips may be shared with other riders (i.e., it is not an exclusive ride service, like a taxicab).

Other Shuttles (Specialized)

Other shuttle services operate to Lake Merritt station, including a Highland Hospital shuttle and one serving the County Administrative Complex. Approximately 75 to 80 people a day use the latter shuttle.[6] Additional transit services and shuttles were described in *Existing Conditions and Key Issues Report,* Section 7.6.

Existing Pedestrian Facilities

The entire Planning Area falls within the City of Oakland's Downtown Pedestrian District as defined in the City of Oakland Pedestrian Master Plan (2002). Within this district every street is designated as a "pedestrian route", and therefore, ranked as high priority for pedestrian improvements. Not every street in the District can reasonably be designated a high priority for pedestrian improvements, so when funding is

[5] Source: www.EstuaryXINGshuttle.org, accessed 8/29/12.

[6] Meeting with Alameda County General Services Administration, 6/22/11 (Kathleen Kennedy, Aki Nakao, and Tim Timberlake)

available the City selects streets for improvement based on criteria that includes streets with the highest pedestrian use and that provide the best connectivity between pedestrian generators, and also streets that have specific improvements recommended in adopted plans. Field observations demonstrate strong pedestrian and bicycle activity within the Planning Area. **Figures 3.2-5** and **3.2-6** show the pedestrian and bicycle volumes at each study intersection.

The primary pedestrian area is the Chinatown Commercial District, where local residents walk to shop, eat out at restaurants, take children to schools, and attend many cultural facilities. Other major pedestrian destinations include: the County government center, Laney College, Lake Merritt Bart Station, and the Jack London Square residential neighborhood. A diverse group of residents, workers, students, visitors, and the transit-dependent use the area's bus stations and the Lake Merritt Bart Station. Bicyclists use the various on-street facilities for local and regional access through the Planning Area.

Generally, the street grid creates pedestrian-scale city blocks with continuous sidewalks on both sides of the street. Sidewalks in the study area are in fair to good condition. In the Chinatown Commercial area, crosswalks are striped where crossings are allowed and signals include pedestrian signal heads on most approaches. Pedestrian scramble signals, which provide an exclusive all-red phase for pedestrians to cross, are located at the intersections of 8th/Webster, 8th/Franklin, 9th/Webster, and 9th/Franklin. Sidewalk conditions are generally in good condition and mostly 12 feet wide throughout the Chinatown Commercial area.[7]

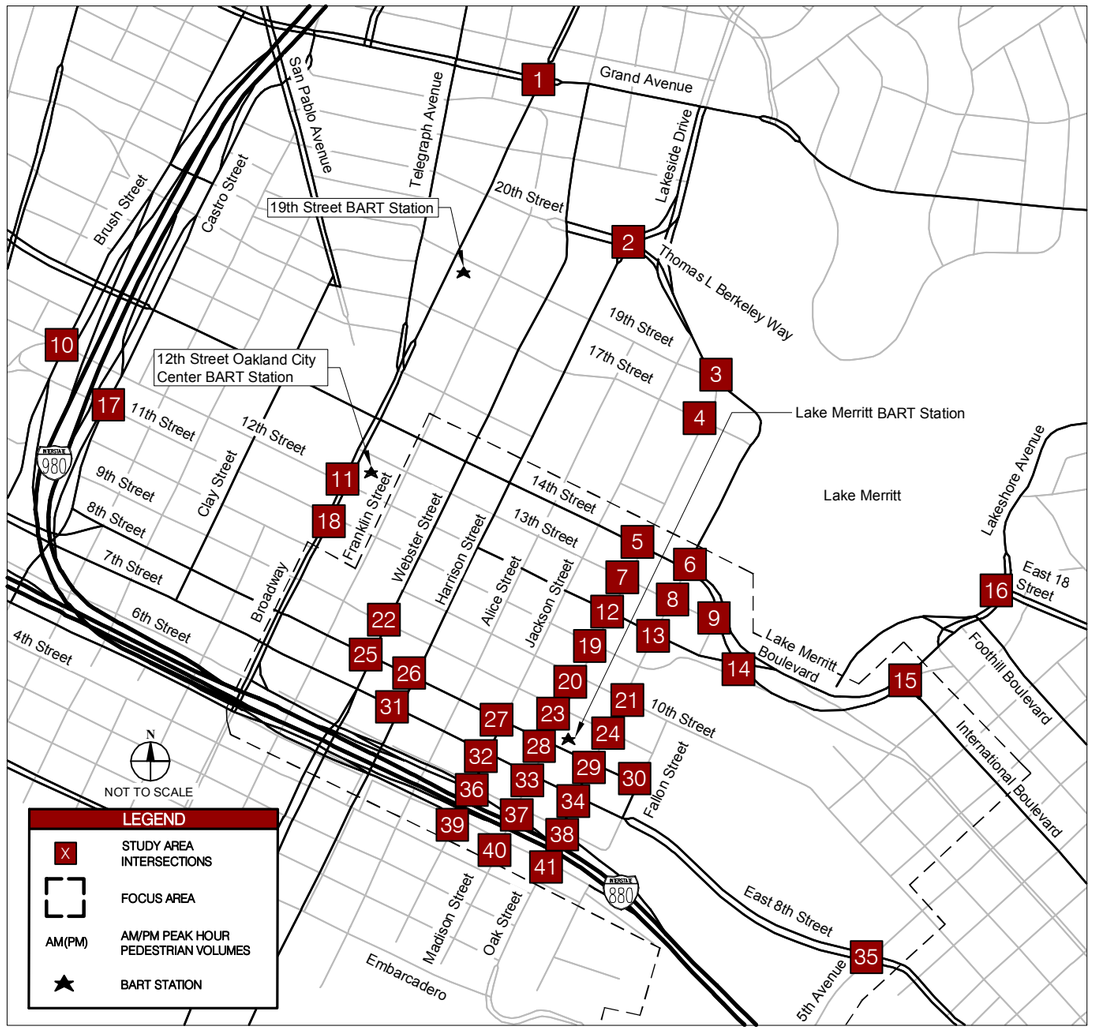
Most intersections in the Chinatown Commercial area are equipped with updated curb ramps with detectable warnings and marked crosswalks, and which allow crossings at all legs. One exception is the 10th/Webster Street intersection, where pedestrians are prohibited from crossing the south leg due to the heavy volumes of the westbound left-turning movement which is provided a protected phase that would conflict with the pedestrian walk phase.

Numerous curb ramps outside of the Chinatown Commercial and Lake Merritt Bart Station areas need to be replaced for proper crosswalk alignment and to conform to current ADA standards. Some corners lack curb ramps altogether, particularly in the vicinity of Laney College and near the freeway around 5th Street. Furthermore, many sidewalks within the Chinatown neighborhood are difficult to negotiate as merchant displays encroach onto the pedestrian right-of-way. Although these displays of merchant's wares are partly what attracts pedestrians to Chinatown, they obstruct a portion of the sidewalk throughway and inhibit pedestrian access, particularly for the disabled and elderly population.

Existing Bicycle Facilities

The flat terrain and grid street network in the Planning Area encourages bicycling. However, the existing bikeways in the Planning Area are limited. A Class III (signed) bike route is designated on Oak Street from Embarcadero to 4th Street, 4th Street from Oak to Fallon, and picks up the off-street path along the Lake Merritt Channel to 10th Street. The Lake Merritt Bart Station is the only downtown Oakland station allowing bikes during all hours (12th and 19th Street stations restrict bicycles from the station during the peak hours). Based on field observations, 10th Street appears to have the highest volume of bicyclist activity. There was no discernible pattern for bicyclists traveling on the north-south streets in the study area. The path circumscribing Lake Merritt experiences a large number of commute and recreational bicyclists.

[7] *Revive Chinatown Community Transportation Plan: Final Report*, City of Oakland, September 2004, Figure 2.



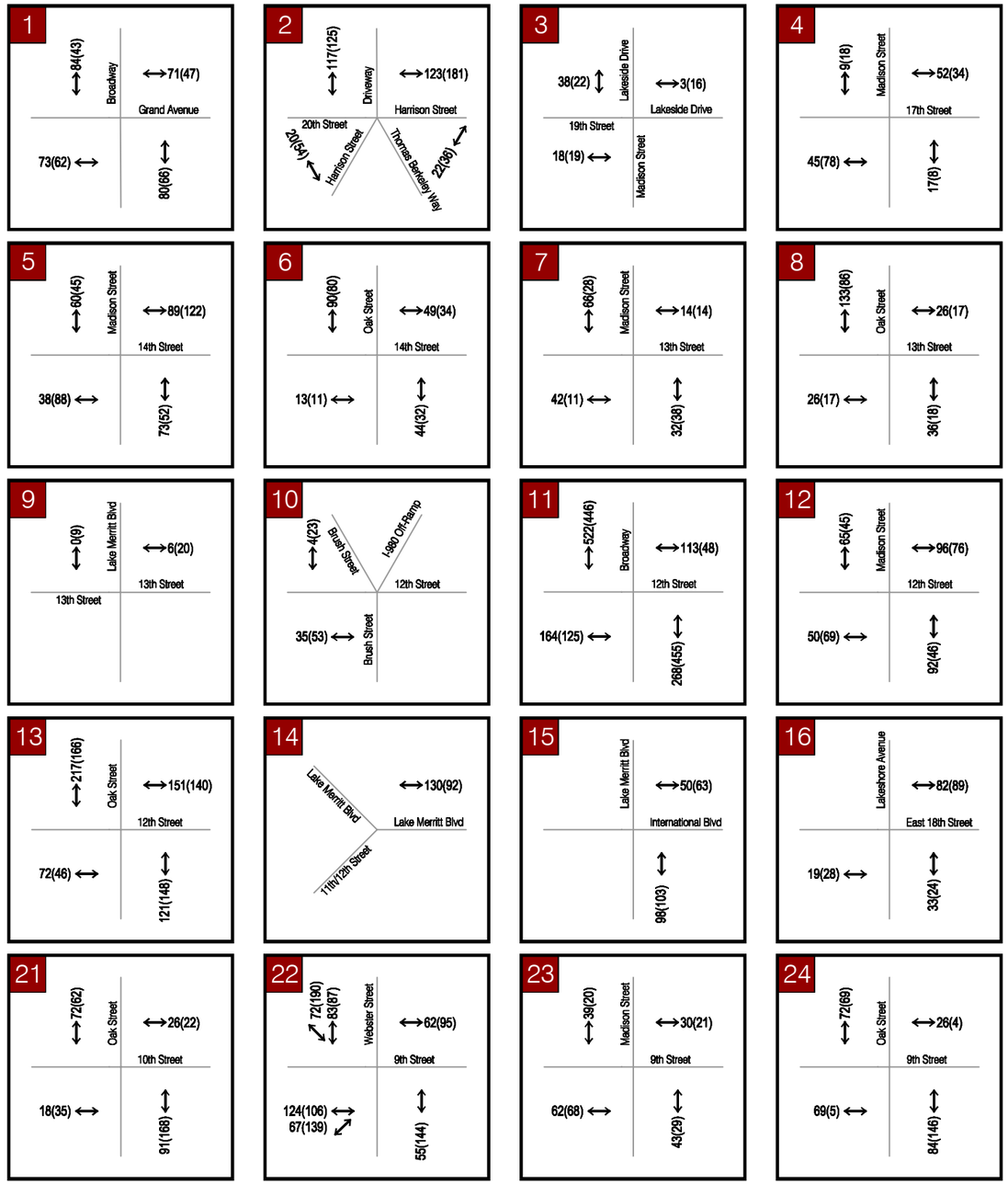


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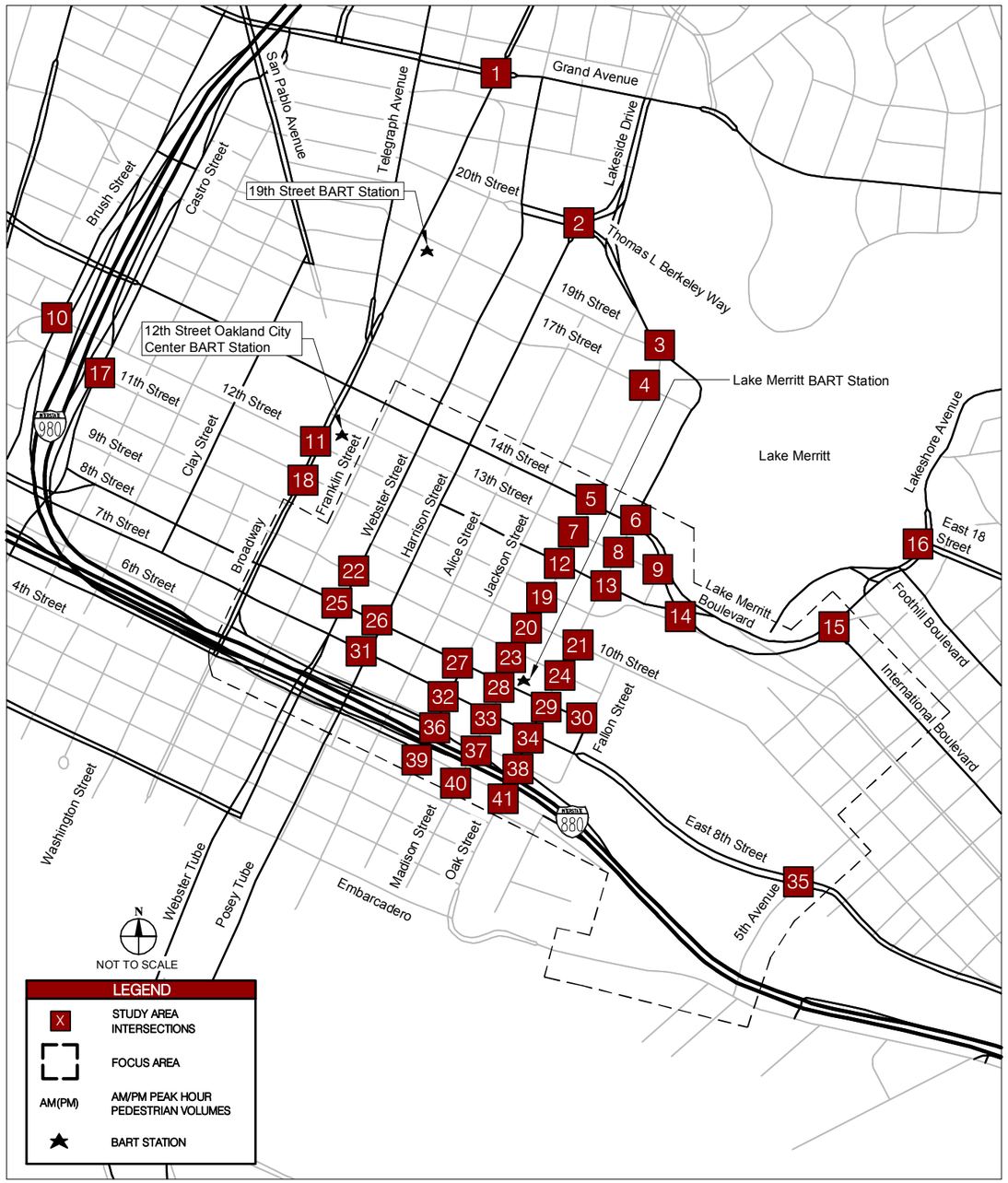
FIGURE 3.2-5

EXISTING NO PROJECT CONDITION - AM/PM PEAK HOUR PEDESTRIAN VOLUMES

LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS



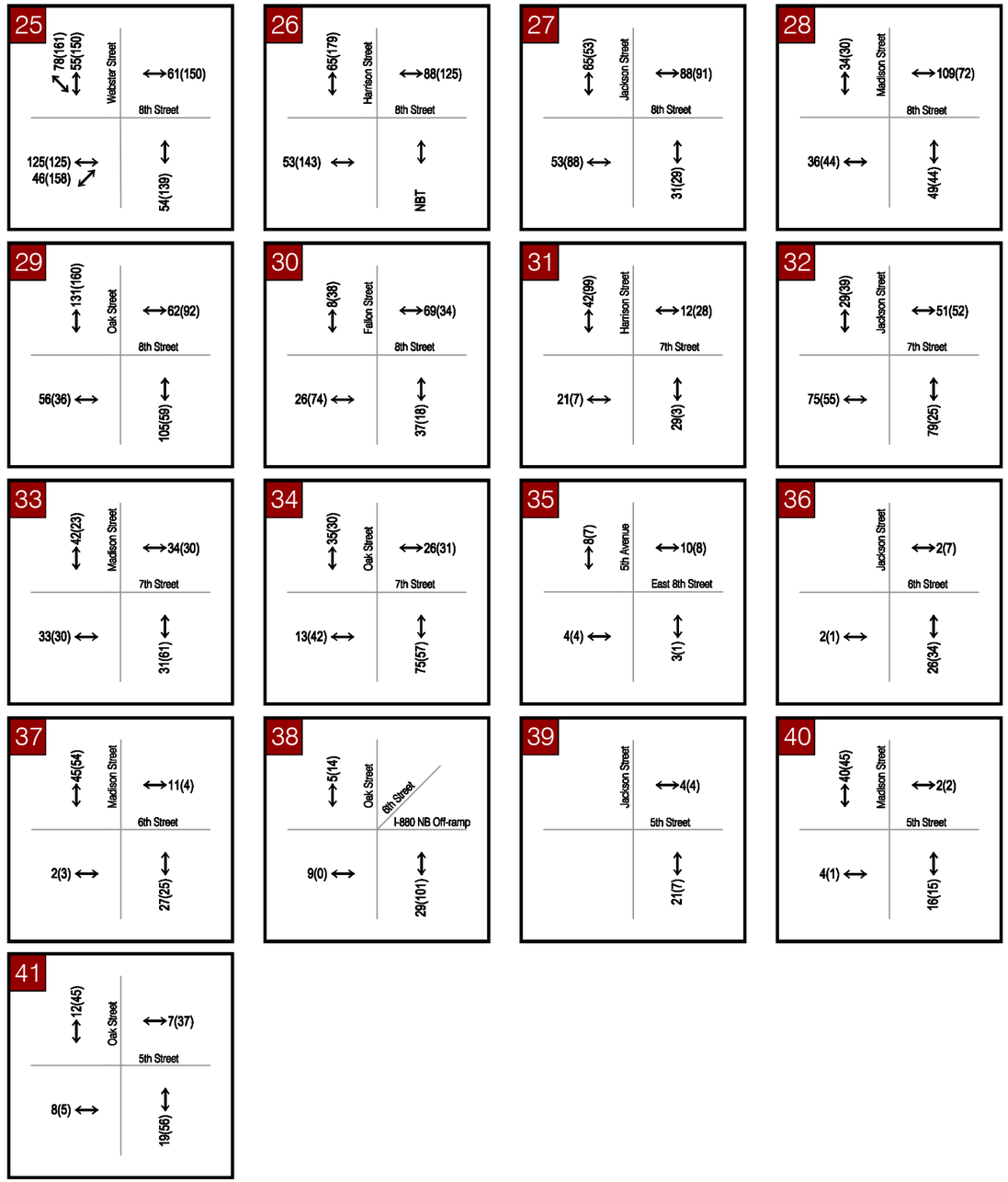


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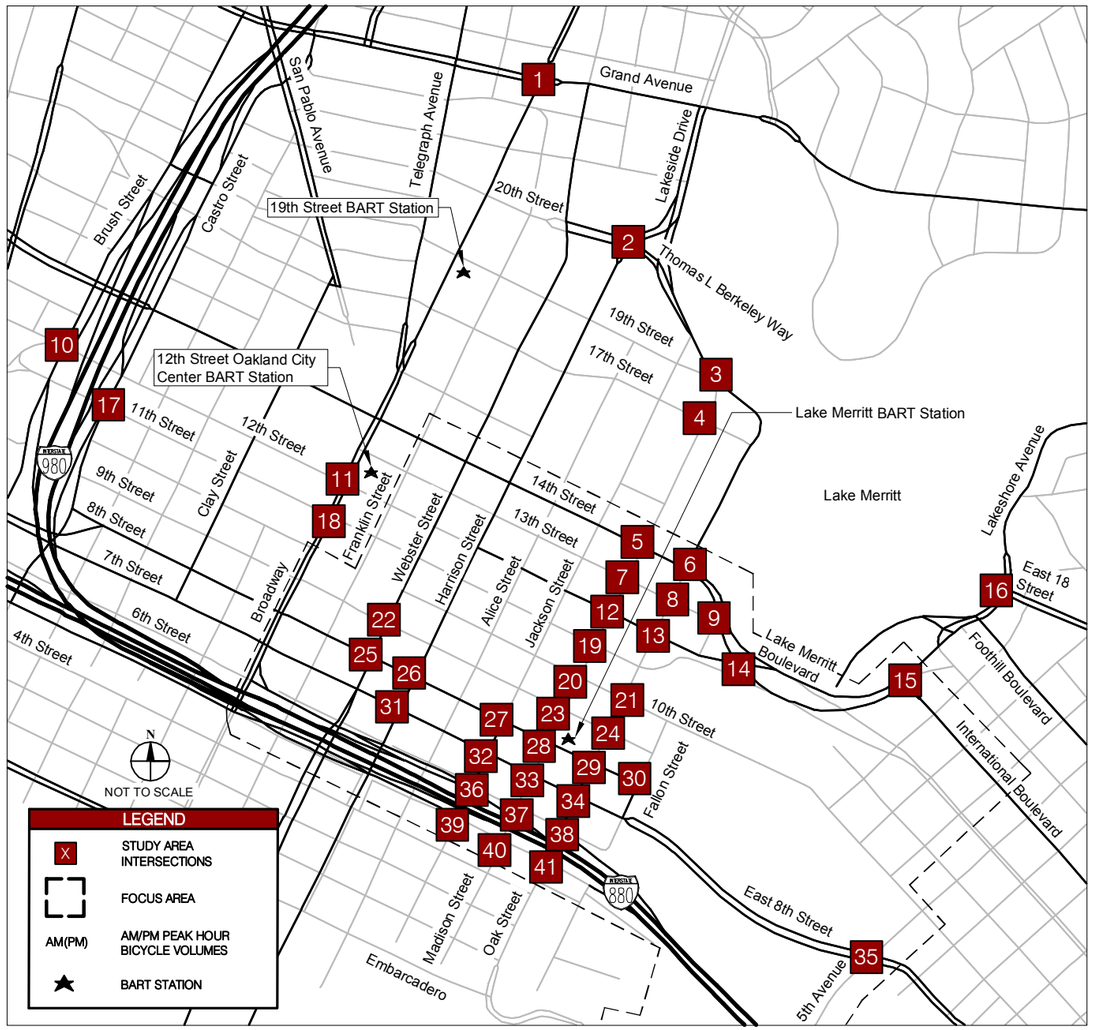
FIGURE 3.2-5 (continued)
EXISTING NO PROJECT CONDITION - AM/PM PEAK HOUR PEDESTRIAN VOLUMES
LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS



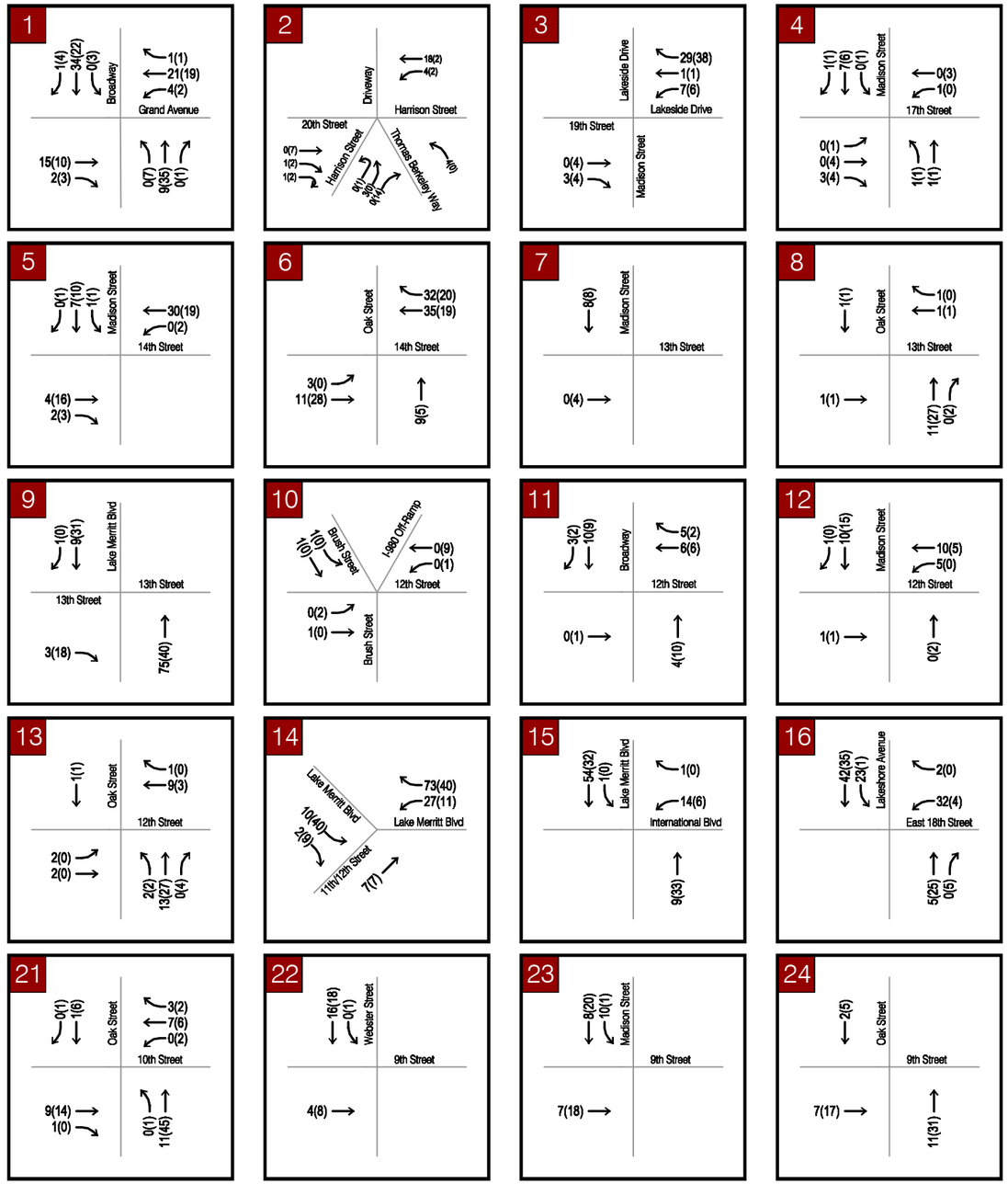


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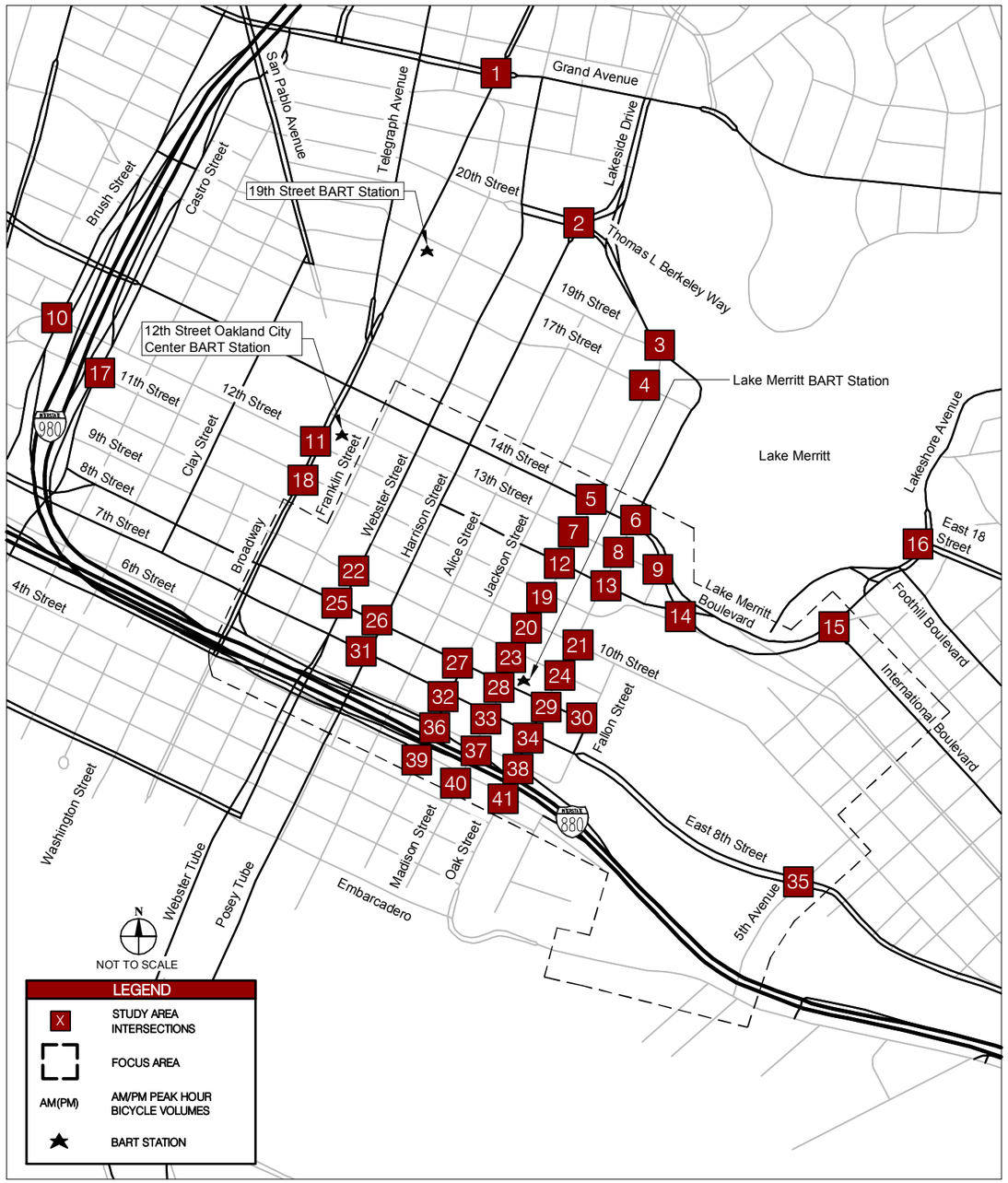
FIGURE 3.2-6
EXISTING NO PROJECT CONDITION - AM/PM PEAK HOUR BICYCLE VOLUMES
LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS



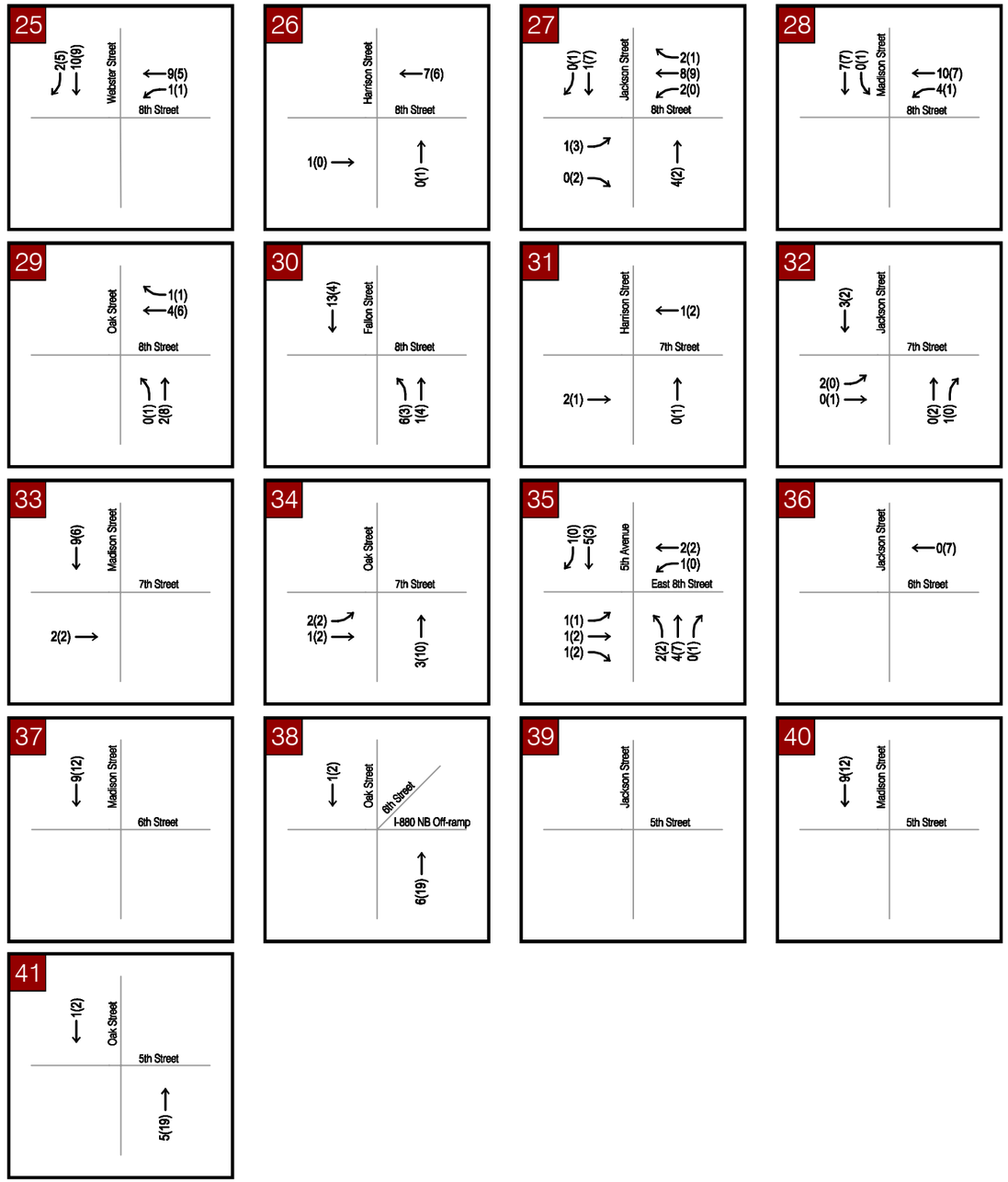


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FIGURE 3.2-6 (continued)
EXISTING NO PROJECT CONDITION - AM/PM PEAK HOUR BICYCLE VOLUMES
LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS

Approximately six percent of Lake Merritt BART patrons travel on bicycle to access the station.[8] This figure is significantly higher than the system average. Per the City of Oakland's Bicycle Master Plan, Class II bike lanes are proposed along Madison Street, Oak Street, and the 8th Street-9th Street couplet. These dedicated facilities would improve bicycle access in the station area and likely result in an increase in BART ridership at the Lake Merritt Bart Station when combined with additional bicycle parking.

In addition to bikeways, bicycle facilities include bicycle parking. Bicycle parking ranges from parking meters that are used for locking bicycles and U-racks along the street to bike racks and bike lockers located on the street level of the Lake Merritt Bart Station along Oak Street. There are 32 pay-to-use bicycle lockers located at the Lake Merritt Bart Station, of which roughly half were occupied on a weekday in early January. Bicycle racks at the Lake Merritt Bart Station were fully occupied, as were parking meters on 9th Street near Lake Merritt Bart Station. In some cases, bicycles are locked to street trees, reflecting the shortage of bike parking. Laney College has a number of bike racks on campus. Chinatown Commercial has bike racks on nearly every corner, about half of which were occupied.

Bicycle Master Plan

The *Bicycle Master Plan* is the citywide, long-range policy document for promoting bicycling as a viable means of transportation and recreation in Oakland. . The 2007 Bicycle Master Plan Update provides a planning vision for the next 20 years.[9]

According to the *2007 Bicycle Master Plan Update*, bicycle facilities in the City of Oakland are classified as follows:

- Bicycle Paths (Class 1) – these facilities are located off-street and can serve both bicyclists and pedestrians. Class 1 paths are typically 8 to 12 feet wide excluding shoulders and are generally paved.
- Bicycle Lanes (Class 2) – these facilities provide a dedicated (striped) area for bicyclists within the paved street width through the use of striping and signage. They are typically five to six feet wide.
- Bicycle Routes (Class 3) – These facilities are found along streets that do not provide sufficient width for dedicated bicycles lanes and are also provided on low-volume streets that have no bicycle lanes. The street is then designated as a bicycle route through the use of signage informing drivers to expect bicyclists, and to guide the cyclist along the route. The *2007 Oakland Bicycle Master Plan Update* also identifies the following variations on the standard bicycle route:
- Arterial Bicycle Routes (Class 3A) – Bicycle routes may be used on some arterial streets where bicycle lanes are not feasible and parallel streets do not provide adequate connectivity. These streets should promote shared use with lower posted speed limits (preferably 25 mph), shared lane bicycle stencils on the pavement, wide curb lanes, and signage.
- Bicycle Boulevards (Class 3B) – These are bicycle routes on residential streets that prioritize through trips for bicyclists. The route should appeal to cyclists of varied skill levels by providing direct connections on streets with low traffic volumes. The route should reduce delay to bicyclists by assigning right-of-way to travel on the route. Traffic calming should be introduced as needed to discourage drivers from using the boulevard as a through route. Intersections with major streets should be controlled by traffic signals with bicycle actuation.

[8] Lake Merritt Bart Station Final Summary Report, MIG, March 2006.

[9] Telecommunication with Jason Patton, Oakland Bicycle and Pedestrian Program Manager, with Steve Colman, Dowling Associates, 12/2/09.

The *2007 Bicycle Master Plan Update* proposes a Bikeway Network, which, when completed, will include approximately 216 miles of bikeways in Oakland. Most of the proposed bikeways are on-street bikeways and would be constructed within the curb-to-curb width of existing streets.

The City has limited funds for implementing the network above. $350,000 a year is available from Measure B funding, and another $300,000 to $350,000 per year is available from Transportation Development Act Article 3 funds. Bike lanes are also considered in any street resurfacing project.

Railroad Crossings

There is one major active rail line in proximity to the Planning Area; it is the Union Pacific Railroad (UPRR) line running along the Embarcadero. This track is also used by numerous Amtrak trains running between Oakland, San Jose, and Emeryville. The trackway is located in the median of the Embarcadero. The presence of active rail lines and their proximity to the Planning Area are not CEQA issues, per se; however, the CPUC has identified potential hazards associated with the queuing of vehicles on railroad tracks and the potential for resulting collisions. Therefore, a discussion of hazards associated with rail lines is included in the impact discussion, below.

Parking

As stated in the Oakland CEQA Thresholds for Significance Guidelines,10 the Court of Appeal has held that parking is not part of the permanent physical environment, that parking conditions change over time as people change their travel patterns, and that unmet parking demand created by a project need not be considered a significant environmental impact under CEQA unless it would cause significant secondary effects. However, the City, in its review of the proposed Plan, wants to ensure that the project's provision of parking spaces along with measures to lessen parking demand would result in minimal adverse effects to project occupants and visitors, and that any secondary effects would be minimized. Therefore, although not required by CEQA, parking conditions are evaluated in this EIR as a non-CEQA topic for informational purposes.

Parking within the Planning Area is considered in the traffic analysis for the following reasons;

- Vehicle trips are generated by the demand to access land uses. However, in urban places like the study area where land uses typically don't provide parking on-site, it is at off-site public and private parking facilities where vehicles trips originate and terminate. In the analysis, project traffic is assumed to be partly generated at the project site (residential uses) and partly generated at off-site parking facilities (non-residential uses).
- Many of the opportunity sites comprising the Lake Merritt Bart Station Area Plan "project" are surface parking lots or, in some cases, parking structures. When redeveloped, the existing vehicles parked in these facilities will be displaced. As the Lake Merritt Bart Station Area Plan builds out, off-site parking will become increasingly scarce and more costly. Scarcity and a higher cost for parking will cause displaced parkers to make one of the following choices:
    1. They will continue to search for parking within the study area regardless of cost;
    2. They will expand their search radius seeking less expensive and available parking outside the study area;
    3. They will shift their mode of travel away from driving, or:

[10] City of Oakland CEQA Thresholds of Significance Guidelines, City of Oakland, August 2011.

4. They will not make the trip at all if it is discretionary.

The choices made by displaced parkers affect future traffic volumes within the study area and therefore the traffic analysis included appropriate adjustments reflecting the displacement of existing parking demand.

Existing Parking Facilities

Existing parking facilities include the Lake Merritt Bart Station surface parking lots, metered on-street parking on most streets, and other off-street parking lots and garages. The Lake Merritt Bart Station provides two off-street parking lots—a surface lot between the BART headquarters and the Laney College entrance and a surface lot behind the Metro Center. These parking areas, reserved and enforced for BART customers, typically fill to capacity each morning by 7:00 AM. The Lake Merritt Bart Station is the only station in proximity to downtown that provides off-street parking.

On-street parking is provided on most streets within the Planning Area. Most of the street parking is metered and configured as parallel parking, but angled parking exists on 10th Street between Alice Street and Harrison Street adjacent to Lincoln Park. Additional major off-street parking lots include the 900-space Laney College parking lot accessed by 7th and Fallon Streets. The college charges for parking and restricts the use of the lot to students. The lot fills early and remains full during weekday class times. Parking lots are available beneath the I-880 freeway and three public parking structures are within the study area located at Madison and 12th Streets, Harrison and 12th Streets, and Webster and 13th Streets.

The Lake Merritt Station Area Plan considers parking under-utilized land and identifies most stand-alone parking lots and structures as opportunity sites for future development. The Plan's policies require sites containing large public parking facilities, such as Laney College's parking lot, to replace the displaced parking with more land-efficient structures when redeveloped. For smaller land parcels currently used as parking with the Planning Area, the Plan's policies "encourage" replacement parking when redeveloped. Despite the policy, many of the sites containing parking lots are too small to cost-effectively integrate structured public parking in addition to the parking required by development standards.

As described earlier, the redevelopment of small parking lots will collectively displace several hundred parking spaces over time as the Planning Area builds out. Although CEQA no longer considers changes in parking supply to be impacts to the physical environment, the impacts section of the analysis includes a discussion of the effect of displaced parking.

Existing Collision Data

Collision data within the Planning Area was evaluated to determine the effect the project might have on the existing transportation network. The collision information was obtained from the City of Oakland Traffic Engineering Department for the five years from July 1, 2005, to June 30, 2010. This data is included in Appendix D. The collision data was separated by study intersection and was only queried for intersection related collisions. The collisions were reviewed and study area related collisions were summarized for each intersection. **Table 3.2-1** summarizes the total number of collisions, the number of fatal collisions, the number of pedestrian related collisions, and the number of bicycle related collisions by intersection.

Table 3.2-1: Existing Collision Data Summary

No.	*Street #1*	*Street #2*	*Accidents (July 2005 – June 2010)*			
			Total	*Fatality*	*Ped*	*Bike*
1	Grand Ave	Broadway	32	0	0	5
2	20th St.	Harrison St	17	0	1	1
3	19th St	Madison St	6	0	2	0
4	17th St	Madison St	8	0	0	0
5	Madison St.	14th St.	30	0	3	0
6	Oak St.	14th St.	18	0	0	1
7	Madison St.	13th St	9	0	2	0
8	Oak St.	13th St	16	0	0	0
9	Lake Merritt Blvd	13th St	Future Intersection			
10	Brush St	12th St.	16	0	5	0
11	Broadway	12th St.	26	0	4	1
12	Madison St.	12th St.	13	0	2	0
13	Oak St.	12th St.	43	0	4	0
14	Lake Merritt Blvd	11th St.	Future Intersection			
15	1st Ave.	International Blvd.	0	0	0	0
16	Lakeshore Ave	18th St	14	0	0	1
17	Castro St	11th St.	49	0	1	1
18	Broadway	11th St.	20	0	3	0
19	Madison St.	11th St.	14	0	1	0
20	Madison St.	10th St.	14	0	1	1
21	Oak St.	10th St.	20	0	0	1
22	Webster St.	9th St.	29	0	3	1
23	Madison St.	9th St.	11	0	1	0
24	Oak St.	9th St.	7	0	0	0
25	Webster St.	8th St.	76	0	0	0
26	Harrison St.	8th St.	20	1	1	0
27	Jackson St.	8th St.	26	0	2	0
28	Madison St.	8th St.	24	0	2	0
29	Oak St.	8th St.	23	0	0	2
30	Fallon St.	8th St.	1	0	0	0
31	Harrison St.	7th St.	54	0	3	0
32	Jackson St.	7th St.	27	0	4	0
33	Madison St.	7th St.	34	0	0	0
34	Oak St.	7th St.	25	0	3	0
35	5th Ave.	7th St./8th St.	26	0	0	1
36	Jackson St.	6th St.	31	0	0	0

Table 3.2-1: Existing Collision Data Summary

No.	*Street #1*	*Street #2*	*Accidents (July 2005 – June 2010)*			
			Total	*Fatality*	*Ped*	*Bike*
37	Madison St.	6th St.	16	0	0	0
38	Oak St.	6th St.	16	0	0	0
39	Jackson St.	5th St.	20	0	2	0
40	Madison St.	5th St.	10	0	1	0
41	Oak St.	5th St.	18	0	0	0
42	Oak St.	Embarcadero	10	0	1	0
Total			**869**	**1**	**52**	**16**

Source: Kimley-Horn and Associates, Inc.

As shown in **Table 3.2-1**, there were a total of 869 incidents at the study intersections from July 2005 to June 2010. Of the 869 incidents at the study intersections, 52 incidents were pedestrian related and 16 were bicycle related. At the intersection of Harrison Street and 8th Street, one pedestrian related incident resulted in a fatality. The intersection of Webster Street and 8th Street incurred the highest number of incidents within this five-year period with 76 incidents.

EXISTING LEVEL OF SERVICE ANALYSIS

The term Level of Service (LOS) describes operating conditions a driver will experience while traveling on a particular street or at an intersection during a specific time interval. It ranges from LOS A (very little delay) to LOS F (long delays and congestion). The Analysis Methodology sub-section of the Impact Analysis section describes the concept of Level of Service analysis in more detail.

Existing Intersection Levels of Service

This section presents the traffic analysis of the study intersections under existing conditions. As noted previously, traffic patterns were atypical due to the construction of the 12th Street improvement project. Delays caused by the construction caused drivers to seek alternative routes or avoid driving through the area during peak periods. To quantify the change caused by the construction, the year 2012 traffic counts at intersections affected by the construction were compared to 2006 traffic counts for the City of Oakland Measure DD EIR Report 11 which conducted traffic counts during normal operations at the time.

The 12th Street construction resulted in lower traffic volumes in 2012 at the intersections along Madison Street and Oak Street from 7th Street to 14th Street, and along Lakeshore Avenue. Therefore, the existing levels of service reported in this analysis represent a temporary condition that is not considered typical.

[11] *City of Oakland Measure DD Implementation Project EIR*, LSA, July 2007.

Table 3.2-2: Existing Intersection Levels of Service

No.	*Intersection*	*Intersection Jurisdiction*	*LOS Threshold*	*Existing*			
				AM Peak		*PM Peak*	
				LOS	*Delay[1]*	*LOS*	*Delay[1]*
1	Grand Ave and Broadway	City of Oakland	E	B	20.0	C	29.9
2	20th St. and Harrison St	City of Oakland	E	E	69.4	D	36.7
3	19th St and Madison St	City of Oakland	E	A	4.1	A	3.6
4	17th St and Madison St	City of Oakland	E	A	7.4	A	7.8
5	Madison St. and 14th St	City of Oakland	E	B	10.8	C	21.1
6	Oak St. and 14th St	City of Oakland	E	B	12.0	B	11.2
7	Madison St. and 13th St	City of Oakland	E	B	11.5	B	10.9
8	Oak St. and 13th St	City of Oakland	E	A	7.9	B	18.0
9	Lake Merritt Blvd and 13th St	City of Oakland	E	B	19.9	D	37.3
10	Brush St and 12th St	City of Oakland	E	E	54.7	C	22.4
11	Broadway and 12th St	City of Oakland	E	C	20.6	C	24.5
12	Madison St. and 12th St	City of Oakland	E	B	11.2	B	15.5
13	Oak St. and 12th St	City of Oakland	E	B	14.1	B	13.1
14	Lake Merritt Blvd and 11th St	City of Oakland	E	B	10.6	A	7.8
15	1st Ave. and International Blvd	City of Oakland	E	E	64.6	B	15.1
16	Lakeshore Ave and 18th St	City of Oakland	E	C	21.3	C	25.1
17	Castro St and 11th St	City of Oakland	E	C	27.2	C	26.8
18	Broadway and 11th St	City of Oakland	E	B	15.8	C	20.0
19	Madison St. and 11th St	City of Oakland	E	B	10.8	B	13.7
20	Madison St. and 10th St	City of Oakland	E	B	16.8	A	8.7
21	Oak St. and 10th St	City of Oakland	E	B	12.8	A	9.8
22	Webster St. and 9th St	City of Oakland	E	C	25.1	C	29.3
23	Madison St. and 9th St	City of Oakland	E	B	10.2	A	8.7
24	Oak St. and 9th St	City of Oakland	E	A	5.0	A	9.4
25	Webster St. and 8th St	City of Oakland	E	C	20.6	B	17.3
26	Harrison St. and 8th St	City of Oakland	E	A	9.0	B	11.1
27	Jackson St. and 8th St	City of Oakland	E	B	13.5	B	13.9
28	Madison St. and 8th St	City of Oakland	E	A	5.3	A	9.9
29	Oak St. and 8th St	City of Oakland	E	A	7.7	B	16.0
30	Fallon St. and 8th St	City of Oakland	E	A	0.0	A	0.0
31	Harrison St. and 7th St	City of Oakland	E	A	5.5	A	7.1
32	Jackson St. and 7th St	City of Oakland	E	B	19.8	B	15.0
33	Madison St. and 7th St	City of Oakland	E	B	17.2	B	11.9
34	Oak St. and 7th St	City of Oakland	E	B	12.7	B	16.6
35	5th Ave. and 7th St/8th St	City of Oakland	E	B	13.6	B	15.3

Table 3.2-2: Existing Intersection Levels of Service

No.	*Intersection*	*Intersection Jurisdiction*	*LOS Threshold*	*Existing*			
				AM Peak		*PM Peak*	
				LOS	*Delay[1]*	*LOS*	*Delay[1]*
36	Jackson St. and 6th St	City of Oakland	E	B	15.9	B	18.5
37	Madison St. and 6th St	City of Oakland	E	A	7.7	A	9.5
38	Oak St. and 6th St	City of Oakland	E	B	11.1	A	9.0
39	Jackson St. and 5th St	City of Oakland	E	B	15.9	C	25.5
40	Madison St. and 5th St	City of Oakland	E	A	7.1	B	13.2
41	Oak St. and 5th St	City of Oakland	E	B	12.3	D	43.1
42	NA (Segment analysis below)						
City of Alameda Intersections							
43	Constitution & Marina Village	Alameda	D	B	13.8	B	14.3
44	Constitution Wy & Atlantic Av	Alameda	D	B	13.8	B	12.9
45	Webster St & Atlantic Av	Alameda	D	C	32.9	C	26.4

Note: Locations operating at unacceptable levels are shown in **BOLD**.

[1] Delay is presented in seconds per vehicle. ΔDelay represents the change in delay (seconds per vehicle) between the with and without Project scenarios.

Source: Kimley-Horn and Associates, Inc.

For signalized intersections located within (or that provide access to) Downtown Oakland, which is generally defined as the area bounded by West Grand Ave, Lake Merritt/Channel Park, the Oakland Estuary, and I-980/Brush Street, new development would need to cause an intersection's peak hour Level of Service to degrade to worse than LOS E (i.e., LOS F) for an impact to be considered significant. The results of the existing conditions analysis is presented in **Table 3.2-2**, along with the minimum jurisdictional standard for acceptable levels of service. Additional details of this analysis are provided in **Appendix D**.

As shown in the table, all of the study intersections function within established Level of Service thresholds. Existing levels of service were verified with field measurements of queue and delay.

Existing Roadway Segment Levels of Service

Traffic capacity was evaluated on the Oak Street roadway segment of between 2nd Street and Embarcadero under existing traffic conditions. This two-way roadway analysis uses peak hour directional traffic volumes from the south leg of the intersection of Oak Street and 2nd Street. The capacity of the roadway is determined using a roadway analysis methodology consistent with the 2000 Highway Capacity Manual[12] which considers functional class, signal spacing density, signal timing priorities given to the major streets, effective green time for critical movements, area type, number of lanes, divided or undivided, and the presence of left-turn bays. The results in **Table 3.2-3**, shows that the Oak Street segment currently operates within Oakland's Level of Service threshold.

[12] The Florida Department of Transportation (FDOT) develops roadway capacity tables and associated software based on the analytical methods in the 2000 Highway Capacity Manual (Transportation Research Board Special Report 209).

Table 3.2-3 Existing Roadway Segment Level of Service

Street Segment – Oak Street	*Segment Description*	*Criteria*	*Existing*			
			AM Peak		*PM Peak*	
			Volume	*LOS*	*Volume*	*LOS*
2nd Street to Embarcadero	4 Lanes / Divided	E	435	C	710	C

Source: Kimley-Horn and Associates, Inc.

Existing Freeway Segment Levels of Service

Traffic operations were evaluated on freeway segments in the Planning Area. Freeway volumes for the Existing scenario were calculated by taking the incremental difference in the Alameda CTC model volumes from year 2020 and year 2005 on each freeway segment to determine an annual growth rate. The annual growth rate was then applied to the existing Caltrans counts taken in 2011 to grow to Existing 2012.

Table 3.2-4: Existing Freeway Segment Levels of Service

Freeway Segment	*LOS Threshold*	*Existing*			
		AM Peak		*PM Peak*	
		LOS	*V/C*	*LOS*	*V/C*
I-880 - 5th Avenue to Oak Street					
Northbound	E	**F**	**1.05**	E	0.99
Southbound	E	D	0.90	**F**	**1.01**
I-880 - Oak Street to Jackson Street					
Northbound	E	E	0.96	E	0.92
Southbound	E	D	0.86	E	0.95
I-880 - Jackson Street to I-980					
Northbound	E	D	0.85	D	0.83
Southbound	E	C	0.64	C	0.66
I-980 – I-880 to 14th Street					
Eastbound	E	D	0.83	D	0.83
Westbound	E	B	0.51	B	0.50
I-980 - 14th Street to 18th Street					
Eastbound	E	C	0.65	C	0.75
Westbound	E	B	0.45	A	0.33

Notes: Locations operating at unacceptable levels are shown in **BOLD**.

Freeway segments are analyzed using Highway Capacity Manual (HCM) planning methodology for Basic Freeway Segments, in which volume to capacity (V/C) is used as the performance measure for determining Level of Service.

Source: Kimley-Horn and Associates, Inc.

The analysis results shown in **Table 3.2-4**, indicate that all freeway segments currently satisfy the state's Level of Service threshold, except at the following locations:

- I-880 Northbound from 5th Avenue to Oak Street (AM Peak)
- I-880 Southbound from 5th Avenue to Oak Street (PM Peak)

Note that the above freeway segments also fail to satisfy Caltrans' Level of Service threshold without the addition of Project traffic. Additional details of this analysis are provided in **Appendix D**.

Existing Travel Times on AC Transit Bus Routes

Traffic operations were evaluated on 7th Street, 8th Street, Oak Street, and Madison Street to assess the effect of the Lake Merritt Station Area Plan on the AC Transit bus travel times. Travel times were calculated in the Existing condition and are presented in **Table 3.2-5**. As shown in **Table 3.2-5**, the maximum travel time in the AM Peak is 197 seconds going westbound on 8th Street. In the PM peak, the maximum travel time is 193 seconds along 8th Street.

Table 3.2-5: Existing AC Transit Bus Travel Times

Arterial	*From*	*To*	*Direction*	*Existing*	
				AM Peak	*PM Peak*
				Travel Time (secs)	
7th Street	Harrison Street	Oak Street	EB	88	89
8th Street	Fallon Street	Webster Street	WB	197	193
Madison Street	11th Street	7th Street	SB	94	94
Oak Street	7th Street	12th Street	NB	99	108

Source: Kimley-Horn and Associates, Inc.

REGULATORY SETTING

Federal

The US Department of Transportation (USDOT) provides a number of grant programs, primarily for the construction and upgrading of major highways and transit facilities. Many of these grants are administered by the state and regional governments. Use of federal grant funding also invokes the National Environmental Protection Act (NEPA) in some cases. The Federal Highway Administration (FHWA) sets design standards (such as interchange spacing) for interstate highways, such as Interstate 880. The Federal Railroad Administration within the USDOT establishes safety rules regarding the operation of railroads (e.g., maximum train speeds, maximum allowed highway crossing blockage time).

State and Regional

The California Department of Transportation (Caltrans) has jurisdiction over state highways in the Planning Area. Caltrans constructs and maintains all state highways, and sets design standards that are often copied by local government. The Metropolitan Transportation Commission (MTC) is the state-designated metropolitan planning organization for the nine-county San Francisco Bay Area; it has authority for regional planning, distributing and administering federal and state funds for all

modes of transportation, and assuring that projects are consistent with the Regional Transportation Plan.

Caltrans Authority of the State Highway System

Caltrans is the authority for building, maintaining, and operating the State Highway system in California. Their goal is to allow for the safe and efficient use of the state transportation system for all users. Caltrans has set targets for intersection Level of Service and freeway Level of Service. These targets are presented in the Caltrans Guide for the Preparation of Traffic Impact Studies[13]. This document establishes procedures to uniformly review the operational standards of Caltrans maintained facilities in terms of measures of effectiveness. The Caltrans facilities located within the Lake Merritt Station Area Plan include Interstate I-880, Interstate I-980, and the associated freeway on-ramps and off-ramps connecting to the City of Oakland street network.

Statewide Transportation Improvement Plan (STIP)

The Statewide Transportation Improvement Plan is a capital improvement program that plans transportation projects related to state facilities in California for the next five years. The program is updated every two years with new construction projects as more funding is provided. The California Transportation Commission approves the fund estimate and then Caltrans and regional planning agencies submit plans for transportation improvement projects. If the projects are programmed in the STIP, then relevant agencies can begin the implementation process.

California's Complete Streets Law

The Complete Streets Law was signed in by Governor Schwarzenegger as Assembly Bill 1358 and requires that cities include the needs of all users, including bicyclists and pedestrians, when updating local General Plans. Caltrans specifically adopted Deputy Directive 64, which addresses the needs of people of all ages and abilities concerning transportation planning. It also recognizes that transportation improvement projects are opportunities to improve safety, access, and mobility for motorists, bicyclists, pedestrians, and transit users. The Complete Streets Implementation Action Plan[14] provides an overview of the program.

California Public Utilities Commission (CPUC)

CPUC has regulatory oversight authority over a number of design and operational aspects of railroads and at-grade highway crossings in the state. CPUC also administers a limited fund for constructing highway/rail grade separations.

Metropolitan Transportation Commission (MTC)

The Metropolitan Transportation Commission is designated by the state as the regional transportation planning agency for the nine-county San Francisco Bay Area. MTC is responsible for updating the Regional Transportation Plan, which plans the future transit, highway, roadway, railroad, bicycle and pedestrian facilities. MTC portions out federal funding to local agencies for transportation projects and determines their compliance with the Regional Transportation Plan.

[13] Guide for the Preparation of Traffic Impact Studies, Caltrans, December 2002.

[14] Complete Streets Implementation Action Plan, Caltrans, February 2010.

Regional Transportation Plan (RTP)

MTC has recently updated its Regional Transportation Plan in 2009. The recently adopted plan called *Transportation 2035 Plan for the San Francisco Bay Area*[15] specifies how future transportation spending will occur in the next 25 years. The new plan focuses on providing equal transportation opportunities to all users. One of the major goals of the plan is to provide incentives to cities and counties who promote growth adjacent to transit in urban communities in the Bay Area. Another main goal was to reduce greenhouse gas emissions as it relates to transportation. A major transit project discussed in the Transportation 2035 Plan is the Alameda County BRT project which runs through the project's study area.

MTC: Transit-Oriented-Development and Complete Streets Policies

MTC adopted Resolution 3434 in July 2005, which discusses its policy on Transit-Oriented-Development (TOD) for regional transit expansion projects. The goal of the policy is to improve the cost-benefits of transit expansions by ensuring those transportation agencies, local jurisdictions, and the public work together. The policy will specify corridor-level thresholds to determine minimum residential and commercial development adjacent to transit stations. The policy will also address key issues within TOD's, such as land use changes, access improvements, circulation improvements, and multi-modal design features.

In 2006 MTC adopted Resolution 3765 that states that future projects consider bicycle and pedestrian needs. Associated with this is a Routine Accommodation checklist, which developers must complete at the beginning stages of the project to ensure accommodation of all transportation modes.

Bay Area Rapid Transit (BART) District

BART provides regional access throughout the Bay Area. BART trains provide direct access between Contra Costa County, Alameda County, San Francisco County, and San Mateo County. Within the study area the Lake Merritt Bart Station provides the primary access to the BART system for residents, workers, students and visitors.

BART Policy on Joint Development and Replacement Parking

BART prepared a policy[16] on replacing BART parking in 2005 to address the growing issues that BART will face in the future to meet user demands. Ridership is expected to grow for BART in the coming years, which will require additional parking. Transit-Oriented-Development also creates new issues to portioning out available land adjacent to BART stations. This policy provides guidelines on how to address the issues, a methodology for access and replacement parking analysis, and sample case studies. These policies will help to govern the redevelopment of the Lake Merritt Bart Station site.

BART Station Access Improvement Plans

BART developed the BART Station Access Guidelines[17] in April 2003. This document describes the process to which BART patrons arrive at the BART station and leave to their final destinations.

[15] Transportation 2035 Plan for the San Francisco Bay Area, MTC, April 2009.

[16] Replacement Parking for Joint Development: An Access Policy Methodology, Richard Wilson, April 2005.

[17] BART Station Access Guidelines, Nelson/Nygaard Consulting Associates, April 2003.

These guidelines are meant to incorporate planning of the user's entire journey with partnering of local agencies to make the transition from BART to the final destination a smooth transition. Policies regarding walking, bicycling, transit, drop-off and pick-up, taxi, and parking are recommended throughout the document.

Alameda County Transportation Commission (ACTC)

Alameda CTC is the governing agency for the oversight on transportation projects and planning in Alameda County. These projects improve the highway corridors, arterial street network, public transit, and pedestrian and bicycle facilities. Long-range planning is outlined in the Alameda Countywide Transportation Plan[18] (CWTP), which looks at a 25-year horizon for the Alameda County transportation system. The Alameda CTC also develops the Transportation Expenditure Plan[19] to allocate necessary funding for future capital projects. The Alameda CWTP states the main goals are for the transportation system to be:

- Multimodal
- Accessible, Affordable, and Equitable for people of all ages, incomes, abilities, and geographies
- Integrated with land use patterns and local decision-making
- Connected across the county, within and across the network of streets, highways and transit, bicycle and pedestrian routes
- Reliable and Efficient
- Cost Effective
- Well Maintained
- Safe
- Supportive of a Healthy and Clean Environment

Alameda County Congestion Management Program

The Alameda County Congestion Management Program (CMP) specifically lays out the strategies to implement the Countywide Transportation Plan. The CMP[20] is updated every two years and sets guidelines on Level of Service standards, analysis of land uses on the transportation network, managing the transportation demand, and developing a seven-year Capital Improvement Program (CIP). The program also develops a travel demand model to assess the future impacts in the Cumulative year.

City of Oakland Plans, Policies and Regulations

The City of Oakland is the primary local agency for determining the future success of the downtown Oakland community. The City has a General Plan that outlines the goals for future sustainable growth and the City of Oakland Municipal codes enforce the rules and regulations. Several additional Oakland regulatory documents have relevant authority within the Lake Merritt Station Area planning area and are described in the following sections.

City of Oakland General Plan

The City of Oakland General Plan looks to address transportation needs as it relates to the expected increase in shipping and distribution in Oakland in the near future, the travel demand for the high

[18] Alameda Countywide Transportation Plan, Nelson/Nygaard Consulting Associates, June 2012.

[19] 2012 Alameda County Transportation Expenditure Plan, Alameda CTC, May 2012.

[20] *Congestion Management Plan 2011*, Alameda CTC, December 2011.

proportion of non-auto population in Oakland, and the effective coordination of transportation related agencies in planning the Oakland network. Outlined in the Policy Framework section of the General Plan is the Downtown Showcase. The City of Oakland aims to:

- Promote the downtown's position as a dynamic economic center for the region.
- Serve as a primary communications, office, government, high technology, retail, entertainment, and transportation hub for Northern California.
- Become a premier location in the region for urban residential living, by building upon existing neighborhoods, and by promoting and expanding a pedestrian-friendly, diverse and exciting range of opportunities for housing, social, cultural, and the arts. Further develop, support, revitalize, and promote the distinct, attractive urban character of each of the downtown districts, and the respect historic resources.

The Land Use and Transportation Element of the City of Oakland General Plan[21] mentions objectives and policies that are mirrored in the Lake Merritt Station Area Plan. Objectives and policies that the Lake Merritt Station Area Plan promotes include:

- Objective T2 – Provide mixed use, Transit-Oriented-Development that encourages public transit use and increases pedestrian and bicycle trips at major transportation nodes. The Lake Merritt Bart Station is specifically mentioned as a potential redevelopment site.
- Objective T3 – Provide a hierarchical network of roads that reflects desired land use patterns and strives for acceptable levels of service at intersections. In addition, a certain level of traffic congestions may be desirable in some locations to slow traffic and promote a more bicycle and pedestrian-oriented environment.
- Objective T4 – Increase use of alternative modes of transportation.
- Objective T6 – Make streets safe, pedestrian accessible, and attractive.
- Objective T7 – Reduce air pollutants caused by vehicles.

City of Oakland Bicycle Master Plan

The City of Oakland Bicycle Master Plan[22] discusses goals and objectives related to the Lake Merritt Station Area Plan. These include:

- Goal 1 – Infrastructure: Develop the physical accommodations, including a network of bikeways and support facilities, to provide for safe and convenient access by bicycle.
  - BMP Policy 1A – Bikeway Network: Develop and improve Oakland's bikeway network.
  - BMP Policy 1B – Routine accommodation: Address bicycle safety and access in the design and maintenance of all streets.
  - BMP Policy 1C – Safe Routes to Transit: Improve bicycle access to transit, bicycle parking at transit facilities, and bicycle access on transit vehicles.
- Goal 3 – Coordination: Provide a policy framework and implementation plan for the routine accommodation of bicyclists in Oakland's projects and programs.

[21] *Land Use and Transportation Element*, City of Oakland, 1998.

[22] *City of Oakland Bicycle Master Plan*, City of Oakland, December 2007.

City of Oakland Pedestrian Master Plan

The City of Oakland Pedestrian Master Plan[23] discusses goals and objectives related to the Lake Merritt Station Area Plan. These include:

- Goal 1 – Pedestrian Safety: Create a street environment that strives to ensure pedestrian safety.
  - PMP Policy 1.1 Crossing Safety: Improve pedestrian crossings in areas of high pedestrian activity where safety is an issue.
  - PMP Policy 1.2 Traffic Signals: Use traffic signals and their associated features to improve pedestrian safety at dangerous intersections.
- Goal 2 – Pedestrian Access: Develop an environment throughout the City – prioritizing routes to school and transit – that enables pedestrians to travel safely and freely.
  - PMP Policy 2.1 Route Network: Create and maintain a pedestrian route network that provides direct connections between activity centers.
  - PMP Policy 2.3 Safe Routes to Transit: Implement pedestrian improvements along major AC Transit lines and at BART stations to strengthen connections to transit.

City of Oakland Complete Streets Policy

The City of Oakland adopted the Complete Street Policy to Further Ensure that Oakland Streets Provide Safe and Convenient Travel Options for all Users in January 2013 (City Council Resolution 84204 C.M.S.). This resolution, consistent with the California Complete Streets Act of 2008, directs the City of Oakland to plan, design, construct, operate, and maintain the street network in the City to accommodate safe, convenient, comfortable travel for all modes, including pedestrians, bicyclists, transit users, motorists, trucks, and emergency vehicles.

City of Oakland Municipal Code

The City of Oakland Municipal Code states all the rules and regulation in Title 10 – Vehicles and Traffic. Provisions related to traffic control devices, speed limits, parking, and vision obscurement at intersections are stated in this section.

City of Oakland's Standard and Uniformly Applied Conditions of Approval (SCAs)

The City of Oakland's Standard and Uniformly Applied Conditions of Approval (Standard Conditions of Approval) would apply to development under the Lake Merritt Station Area Plan.

These Development Standards apply to ALL projects involving 50 or more new residential units or 50,000 sq. ft. or more of new non-residential space.

SCA 20: Improvements in the Public Right-of-Way (General)

Approved prior to the issuance of a P-job or building permit

a. The project applicant shall submit Public Improvement Plans to Building Services Division for adjacent public rights-of-way (ROW) showing all proposed improvements and compliance with the conditions and/or mitigations and City requirements including but not limited to curbs, gutters, sewer

[23] *City of Oakland Pedestrian Master Plan*, City of Oakland, November 2002.

laterals, storm drains, street trees, paving details, locations of transformers and other above ground utility structures, the design specifications and locations of facilities required by the East Bay Municipal Utility District (EBMUD), street lighting, on-street parking and accessibility improvements compliant with applicable standards and any other improvements or requirements for the project as provided for in this Approval. Encroachment permits shall be obtained as necessary for any applicable improvements- located within the public ROW.

b. Review and confirmation of the street trees by the City's Tree Services Division is required as part of this condition and/or mitigations.
c. The Planning and Zoning Division and the Public Works Agency will review and approve designs and specifications for the improvements. Improvements shall be completed prior to the issuance of the final building permit.
d. The Fire Services Division will review and approve fire crew and apparatus access, water supply availability and distribution to current codes and standards.

SCA 21: Improvements in the Public Right-of-Way (Specific)

Approved prior to the issuance of a grading or building permit. Final building and public improvement plans submitted to the Building Services Division shall include the following components:

a. Install additional standard City of Oakland streetlights.
b. Remove and replace any existing driveway that will not be used for access to the property with new concrete sidewalk, curb and gutter.
c. Reconstruct drainage facility to current City standard.
d. Provide separation between sanitary sewer and water lines to comply with current City of Oakland and Alameda Health Department standards.
e. Construct wheelchair ramps that comply with Americans with Disabilities Act requirements and current City Standards.
f. Remove and replace deficient concrete sidewalk, curb and gutter within property frontage.
g. Provide adequate fire department access and water supply, including, but not limited to currently adopted fire codes and standards.

SCA 25. Parking and Transportation Demand Management

Prior to issuance of a final inspection of the building permit.

The applicant shall submit for review and approval by the Planning and Zoning Division a Transportation Demand Management (TDM) plan containing strategies to reduce on-site parking demand and single occupancy vehicle travel. The applicant shall implement the approved TDM plan. The TDM shall include strategies to increase bicycle, pedestrian, transit, and carpools/vanpool use. All four modes of travel shall be considered. Strategies to consider include the following:

a. Inclusion of additional bicycle parking, shower, and locker facilities that exceed requirements.
b. Construction of bike lanes per the Bicycle Master Plan; Priority Bikeway Projects.
c. Signage and striping on-site to encourage bike safety.
d. Installation of safety elements per the Pedestrian Master Plan (such as cross walk striping, curb ramps, count down signals, bulb outs, etc.) to encourage convenient crossing at arterials.
e. Installation of amenities per the Pedestrian Master Plan such as lighting, street trees, trash receptacles and any applicable streetscape plan.
f. Direct transit sales or subsidized transit passes.
g. Guaranteed ride home program.
h. Pre-tax commuter benefits (checks).
i. On-site car-sharing program (such as City Car Share, Zip Car, etc.).

j. On-site carpooling program.
k. Distribution of information concerning alternative transportation options.
l. Parking spaces sold/leased separately.
m. Parking management strategies; including attendant/valet parking and shared parking spaces.

These Development Standards apply to ALL construction projects.

SCA 33. Construction Traffic and Parking

Prior to the issuance of a demolition, grading or building permit.

The project applicant and construction contractor shall meet with appropriate City of Oakland agencies to determine traffic management strategies to reduce, to the maximum extent feasible, traffic congestion and the effects of parking demand by construction workers during construction of this project and other nearby projects that could be simultaneously under construction. The project applicant shall develop a construction management plan for review and approval by the Planning and Zoning Division, the Building Services Division, and the Transportation Services Division. The plan shall include at least the following items and requirements:

a. A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes.
b. Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures will occur.
c. Location of construction staging areas for materials, equipment, and vehicles at an approved location.
d. A process for responding to, and tracking, complaints pertaining to construction activity, including identification of an onsite complaint manager. The manager shall determine the cause of the complaints and shall take prompt action to correct the problem. Planning and Zoning shall be informed who the Manager is prior to the issuance of the first permit issued by Building Services.
e. Provision for accommodation of pedestrian flow.

Major Project Cases:

a. Provision for parking management and spaces for all construction workers to ensure that construction workers do not park in on-street spaces or insert name of street.
b. Any damage to the street caused by heavy equipment, or as a result of this construction, shall be repaired, at the applicant's expense, within one week of the occurrence of the damage (or excessive wear), unless further damage/excessive wear may continue; in such case, repair shall occur prior to issuance of a final inspection of the building permit. All damage that is a threat to public health or safety shall be repaired immediately. The street shall be restored to its condition prior to the new construction as established by the City Building Inspector and/or photo documentation, at the applicant's expense, before the issuance of a Certificate of Occupancy.
c. Any heavy equipment brought to the construction site shall be transported by truck, where feasible.
d. No materials or equipment shall be stored on the traveled roadway at any time.
e. Prior to construction, a portable toilet facility and a debris box shall be installed on the site, and properly maintained through project completion.
f. All equipment shall be equipped with mufflers.
g. Prior to the end of each work day during construction, the contractor or contractors shall pick up and properly dispose of all litter resulting from or related to the Project, whether located on the property, within the public rights-of-way, or properties of adjacent or nearby neighbors.

The following analysis is required during individual development project review and implementation prior to project completion for all construction projects located within ¼ mile of an at-grade railroad crossing, generates significant vehicle, bicyclist, and pedestrian traffic, and a Transportation Impact Study (TIS) is otherwise required to be prepared for the proposed Plan.

SCA G. Railroad Crossings

Analysis required during individual development project review; implementation prior to project completion.

The Transportation Impact Study (TIS) otherwise required to be prepared for the project, in accordance with standard City policies and practices, must evaluate potential impacts to at-grade railroad crossing resulting from project-related traffic. In general, the major types of impacts to consider are collisions between trains and vehicles, trains and pedestrians, and trains and bicyclists. The TIS should include an analysis of potential queuing onto railroad tracks. A "Diagnostic Review" must be undertaken and include specific traffic elements, such as roadway and rail description, accident history, traffic volumes (all modes, including pedestrian and bicyclist crossing movements), train volumes, vehicular speeds, train speeds, and existing rail and traffic control.

Where the TIS identifies potentially substantially dangerous crossing conditions at at-grade railroad crossings caused by the project, measures relative to the project's traffic contribution to the crossings may be applied through project redesign and/or incorporation of the appropriate measures to reduce potential adverse impacts caused by specific housing development projects. These measures may include, without limitation, the following:

a. Installation of grade separations at crossings, i.e., physically separating roads and railroad tracks by constructing overpasses or underpasses
b. Improvements to warning devices at existing highway rail crossings that are impacted by project traffic
c. Installation of additional warning signage
d. Improvements to traffic signaling at intersections adjacent to crossings, e.g., signal preemption
e. Installation of median separation to prevent vehicles from driving around railroad crossing gates
f. Where sound walls, landscaping, buildings, etc. would be installed near crossings, maintaining the visibility of warning devices and approaching trains
g. Prohibition of parking within 100 feet of the crossings to improve the visibility of warning devices and approaching trains
h. Construction of pull-out lanes for buses and vehicles transporting hazardous materials
i. Installation of vandal-resistant fencing or walls to limit the access of pedestrians onto the railroad right-of-way
j. Elimination of driveways near crossings
k. Increased enforcement of traffic laws at crossings
l. Rail safety awareness programs to educate the public about the hazards of highway-rail grade crossings
m. Any proposed improvements must be coordinated with California Public Utility Commission (CPUC) and affected railroads and all necessary permits/approvals obtained, including a GO 88-B Request (Authorization to Alter Highway Rail Crossings).

Impact Analysis

CEQA THRESHOLDS OF SIGNIFICANCE

This section describes the standards, criteria, and quantitative triggers established by the City of Oakland and other agencies as appropriate for determining project impacts on transportation facilities under CEQA. The relevant criteria for transportation impacts are based on the City of Oakland CEQA

thresholds of Significance Guidelines,[24] except as specified below, with regard to significance criteria for City of Alameda intersections and significance criteria for freeway segments, Congestion Management Program and Metropolitan Transportation System facilities.

City of Oakland Thresholds

Per the City of Oakland's thresholds, the project would have a significant impact on the environment if it would conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit. The more specific criteria are described below.

Traffic Load and Capacity Thresholds[25]

The project would have a significant impact on the environment if it would:

1. At a study, signalized intersection which is located ***outside the Downtown area and that does not provide direct access to Downtown***, the project would cause the motor vehicle level of service (LOS) to degrade to worse than LOS D (i.e., LOS E or F) and cause the total intersection average vehicle delay to increase by four (4) or more seconds;
2. At a study, signalized intersection which is located ***within the Downtown area or that provides direct access to Downtown***, the project would cause the motor vehicle LOS to degrade to worse than LOS E (i.e., LOS F) and cause the total intersection average vehicle delay to increase by four (4) or more seconds;
3. At a study, signalized intersection ***outside the Downtown area and that does not provide direct access to Downtown*** where the motor vehicle level of service is LOS E, the project would cause the total intersection average vehicle delay to increase by four (4) or more seconds;
4. At a study, signalized intersection ***outside the Downtown area and that does not provide direct access to Downtown*** where the motor vehicle level of service is LOS E, the project would cause an increase in the average delay for any of the critical movements of six (6) seconds or more;
5. At a study, signalized intersection for all areas where the level of service is LOS F, the project would cause (a) the overall volume-to-capacity ("V/C") ratio to increase 0.03 or more or (b) the critical movement V/C ratio to increase 0.05 or more;
6. At a study, unsignalized intersection the project would add ten (10) or more vehicles to the critical movement and after project completion satisfy the California Manual on Uniform Traffic Control Devices (MUTCD) peak hour volume traffic signal warrant;

Thresholds for Freeway and Roadway Segments, Congestion Management Program (CMP) and Metropolitan Transportation System (MTS) Facilities

Analysis of CMP facilities conforms to the requirements of the Land Use Analysis Program of the CMP. Analysis of the CMP network evaluates roadway and transit route segments using the significance

[24] City of Oakland CEQA Thresholds of Significance Guidelines, City of Oakland, May 22, 2013.

[25] The Downtown area is defined in the Land Use and Transportation Element of the General Plan (page 67) as the area generally bounded by the West Grand Avenue to the north, Lake Merritt and Channel Park to the east, the Oakland Estuary to the south, and I-980/Brush Street to the west. Intersections that provide direct access to Downtown are generally defined as principal arterials within two (2) miles of the Downtown area and minor arterials within one (1) mile of the Downtown area, provided that the street connects directly to the Downtown area. Note that all Oakland study intersections in this EIR are signalized and located within the Downtown area or provide direct access to Downtown, so Criteria 1, 3, 4 and 6 do not apply.

guidelines in the Oakland CEQA thresholds of significance described below and the CMP guidelines as identified in the Alameda County Transportation Commission's response letter to the Notice of Preparation. The following are the thresholds used in the CMP analysis. Analysis of freeway segments not identified as part of the CMP network are evaluated using the same methods and significance criteria as used to evaluate facilities that are part of the CMP network.

The project would have a significant impact on the environment if:

7. For a roadway segment of the Congestion Management Program (CMP) Network, the project would cause (a) the LOS to degrade from LOS E or better to LOS F or (b) the V/C ratio to increase 0.03 or more for a roadway segment that would operate at LOS F without the project. *Note: This threshold only applies to land use development projects that generate a vehicle trip on a roadway segment of the CMP Network located in the project study area and to transportation projects that would reduce the vehicle capacity of a roadway segment of the CMP Network. For purposes of this EIR, the above criteria is also applied to non-CMP designated roadway segments within the study area.*
8. Cause congestion of regional significance on a roadway segment on the Metropolitan Transportation System (MTS) evaluated per the requirements of the Land Use Analysis Program of the CMP. *Note: This threshold only applies to a land use development project that involves either (a) a general plan amendment that would generate 100 or more p.m. peak hour trips above the current general plan land use designation or (b) an EIR and the project would generate 100 or more p.m. peak hour trip above the existing conditions. Factors to consider in evaluating the potential impacts include, but are not limited to, the relationship between the project and planned improvements in the County wide Transportation Plan, the projects' s consistency with City policies concerning infill and transit-oriented development, the proximity of the project to other jurisdictions, and the magnitude of the project's contribution based on V/C ratios.*
9. Result in substantially increased travel times for AC Transit buses. *Note: Factors to consider in evaluating the potential impact include, but are not limited to, the proximity of the project site to the transit corridor(s), the function of the roadway segment(s), and the characteristics of the potentially affected bus route(s). The evaluation may require a qualitative and/or quantitative analysis depending upon these relevant factors.*

Traffic Safety Thresholds

The project would have a significant impact on the environment if it would:

10. Directly or indirectly cause or expose roadway users (e.g., motorists, pedestrians, bus riders, bicyclists) to a permanent and substantial transportation hazard due to a new or existing physical design feature or incompatible uses *Note: Factors to consider in evaluating the potential impact to roadway users due to physical design features and incompatible uses include, but are not limited to, collision history and the adequacy of existing traffic controls.*
11. Directly or indirectly result in a permanent substantial decrease in pedestrian safety *Note: Consider whether factors related to pedestrian safety such as, but not limited to, the following are substantial in nature:*
    - *Degradation of existing pedestrian facilities, including the following:*
        - *Removal of existing pedestrian refuge islands and/or bulbouts*
        - *Increase of street crossing distance*

    - *Permanent removal or significant narrowing of an existing sidewalk, path, marked crossing, or pedestrian access way*
    - *Increase in pedestrian or vehicle volume at unsignalized or uncontrolled intersections*
    - *Sidewalk overcrowding*
  - *Addition of new vehicle travel lanes and/or turn lanes*
  - *Permanent removal of existing sidewalk-street buffering elements (e.g., on-street parking lane, planting strip, street trees)*
  - *Addition of vehicle driveway entrance(s) that degrade pedestrian safety, with considerations given to the following:*
    - *Number of proposed vehicle driveway entrances*
    - *Location of proposed vehicle driveway entrance(s)*
    - *Visibility between pedestrians on the sidewalk and motorists using the proposed vehicle driveway entrance(s)*
12. Directly or indirectly result in a permanent substantial decrease in bicyclist safety
    Note: Consider whether factors related to bicyclist safety such as, but not limited to, the following are substantial in nature:
    - *Removal or degradation of existing bikeway*
    - *Addition of new vehicle travel lanes and/or turn lane*
    - *Addition of vehicle driveway entrances(s) that degrade(s) bicycle safety, with consideration given to the following:*
      - *Number of proposed vehicle driveway entrances*
      - *Location of proposed vehicle driveway entrance(s)*
      - *Visibility between bicyclists on travelway and motorists using the proposed vehicle driveway entrance(s)*
13. Directly or indirectly result in a permanent substantial decrease in bus rider safety
    Note: Consider whether factors related to bus rider safety such as, but not limited to, the following are substantial in nature:
    - *Removal or degradation of existing bus facilities*
    - *Siting of bus stops in locations without marked crossings, with insufficient sidewalks, or in isolated or unlit areas*
    - *Addition of new bus riders that creates overcrowding at a bus stop*
14. Generate substantial multi-modal traffic traveling across at-grade railroad crossings that cause or expose roadway users (e.g., motorists, pedestrians, bus riders, bicyclists) to a permanent and substantial transportation hazard.
    Note: If the project will generate substantial multi-modal traffic across an at-grade railroad crossing, a Diagnostic Review will be required in consultation with the California Public Utilities Commission. The Review should include roadway and rail descriptions, collision history, traffic volumes for all modes, train volumes, vehicular speeds, train speeds, and existing rail and traffic controls.

Other Thresholds

The project would have a significant impact on the environment if it would:

15. Fundamentally conflict with adopted City policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities adopted for the purpose of avoiding or mitigating an environmental effect and actually result in a physical change in the environment.
    Note: Factors to consider in evaluating the potential conflict include, but are not limited to, the following:

- *Does the project prevent or otherwise substantially adversely affect the future installation of a planned transportation improvement identified in an adopted City policy, plan, or program?*
- *Does the project fundamentally conflict with the applicable goals, policies, and/or actions identified in an adopted City policy, plan, or program?*

Adopted City policies, plans, and programs to consider include, but are not limited to, the following:

- *Land Use and Transportation Element (LUTE) of the General Plan (March 1998)*
- *Pedestrian Master Plan (November 2002)*
- *Bicycle Master Plan (December 2007)*
- *Public Transit and Alternative Modes Policy (formerly known as the "Transit-First Policy;" City Council Resolution 73036 C.M.S.)*
- *Sustainable Development Initiative (City Council Resolution 74678 C.M.S.)*
- *U.N. Environmental Accords (City Council Resolution 79808 C.M.S.)*
- *Capital Improvement Program*

16. Result in a substantial, though temporary, adverse effect on the circulation system during construction of the project.
17. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

Cumulative Impacts

18. A project's contribution to cumulative impacts is considered "considerable" (i.e., significant) when the project exceeds at least one of the thresholds listed above in a future year scenario.

City of Alameda Thresholds

Several intersections within Alameda were evaluated to determine the effect of Project traffic. Identification of impacts to Alameda intersections is based on Alameda's impact criteria.[26] According to Appendix G of the City of Alameda CEQA Guidelines, a project would have a significant impact on the environment if it would:

a. Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.
b. Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the congestion management agency for designated roads or highways.
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
d. Substantially increase hazards due to a design feature. (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
e. Result in inadequate emergency access.
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

[26] Source: Significance criteria as recommended by the City of Alameda Transportation Commission on April 22, 2009 to implement City of Alameda General Plan Policy 4.4.2d.

Alameda: Multimodal Analysis

The project would have a significant transportation impact if it has one or more of the following effects:
Pedestrian: Causes the Pedestrian LOS to degrade below LOS B at a signalized intersection. If the intersection were already below LOS B, an impact would be considered significant if the delay for a crosswalk increases by 10 percent. (Pedestrian LOS would be determined using the 2000 Highway Capacity Manual methodology for determining the average delay for pedestrians at a signalized intersection.)
Bicycle: Causes the Bicycle segment LOS to degrade below LOS B. If a street segment were already below LOS B, an impact would be considered significant if the LOS score increases by 10 percent or more in value. If a segment has an existing adjacent Class I facility and has not been recommended for a future bicycle lane, the degradation of the Bicycle LOS to E would not be considered a significant impact. (Florida Department of Transportation methodology for street segments will be used for the LOS analysis).
Transit: Causes travel speed to degrade by 10 percent or more along a street segment. A segment would be defined as the impacted bus stop location plus the two previous stopsand the two subsequent stops. A segment that crosses a City boundary shall also include five bus stops, but the last stop shall be the first bus stop outside the City of Alameda. (Transit LOS for an arterial segment would be calculated using the 2000 *Highway Capacity Manual*'s methodology for Urban Street (arterial) Level of Service).
Automobile: Causes an intersection to degrade below LOS D. If an intersection were already at LOS E or worse, an impact would be considered significant if there is a 3 percent or greater increase in the traffic volume. (Automobile LOS at intersections would be calculated using the 2000 *Highway Capacity Manual*'s methodology for determining the average vehicle delay at an intersection.)

Multiple Modal Priorities

If an acceptable level of service cannot be achieved for all modes, then the modes shall be prioritized based upon the General Plan street functional classification system. Priority shall be given to maintaining acceptable level of service for the higher priority mode. Mitigations should be adopted to improve the level of service for the lower priority mode, but those mitigations shall be designed to ensure that they do not impact the level of service for a higher priority mode.

The street functional classification system adopted as part of the City's Transportation Element includes a street type layer, a modal layer, and a land use layer. The modal hierarchy is based primarily on the street type layer, as follows:

Regional and Island Arterials

- Exclusive Right of Way Transit
- Primary Transit
- Secondary Transit
- Pedestrian
- Bicycle
- Automobile

Collectors

- Bicycle

- Pedestrian
- Transit
- Automobile

Local

- Pedestrian
- Bicycle
- Transit
- Automobile

For all street types, if the LOS thresholds are not being achieved, the LOS for automobiles is reduced first. To determine which mode would be impacted next, the modal overlay is used to modify the hierarchy. Note that there are no pedestrian priorities designated in the modal layer, so the Commercial/Main and School/Recreation designations in the land use layer are used to identify the pedestrian priority areas.

Here is an illustration of how this method would apply. For a regional arterial, transit would be the highest priority and the last mode to be impacted. In the absence of any priority designations for bicycles or pedestrians (or if both modes are designated priorities), the pedestrian mode would be given a higher priority than the bicycle mode. If a street segment were identified as a bicycle priority, but not as a pedestrian priority, then the bicycle mode would be given a higher priority than the pedestrian mode. Below is a list of the types of potential conflicts that were identified and how they would be resolved using the method described above.

a. On Regional Arterials with Commercial/Main or School/Recreation land use designation, modal preference would be in the following order: transit, pedestrian, bicycles, automobiles. Since transit is the highest preference, if necessary, a queue jump lane may share space with a Class II bicycle facility.
b. On Regional Arterials with land use designations other than Commercial/Main or School/Recreation, modal preference would be in the following order: transit, bicycle, pedestrian, automobiles. Since transit is the highest preference, if necessary, a queue jump lane may share space with a Class II bicycle facility.
c. On Island Arterials with Primary Transit or Exclusive Transit Right of Way, modal preference will be prioritized in the following order: transit, pedestrians, bicycles, automobiles.
d. On Island Arterials with Primary Transit or Exclusive Transit Right of Way and bicycle preference, modal preference will be in the following order: transit, bicycles, pedestrians, automobiles.
e. On Island Arterials with Primary Transit or Exclusive Transit Right of Way, and bicycle preference, and a Commercial/Main or School/Recreational Zone, modal preference will be in the following order: transit, pedestrians, bicycles, automobiles.
f. On Island Arterials with bicycle preference and Commercial/Main or School/Recreational Zone, modal preference will be in the following order: bicycles, pedestrians, transit, and automobiles.
g. On Island Arterials with Primary Transit or Transit Exclusive Right-of-Way and Commercial/Main or School/Recreation Zone, modal preference will be in the following order: transit, pedestrians, bicycles, automobiles.
h. On Island Collectors, modal preference will be in the following order: bicycles, pedestrians, transit, and automobiles.

i. On Local Streets, modal preference will be in the following order: pedestrians, bicycles, transit, and automobiles.

PLANNING-RELATED NON-CEQA ISSUES

The following transportation-related topics are not considerations under CEQA but an evaluation and discussion of these issues is included in this EIR to inform the City's decision-makers and the public about these issues. Below is a summary of how these issues are addressed in this EIR.

Parking

The Court of Appeal has held that parking is not part of the permanent physical environment, that parking conditions change over time as people change their travel patterns, and that unmet parking demand created by a project need not be considered a significant environmental impact under CEQA unless it would cause significant secondary effects.[27] Similarly, the December 2009 amendments to the State CEQA Guidelines (which became effective March 18, 2010) removed parking from the State's Environmental Checklist (Appendix G of the State CEQA Guidelines) as an environmental factor to be considered under CEQA. Parking supply/demand varies by time of day, day of week, and seasonally. As parking demand increases faster than the supply, parking prices rise to reach equilibrium between supply and demand. Decreased availability and increased costs result in changes to people's mode and pattern of travel. However, the City of Oakland, in its review of the proposed project, wants to ensure that the project's provision of parking spaces along with measures to lessen parking demand (by encouraging the use of non-auto travel modes) would result in minimal adverse effects to project occupants and visitors, and that any secondary effects (such as on air quality due to drivers searching for parking spaces) would be minimized. As such, although not required by CEQA, parking conditions are evaluated in this document as a non-CEQA topic for informational purposes.

Parking deficits may be associated with secondary physical environmental impacts, such as air quality and noise effects, caused by congestion resulting from drivers circling as they look for a parking space. However, the absence of a ready supply of parking spaces, combined with available alternatives to auto travel (e.g., transit service, shuttles, taxis, bicycles or travel by foot), may induce drivers to shift to other modes of travel, or change their overall travel habits. Any such resulting shifts to alternative modes of travel would be in keeping with the City's Public Transit and Alternative Modes Policy (sometimes referred to as the "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 that might result from a shortfall in parking in the vicinity of the proposed project are considered less than significant.

This document evaluates if the project's estimated parking demand (both project-generated and project-displaced) would be met by the project's proposed parking supply or by the existing parking supply within a reasonable walking distance of the project site.[28] Project-displaced parking results from the

[27] San Franciscans Upholding the Downtown Plan v. the City and County of San Francisco (2002) 102 Cal.App.4th 656.

[28] The analysis must compare the proposed parking supply with both the estimated demand **and** the Oakland Planning Code requirements.

project's removal of standard on-street parking, City or Redevelopment Agency owned/controlled parking, and/or legally required off-street parking (non-open-to-the-public parking which is legally required).

Transit Ridership

Transit load is not part of the permanent physical environment; transit service changes over time as people change their travel patterns. Therefore, the effect of the proposed Plan on transit ridership need not be considered a significant environmental impact under CEQA unless it would cause significant secondary effects, such as causing the construction of new permanent transit facilities which in turn causes physical effects on the environment. Furthermore, an increase in transit ridership is an environmental benefit, not an adverse impact. One of the goals of the Land Use and Transportation Element of the Oakland General Plan is to promote transit ridership. The City of Oakland, however, in its review of the proposed Plan, wants to understand the project's potential effect on transit ridership. As such, although not required by CEQA, transit ridership is evaluated in this document as a non-CEQA topic for informational purposes.

This document evaluates whether the project would exceed any of the following:

- Increase the average ridership on AC Transit lines by three (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, and result in significantly exceeding maximum future load factors on AC Transit buses that would require a change to the transit service standard from 15-minute to 30-minute bus frequencies;
- Increase the peak hour average ridership on BART by three (3) percent where the passenger volume would exceed the standing capacity of BART trains, and result in significantly exceeding maximum future load factors on BART trains that would require a change to the transit service standard from 3.75-minute to 15-minute rail frequencies; or
- Increase the peak hour average ridership at a BART station by three (3) percent where average waiting time at fare gates would exceed one minute.

Queuing

This EIR's analysis of vehicular queuing is not required under CEQA and is provided for informational purposes. This document evaluates whether development under the Station Area Plan would cause an increase in the 95th percent queue length of 25 feet or more at a study, signalized intersection under the Existing Plus Project Conditions or the Near-Term Future Baseline Plus Project Condition. The effects of vehicle queuing are analyzed at each study intersection.

ANALYSIS METHODOLOGY

Intersection Analysis Methodology

Level of Service (LOS) describes operating conditions a driver will experience while traveling on a particular street or at an intersection during a specific time interval. It ranges from LOS A (very little delay) to LOS F (long delays and congestion).

Table 3.2-6 provides a definition for each Level of Service category for signalized intersections and **Table 3.2-7** defines Level of Service categories for unsignalized intersections. The traffic analysis determines Level of Service at signalized intersections using the operations methodology published in the

2000 Highway Capacity Manual[29] applied through software (Synchro) approved by the City of Oakland for preparing traffic impact studies. Level of Service at unsignalized intersections is evaluated using the methodology for STOP-controlled intersections published in the *2000 Highway Capacity Manual.* The method for unsignalized intersections differs from that for signalized intersections in its measure of effectiveness—average delay for stopped movements versus average controlled delay for signalized intersections).

[29] *Highway Capacity Manual*, Transportation Research Board, 2010.

Table 3.2-6: Signalized Intersection Level of Service Definitions

Level of Service	*Description*	*Signalized (Avg. control delay per vehicle sec/veh.)*
A	Free flow with no delays. Users are virtually unaffected by others in the traffic stream	10
B	Stable traffic. Traffic flows smoothly with few delays.	10 – 20
C	Stable flow but the operation of individual users becomes affected by other vehicles. Modest delays.	20 – 35
D	Approaching unstable flow. Operation of individual users becomes significantly affected by other vehicles. Delays may be more than one cycle during peak hours.	35 – 55
E	Unstable flow with operating conditions at or near the capacity level. Long delays and vehicle queuing.	55 – 80
F++o	Forced or breakdown flow that causes reduced capacity. Stop and go traffic conditions. Excessive long delays and vehicle queuing.	80

Source: Transportation Research Board, Highway Capacity Manual 2000, National Research Council, 2000.

Table 3.2-7: Unsignalized Intersection Level of Service Definitions

Level of Service	*Description*	*Unsignalized (Avg. control delay per vehicle sec/veh.)*
A	Little or no conflicting traffic for minor movements.	10
B	Drivers on minor movements begin to notice absence of available gaps.	10 – 15
C	Drivers on minor movements begin to experience delays waiting for adequate gaps.	15 – 25
D	Queuing occurs on minor movements due to a reduction in available gaps.	25 – 35
E	Extensive minor movement queuing due to insufficient gaps.	35 – 50
F	Insufficient gaps of adequate size to allow minor movement traffic demand to be accommodated.	50

Source: Transportation Research Board, Highway Capacity Manual 2000, National Research Council, 2000.

Roadway Segment Analysis Methodology

Roadway segment analysis is applied to locations where there is a change in the number of travel lanes that cannot be represented in conventional signalized intersection analyses. Oak Street between Embarcadero and 2nd Street—a segment which encompasses an active railroad grade-crossing—is analyzed as a roadway segment where it intersects the Union Pacific Railroad grade-crossing. Reducing the number of lanes would allow the implementation of Class II bike lanes closing the gap between 5th Street and Embarcadero as identified in the Oakland Bicycle Master Plan.

Roadway segments (lengths of streets containing multiple intersections) are analyzed to determine if they will operate within established standards. The evaluation of road segments reflects the speed of traffic traveling between intersections and the delay experienced approaching intersections. Roadway Level of Service uses a classification system (Class I through V) that groups streets with similar physical and operational characteristics. The traffic analysis uses methods consistent with the *2000 Highway Capacity Manual*. Refer to **Appendix D** for the Level of Service criteria used for each classification of roadway segments. The segment of Oak Street being studied is designated as a Class IV facility due to the dense spacing of signalized intersections on this urban arterial street.

Freeway Segment Analysis Methodology

The Alameda County Transportation Commission (ACTC) has established standardized procedures for measuring the performance of transportation facilities that are part of the County's Congestion Management Program. The Level of Service for freeway segments is based on the ratio of traffic volume to traffic capacity (V/C ratio). For each Level of Service category (LOS A through F), **Table 3.2-8** compares V/C ratio with common operational characteristics describing freeway performance.

Table 3.2-8: Freeway Segment LOS Criteria

Level of Service	*Average Travel Speed (mph)*	*Volume to Capacity Ratio*	*Maximum Traffic Volume (veh/hr/ln)*
A	≥ 60	0.35	700
B	≥ 55	0.58	1,000
C	≥ 49	0.75	1,500
D	≥ 41	0.90	1,800
E	≥ 30	1.00	2,000
F	< 30	F30 = Avg Travel Speed < 30 mph F20 = Avg Travel Speed < 20 mph F10 = Avg Travel Speed < 10 mph	--

Sources: Alameda CTC 2011 Congestion Management Program, December 2011.

Congestion Management Program (CMP) Analysis Methodology

Since the proposed Plan, as defined in the Project description, will generate more than 100 peak-hour trips, assessment of the impacts of the Project on the regional transportation system requires the use of the Alameda County Transportation Commission (ACTC) Countywide Travel Demand Model for year 2020 and 2035 conditions. The impact analysis for roadways includes MTS[30] roadways and CMP-designated roadways, plus several local MTS streets in the vicinity of the Project. The scope of the MTS and CMP-facility analysis conforms with the guidelines in the 2011 Alameda County Congestion Management Program.

The year 2020 and 2035 traffic forecasts are derived from the version of the countywide model that was current at the time the Notice of Preparation (NOP) was issued (March 2012). The land use database used

[30] The Metropolitan Transportation System (MTS) is a network of highways (including highways identified as CMP facilities) and roadways that are part of a regional transit system.

in this version of the countywide model is the Association of Bay Area Government's (ABAG) *Projections 2009* socio-economic forecasts.

CMP and MTS Highway Segments

The analysis for designated CMP and MTS segments uses a methodology to determine Level of Service based on the methods in the 2000 Highway Capacity Manual. As a planning level analysis, the Level of Service the method uses traffic forecasts and either existing, or assumed, parameters for future roadway geometrics and traffic signal control. Some of the more common parameters used by the methodology include facility type (freeway, expressway, and arterial classification), operating speed, lane capacity, number of lanes, green time allocated to side streets, signal lost time, etc. The existing and future number of lanes and other geometric and control parameters on the CMP and MTS highway segments in the study area were confirmed through field observations, and extracted from the ACTC countywide model, respectively.

The analysis of I-880 freeway segments within and adjacent to the study area overlaps a portion of the analysis of CMP and MTS highway segments. The freeway segment analysis covers I-880 from 5th Avenue to I-980, and covers I-980 from I-880 to 18th Street. The CMP analysis covers I-880 south of Oak Street and north of Castro Street. The overlapping portion of the analyses includes I-880 between 5th Avenue and Oak Street. Because the method of projecting traffic volumes for freeway segments differs from the CMP's required method for projecting traffic volumes on CMP and MTS highway segments, the analysis of the overlapping segment of I-880 will show different results between the freeway and CMP segment analyses.

MTS Transit Corridors

The measure of performance for MTS Transit Corridors is transit ridership. This measure is assessed using the ACTC countywide model obtained at the time of the issuance of the NOP. Predicted transit ridership for AC Transit and BART are extracted from the model[31] at points in the transit system representative of the Lake Merritt Bart Station Area. However, transit ridership is a planning related non-CEQA issue which means it is not a consideration under CEQA but is evaluated and presented in this EIR in order to inform decision-makers and the public about the issue.

ANALYSIS SCENARIOS

The traffic analysis for the Lake Merritt Station Area Plan includes the following scenarios:

- **Existing (2012) Conditions** – Based on current traffic counts and existing roadway geometry and traffic control.
- **Existing (2012) Plus Project Conditions** – This scenario identifies impacts that are solely caused by the Project. It represents a scenario in which only the Project is developed, thus any impacts identified are caused by the Project. These impacts are those for which mitigation measures are specific to the Project and the cost of the mitigation is the responsibility of the Project. The peak hour traffic projections for this scenario were developed by adding the traffic

[31] The transit module of the ACTC travel demand model predicts ridership by combining its two transit trip purposes (home-based work and non-work transit trips) into a total daily transit ridership. Peak hour analysis of potential ridership impacts requires converting total daily transit ridership to PM peak hour ridership using a 25% peak to daily factor. Source: Kittelson & Associates, Inc.

generated by the full development of the Lake Merritt Station Area Plan to the existing traffic volumes at the study intersections based on the trip generation, distribution, and assignment described earlier. This scenario also assumes the transportation improvements considered part of the project description. The planned transportation improvements not associated with the Project, and described in the following section are not included in the analysis of this scenario, since they are not expected to be implemented until future years.

- **Interim (2020) Conditions Without the Project** – This scenario reflects General Plan development levels and transportation improvements anticipated to occur by the year 2020 without development of the Lake Merritt Station Area Plan. This scenario includes development within the study area as defined by the General Plan.
- **Interim (2020) Plus Project** – This scenario adds to the Interim 2020 traffic conditions the net change in traffic that would occur if the General Plan development in the study area were replaced by the proportion of the Lake Merritt Station Area Plan development projected to occur by 2020. This scenario also assumes the transportation improvements considered part of the project description.
- **Cumulative (2035) Conditions Without the Project** – This scenario reflects buildout of the City's General Plan (land use and transportation improvements anticipated to occur by the year 2035) without implementation of the development levels and transportation improvements in the Lake Merritt Station Area Plan. This represents the state-mandated "no project" scenario and is the comparative basis for determining the Lake Merritt Station Area Plan's share of impacts caused by all projected development cumulatively.
- **Cumulative (2035) Conditions Plus Project** – This scenario adds to the Cumulative 2035 No Project Traffic Conditions the net change in traffic that would occur if the General Plan development in the study area was replaced by full buildout of the Lake Merritt Station Area Plan development by 2035. This scenario also assumes the transportation improvements considered part of the project description.

PLANNED TRANSPORTATION IMPROVEMENTS

This section describes regional and local planned transportation improvements that might affect Planning Area. Transportation improvements that have been approved and funded are assumed to be completed as part of the appropriate future analysis scenario. Transportation improvements that are not approved and/or not funded are not included in any analysis scenario.

The Alameda County Transportation Commission (ACTC) includes committed and funded Tier 1 transportation improvements in the Countywide Transportation Plan. These projects are not located within the Planning Area but are incorporated into the regional travel demand forecasting model from which are developed the background traffic projections used in this EIR's analyses.

- **AC Transit East Bay Bus Rapid Transit (BRT) Project** - This transit project will provide enhanced bus service from downtown Berkeley to the downtown San Leandro BART Station. BRT integrates features that improve bus reliability, reduce travel time, and attract riders who typically don't use bus transit. These features include off-bus fare collection, transit priority traffic signals, real-time traveler information, and exclusive BRT running-ways or exclusive BRT traffic lanes. The AC Transit BRT project includes exclusive bus-only lanes along Broadway, 12th Street, 11th Street, and Lake Merritt Boulevard within the vicinity of Planning Area.

The AC Transit East Bay Bus Rapid Transit (BRT) Project is partially funded with Measure B funds with the remaining funding anticipated from the Federal Transit Administration (FTA). This project is expected to be completed by 2016. Because AC Transit has involved the FTA in all aspects of the planning of this project, federal funds are fully anticipated, and therefore, this project is included in the year 2020 interim and cumulative 2035 analyses.

- **The Lakeside Green Street Project -** The Lakeside Green Street Project will reconfigure the area near the intersection of 20th Street and Harrison Street. Lakeside Drive will no longer connect to the intersection of 20th Street and Harrison Street. Instead, Lakeside Drive will connect to Harrison Street to the north of the 20th Street intersection.

  The Lakeside Green Street Project is funded by Measure DD bonds and expected to be completed before 2020. It is included in the year 2020 interim and cumulative 2035 analyses.

- **The 12th Street Project -** The 12th Street Project will reconfigure the area along Lakeside Drive, south of Lake Merritt. The project will alter 11th Street, 12th Street, and 13th Street leading up to Lakeside Drive to the west, and International Boulevard to the east.

  The 12th Street Project is funded by Measure DD bonds and is currently under construction and nearing completion. It is included in the year 2020 interim and cumulative 2035 analyses.

Transportation Improvements Considered Part of the Project Description

Transportation improvements included in this section are considered a component of the Project being analyzed in this EIR. Therefore, the improvements are assumed to be fully implemented by the identified analysis scenario. The improvements are called out as modifications to the existing transportation systems (as in all of the without Project scenarios) and the Project analysis identifies any impacts as a result of the transportation improvements and the changes in traffic volumes associated with the development program.

Implementation of Bicycle Lanes

The EIR analyzes the implementation of Class II bicycle lanes on the following corridors:

- Madison Street from 5th Street to 19th Street (includes a lane reduction)
- Oak Street from 5th Street to 14th Street (includes a lane reduction)
- 8th Street from Harrison Street to Fallon Street (includes a lane reduction)
- 9th Street from Harrison Street to Fallon Street (does *not* include lane reduction)
- 10th Street from Madison Street to Oak Street (includes a lane reduction)

These roadway changes are incorporated into the analysis of the Project scenarios under existing conditions, interim 2020 conditions, and cumulative 2035 conditions.

PROJECT TRIP GENERATION AND TRAVEL DEMAND FORECASTING

Proposed Development Program for Opportunity Sites

The Planning Area within downtown Oakland is divided into potential development sites by block. **Figure 2.5-1** in the Project Description chapter shows the location of each development site relative to the core of downtown Oakland and relative to each other. Proposed land uses and existing land uses to be removed are identified for each opportunity site. Many of the opportunity sites are currently surface parking lots that the Lake Merritt Station Area Plan identifies as high priority sites for redevelopment into

high-rise and mid-rise apartments, office buildings, or stand-alone retail buildings. The following section summarizing the Project's traffic projections is based on the opportunity sites defined in the Project Description chapter.

Project Trip Generation

The trip generation of a development project is estimated using on trip generation rates (*vehicle trip / unit of development*) contained in the Institute of Transportation Engineer's publication, *Trip Generation 8th Edition.*[32] *Trip Generation* is a standard industry reference used by public agencies and transportation professionals for estimating the trip generation of proposed development.

Traffic impact analyses evaluate conditions during the weekday morning and afternoon periods with the highest amount of traffic on the surrounding street network, typically estimated between the hours of 7:00-9:00 AM and 4:00-6:00 PM. This methodology is consistent with the City of Oakland's standard for the preparation of traffic impact studies. Trip generation calculations prepared per ITE methodology are based on the full development of the Lake Merritt Station Area Plan.

Reductions are applied to the project's trip estimates to account for pass-by trips, internally captured trips, and non-automobile modes of transportation. The source of these reductions is described below.

- Pass-by trips use data from the ITE Trip Generation Handbook, 2nd Edition.[33] Retail is the only proposed land use affected by the pass-by reduction. The following pass-by rates are used—15 percent daily, 15 percent AM peak hour, 34 percent PM peak hour (Daily and AM peak reductions per Caltrans TIA Standards, 2002).
- Trips between land uses within the same development or within the same opportunity site / block (e.g., between residential and retail) are designated as internal-capture trips. Internal capture is estimated using the procedure published in the ITE *Trip Generation Handbook, 2nd Edition*.
- Reductions for trips using non-automobile modes (e.g., walk, bike, transit) are applied to the project land uses using the following:
  - ***Office*** – Source: Characteristics of Rail and Ferry Station Area Residents in the San Francisco Bay Area: Evidence from the 2000 Bay Area Travel Survey,[34] Alameda County residents living greater than a half-mile from a BART station and arriving at an office within a half-mile of a BART station use a non-auto mode of transportation for office trips on average 43 percent of the time. Therefore, a 43 percent reduction was used for the daily, AM peak, and PM peak trip generation rates for each office land use.
  - ***Residential*** – Source: the Lake Merritt Station Area Plan Existing Conditions and Key Issues Report,[35] the 2009 summary of commute patterns of those living in the Planning Area indicate that 25 percent use public transportation, 24 percent walk, and nearly two percent ride a bike for commute trips. The remaining commute trips include 34 percent drive alone, 11 percent carpool, and 5 percent use other modes of travel. Therefore, a 56 percent reduction

[32] Trip Generation, 8th Edition, Institute of Transportation Engineers, 2008.

[33] Trip Generation Handbook, 2nd Edition, An ITE Recommended Practice, ITE, November 2003.

[34] Characteristics of Rail and Ferry Station Area Residents in the San Francisco Bay Area: Evidence from the 2000 Bay Area Travel Survey, MTC, September 2006.

[35] Lake Merritt Station Area Plan Existing Conditions and Key Issues Report, Dyett and Bhatia, 2010.

is applied to the daily, AM peak, and PM peak hour trip generation estimates for each residential land use.

- ***Retail*** - Per the Characteristics of Rail and Ferry Station Area Residents in the San Francisco Bay Area: Evidence from the 2000 Bay Area Travel Survey, Alameda County residents living within a half-mile of a BART station use a non-auto mode of transportation for retail trips 41 percent of the time in the AM peak and 40 percent of the time in the PM peak. Therefore a 40 percent reduction was used for the daily and PM peak trip generation rates for each residential land use and a 41 percent reduction was used for the AM peak trip generation rates for each residential land use.

The Project is estimated to generate approximately 26,837 new daily trips, 2,095 new AM peak hour trips and approximately 2,395 new PM peak hour trips. The detailed trip generation analyses by opportunity site can be found in **Appendix D**.

Project Trip Distribution

The distribution of Project trips to the street and highways within, and accessing, the Planning Area is determined using a combination of distribution patterns developed for other traffic impact analyses of downtown Oakland, existing traffic counts, and the ACTC countywide travel demand forecasting model. **Figure 3.2-8** illustrates the distribution pattern used to assign Project traffic to the Planning Area's streets and intersections, as shown in **Figure 3.2-9**.

Year 2020 Traffic Forecasting Methodology

The Alameda County Transportation Commission Countywide Model (Version P09) was approved by the City of Oakland for use in forecasting traffic and transit ridership. The future land uses in the P09 version (the P09 designation refers to the Association of Bay Area Government's (ABAG) land use forecasts developed in 2009) of the model conform to the adopted General Plan land uses in each of the Bay Area municipalities included in the model. As such, the forecasts described in this section represent "Without Project" scenarios.

Forecasts were developed for the AM and PM peak hour traffic volumes on roadways in the study area for a "baseline scenario" (Year 2005) and an "Interim 2020" scenario. The difference in traffic projections between the two scenarios divided by the number of years between the scenarios (15) provided an annual growth in traffic for each street segment represented by the model in the study area.

The annual growth in traffic was multiplied by eight to project the incremental growth between existing conditions (2012) and the future (2020) conditions and added to existing (2012) traffic counts resulting in the Interim 2020 Without the Project scenario.[36]

The forecasting procedure was modified correct for the temporary change in traffic patterns caused by the construction of the 12th Street improvement project—changes that were captured by the traffic counts conducted in 2012 and incorporated into the process. The correction replaced the existing (2012) traffic

[36] The description of the forecasting methodology has been simplified for comprehension by the layperson. The forecasting process as described omits several additional steps describing the process that converts the model's street segment traffic projections into left, right, and through movements at each approach to study intersections based on existing traffic patterns from actual counts. This process—called furnessing—corrects for the inherent errors that occur when travel demand forecasting models are used to project traffic at the level of detail of intersection turning movements..

counts at intersections affected by the construction with counts conducted prior to the start of construction. The replacement traffic counts are from the *Kaiser Center Office Project DEIR*[37] and the *Oakland Measure DD Implementation Project EIR*.[38] Current 2012 traffic counts continue to be used at intersections unaffected by construction of the 12th Street improvement project. The source of counts used in the modified forecasting process is summarized in **Appendix D**. The land use and traffic count input data and the forecast model output data representing the Interim 2020 scenario are included in **Appendix D**.

Year 2035 Traffic Forecasting Methodology

The year 2035 forecasts assume substantial growth of residents and employees in the Planning Area. Similar to the Interim 2020 forecasts, the 2035 growth is a function of the land use incorporated into the model using ABAG's P09 projections. The traffic forecasting procedure for 2035 mirrors the procedure for the Interim 2020 traffic forecasts. The land use input data and the forecast model output data representing the cumulative 2035 scenario are included in **Appendix D**.

Developing the Plus Project Scenarios

The above discussion addressed how the Interim 2020 and Cumulative 2035 "Without the Project" forecasts were developed. This section provides a brief summary of the development of the "With the Project" scenarios.

Although the AM and PM peak hour trip generation of the Project was calculated by opportunity site and distributed to each study intersection, this forecasted Project traffic could not simply be added to the Interim 2020 and Cumulative 2035 No Project forecasts. The 2020 and 2035 No Project scenarios already included development in the opportunity sites within the study area, and adding Project traffic would have double counted traffic from the opportunity sites.

A procedure was developed to produce Plus Project traffic forecasts that avoided double counting. The process used the net change in the amount and type of land use between the No Project and Plus Project scenarios to estimate the change in traffic volume. Not only was there a change in the amount of land use between the No Project and Plus Project scenarios, there was also a change in the type of land use as well—some opportunity sites changed from a high traffic generator to a low traffic generator. When the net change in land use was used to estimate trip generation for reach of the opportunity sites, some sites resulted in positive traffic generation and some in negative traffic generation that has the effect of counteracting some of the overall traffic growth generated by the Project.

[37] *Kaiser Center Office Project DEIR*, Environmental Science Associates, August 2010.

[38] *City of Oakland Measure DD Implementation Project EIR*, LSA, Associates, Inc., July 2007.

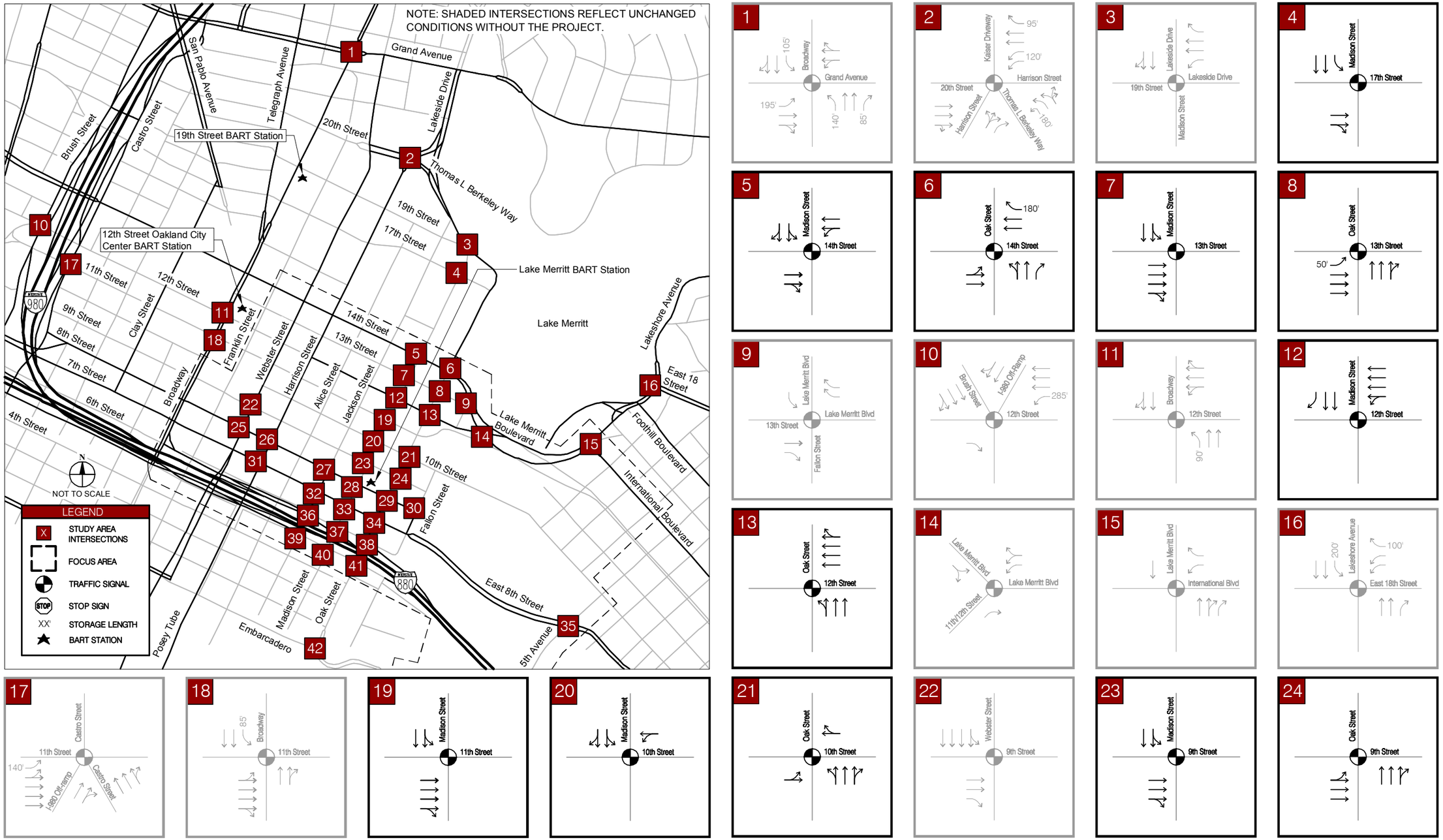

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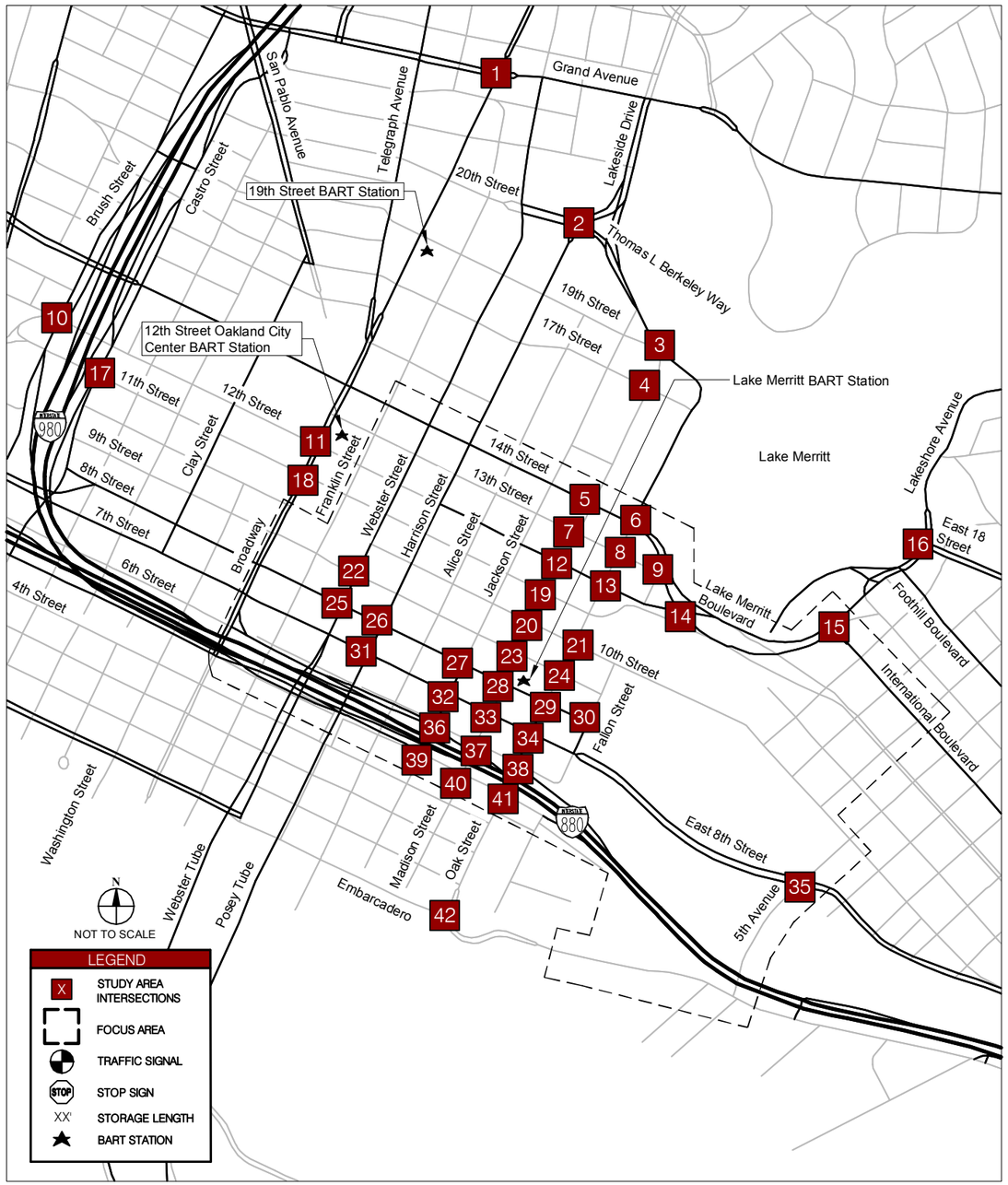
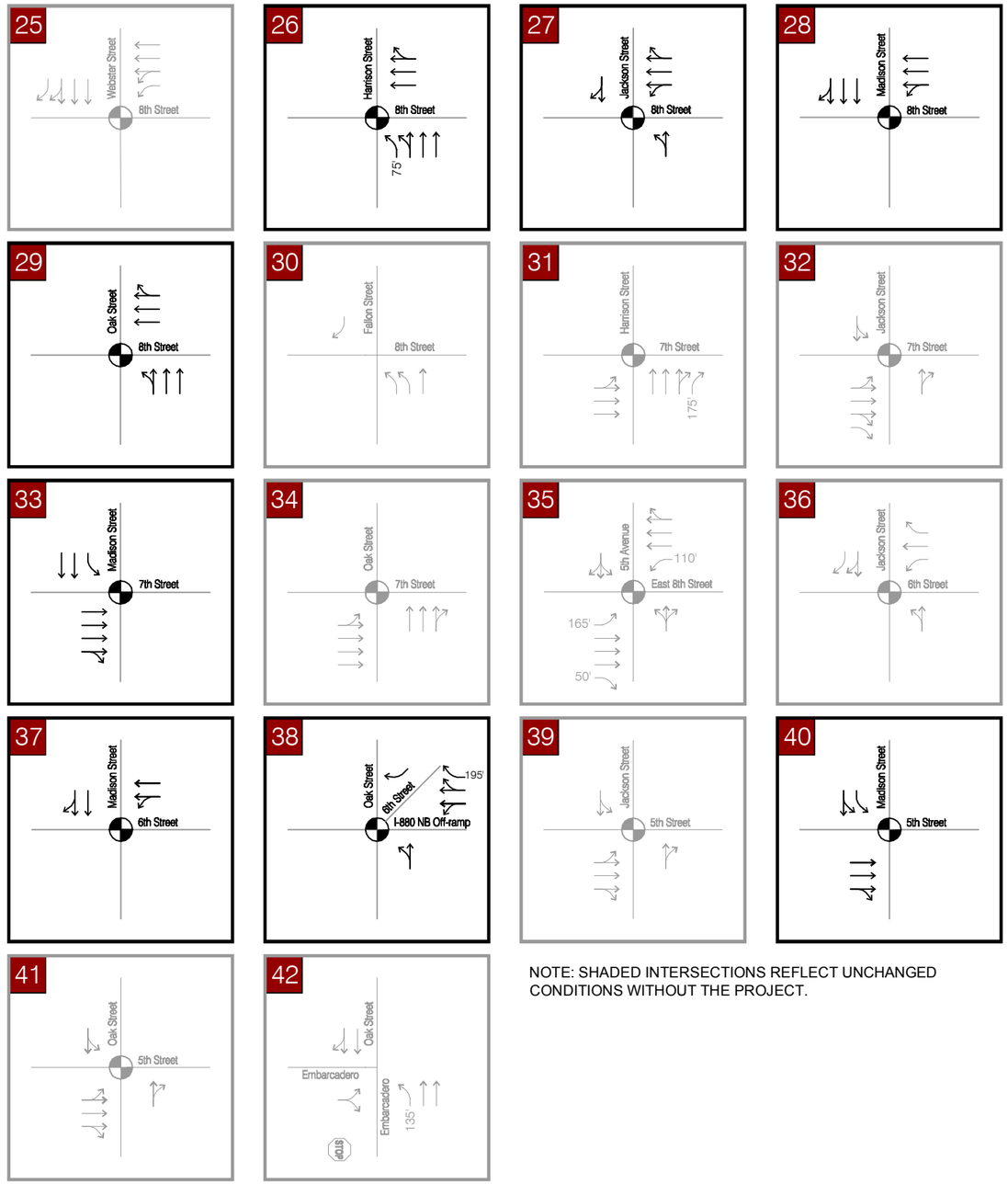
FIGURE 3.2-7
EXISTING PLUS PROJECT CONDITION - LANE GEOMETRY AND TRAFFIC CONTROL
LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS





NOTE: SHADED INTERSECTIONS REFLECT UNCHANGED CONDITIONS WITHOUT THE PROJECT.

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FIGURE 3.2-7 (continued)
EXISTING PLUS PROJECT CONDITION - LANE GEOMETRY AND TRAFFIC CONTROL
LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS

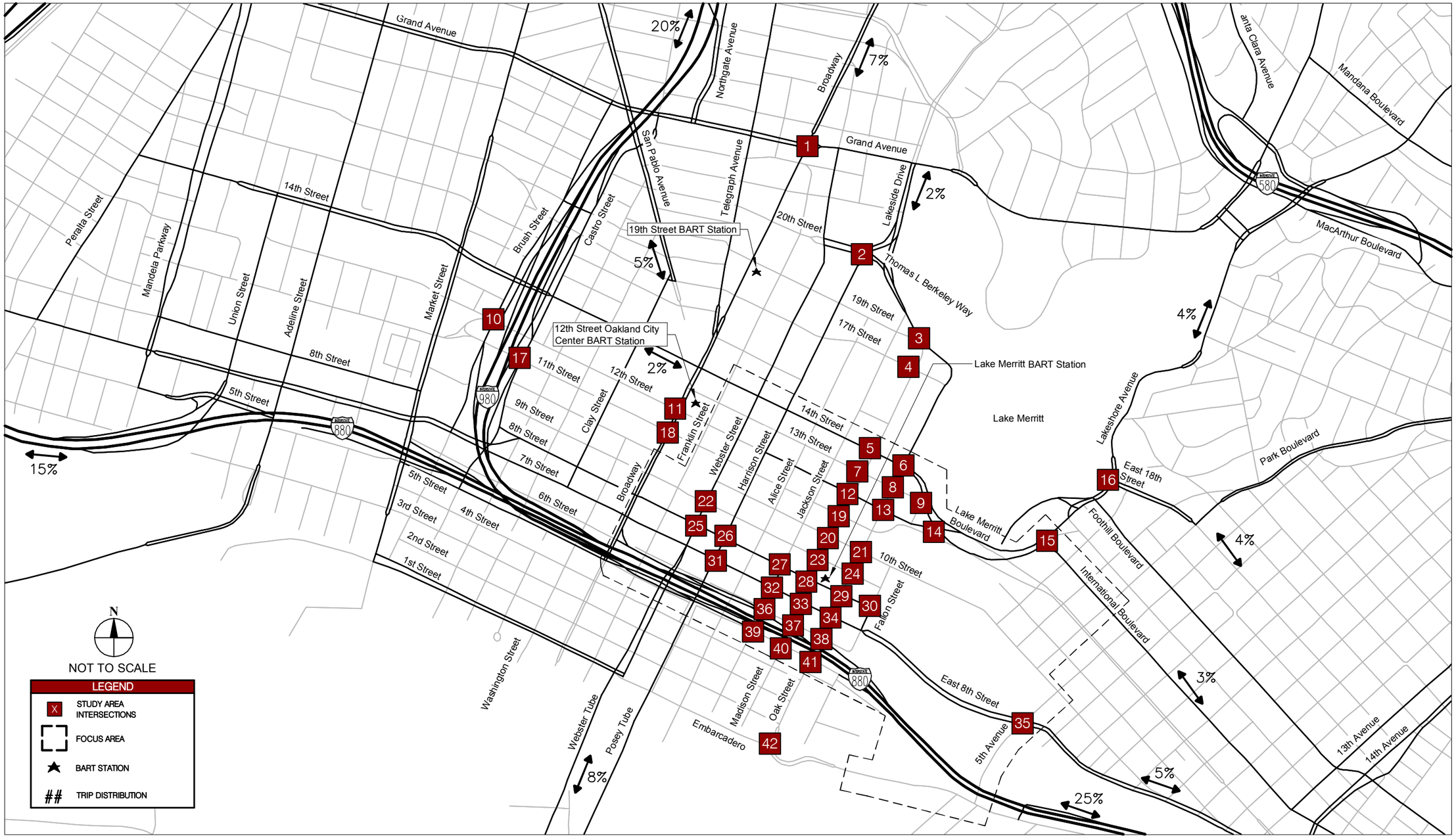

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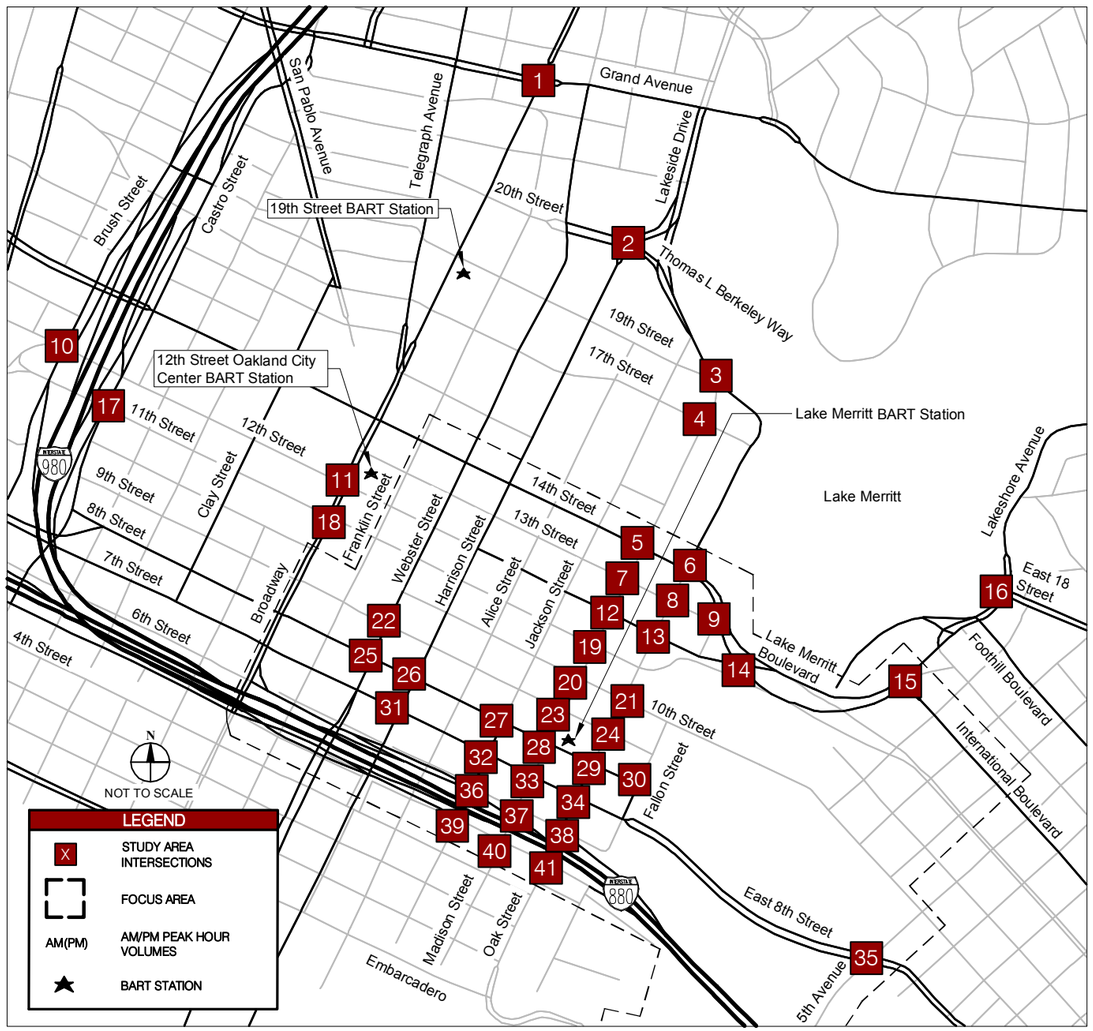
FIGURE 3.2-8
TRIP DISTRIBUTION

LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS



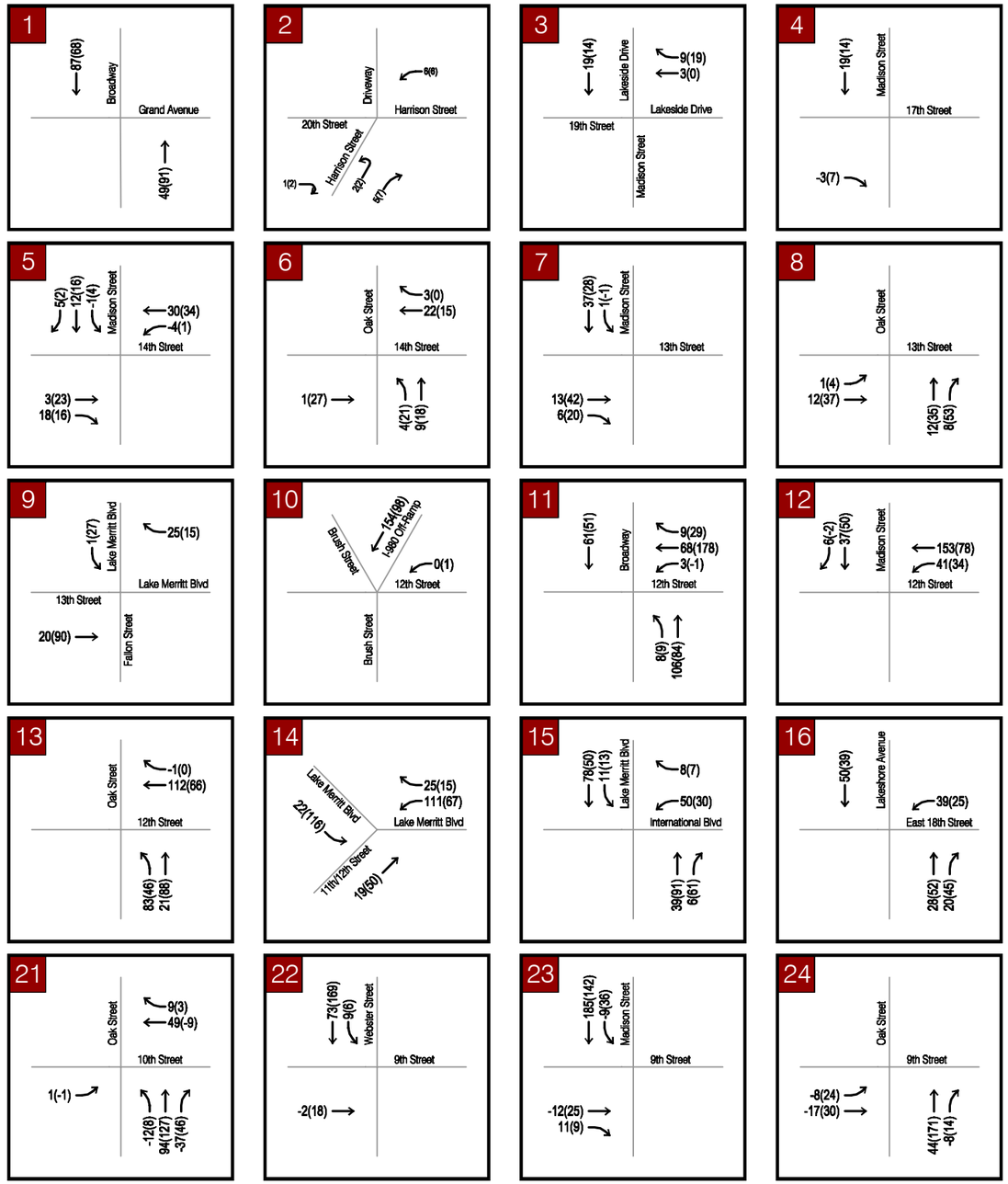


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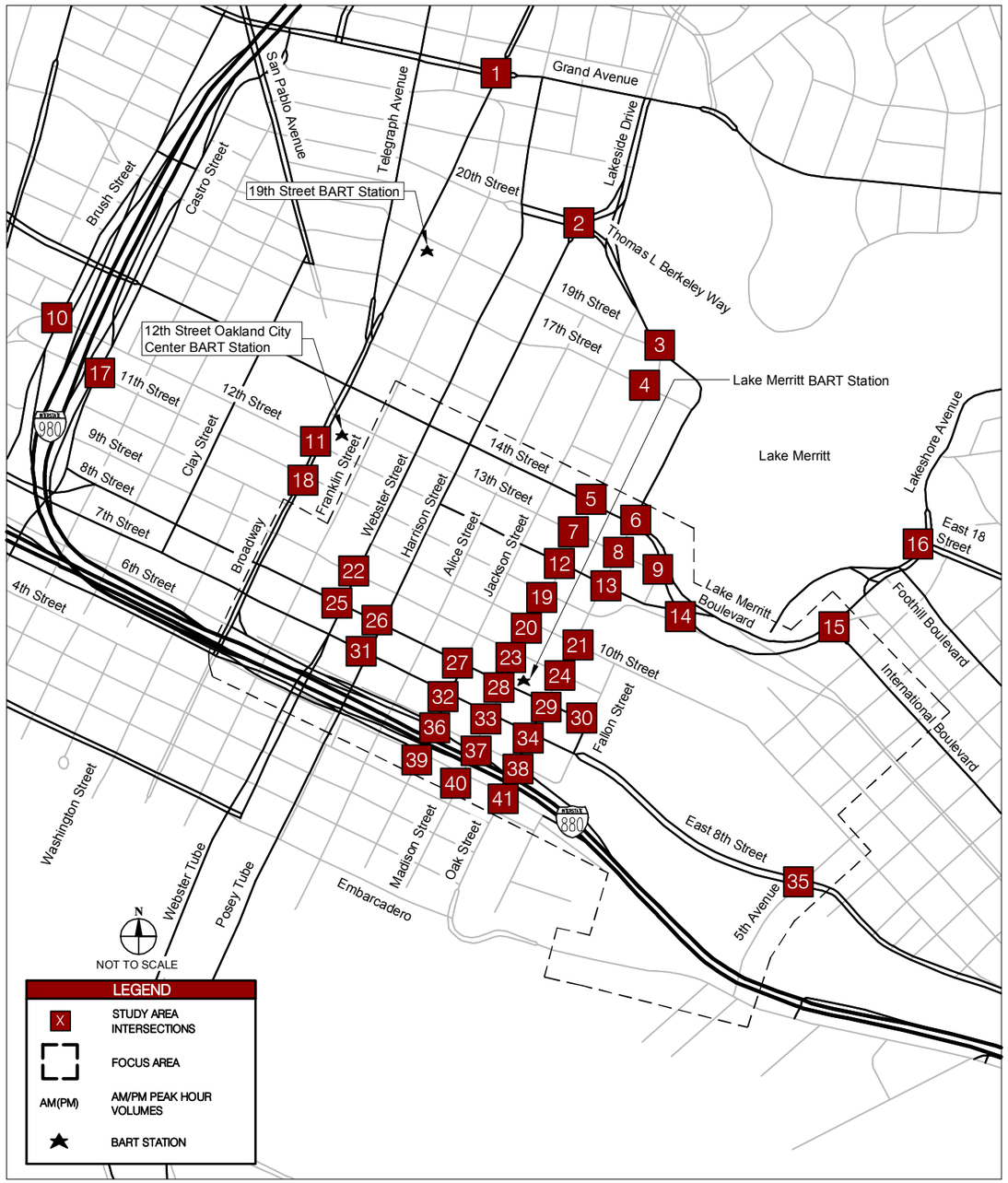
FIGURE 3.2-9
PROPOSED PROJECT VOLUMES IN EXISTING PLUS PROJECT
LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS



25
Webster Street: ← 73(169); → 30(47), 20(34)
8th Street

26
Harrison Street: → 12(17), 46(78); ↑ 3(3), 62(67)
8th Street

27
Jackson Street: ← 2(1), 68(117); → 22(23), 60(92), 32(51); ↑ 6(2), 120(73)
8th Street

28
Madison Street: ← 6(11), 191(148); → 109(155), 94(149)
8th Street

29
Oak Street: → 16(16), 168(212); ↑ 33(84), 25(175)
8th Street

30
Fallon Street: ← 9(3); ↑ 143(235), 0(3)
8th Street

31
Harrison Street: ← 20(15), 141(155); ↑ 48(33), 51(30)
7th Street

32
Jackson Street: ← 97(157), 4(11); → 3(3), 144(91), 45(102); ↑ 124(72), 84(36)
7th Street

33
Madison Street: ← 188(246), 97(51); ← 161(120), 71(18)
7th Street

34
Oak Street: ← 40(119), 153(113); ↑ 14(142), 213(152)
7th Street

35
5th Avenue: ← 37(25); East 8th Street: ← 13(18), 30(65); → 5(0), 65(43)

36
Jackson Street: ← 96(142), 46(116); → 110(74), 43(124); ↑ 0(3), 98(34)
6th Street

37
Madison Street: ← 45(135), 126(202); → 108(63)
6th Street

38
Oak Street: ↑ 106(140)
6th Street: → 138(144), 108(63)
I-880 NB Off-ramp

39
Jackson Street: ← 48(116); ← 3(0), 55(67), 2(0); ↑ 95(37)
5th Street

40
Madison Street: ← 1(0), 125(202); ← 101(183)
5th Street

41
Oak Street: ← 1(0); ← 55(67), 171(318); ↑ 50(72), 0(1)
5th Street

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FIGURE 3.2-9 (continued)
PROPOSED PROJECT VOLUMES IN EXISTING PLUS PROJECT
LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS

IMPACT ASSESSMENT

Analysis of Existing Plus Project Intersection Levels of Service

Traffic operations were evaluated under the Existing Plus Project Traffic Conditions. Estimated Project traffic generated from the full buildout of the opportunity sites in the Lake Merritt Station Area Plan were added to existing volumes to create the Existing Plus Project volumes shown in **Figure 3.2-10**. In addition to estimated Project traffic, the analysis includes any roadway geometry alterations necessary to implement the Project's bicycle lanes. The study intersections are evaluated with existing traffic signal timing parameters. Existing Plus Project intersection levels of service are summarized in **Table 3.2-9.** All intersections function within acceptable standards under the Existing Plus Project conditions, except at the following locations:

- Lake Merritt Boulevard and 11th Street
- 1st Avenue and International Boulevard
- Madison Street and 10th Street
- Oak Street and 10th Street
- Jackson Street and 7th Street
- Oak Street and 6th Street
- Jackson Street and 5th Street

The Project causes the intersections listed above would degrade to LOS F in either or both peak hours.

Analysis of City of Alameda Intersections

The Lake Merritt Station Area Plan EIR addresses the traffic effects of the Project in the City of Oakland and neighboring jurisdictions as determined appropriate through study area scoping. This section summarizes an analysis of key intersections in the City of Alameda conducted as part of a scoping process to determine if City of Alameda facilities needed to be included in the Lake Merritt Station Area Plan traffic analysis.

The proposed Plan will generate trips to and from the City of Alameda that will predominantly use the Webster Street and Posey Tubes and pass through the following three intersections in Alameda:

- Constitution Way and Marina Village Parkway
- Webster Street and Atlantic Avenue
- Constitution Way and Atlantic Avenue

Because these three intersections are closest to the Webster Street and Posey Tubes and would experience the highest number of Project trips from the Planning Area, they are indicators of potential Project impacts on City of Alameda intersections more distant from the Webster Street and Posey Tubes. In the analysis discussed below, the without project volumes, lane geometries, and traffic control for the city of Alameda study intersections is based upon the 2012 Oakland Army Base Project Initial Study/Addendum[39]. The trips from buildout of the proposed Lake Merritt Station Area Plan were added to the without project intersection volumes representing existing AM and PM peak hour conditions resulting in the Existing Plus Project scenario analyzed in the following sections.

[39] *2012 Oakland Army Base Project Initial Study/Addendum*, Kittelson & Associates, Inc., April 2012.

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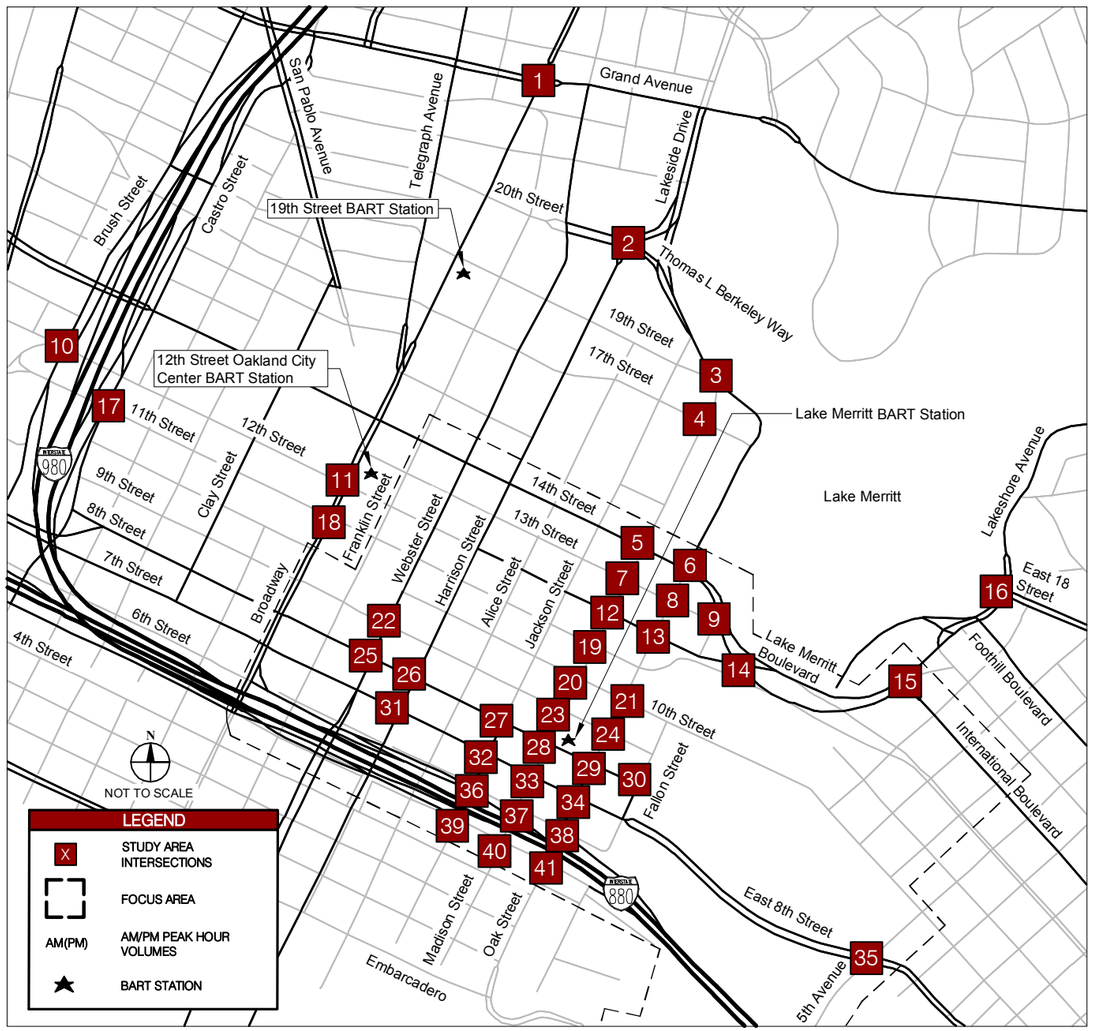

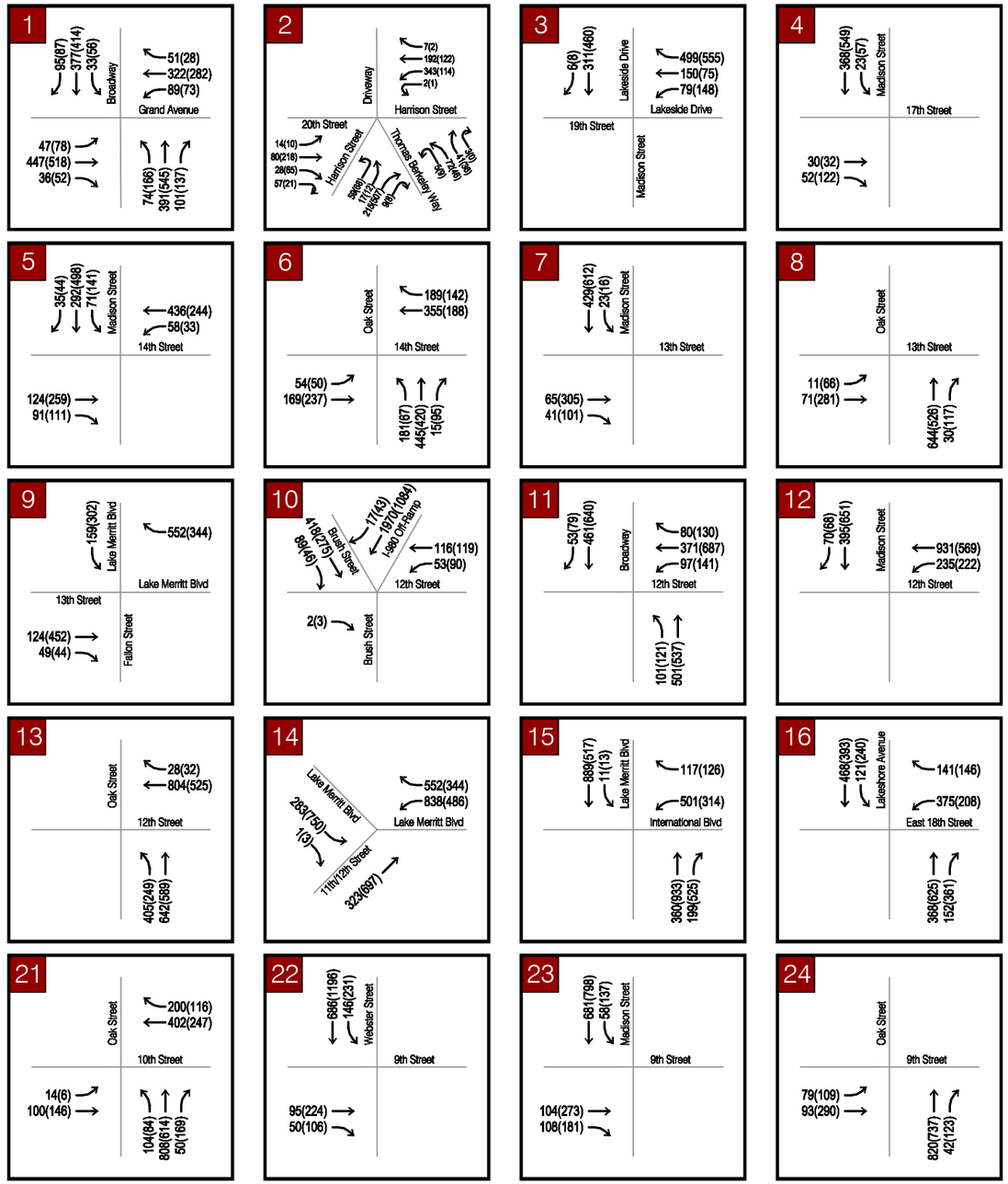

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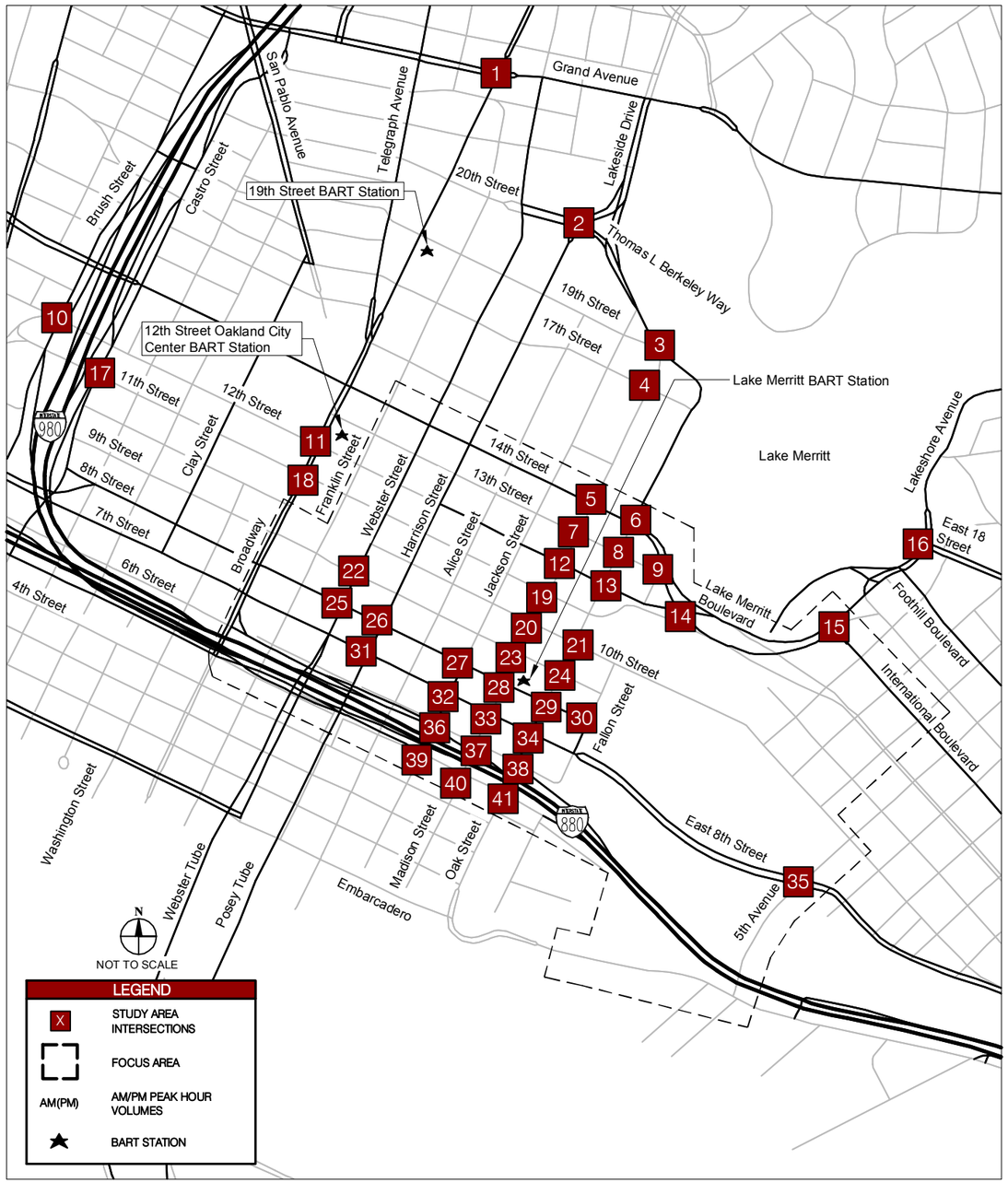
FIGURE 3.2-10
EXISTING PLUS PROJECT VOLUMES
LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS



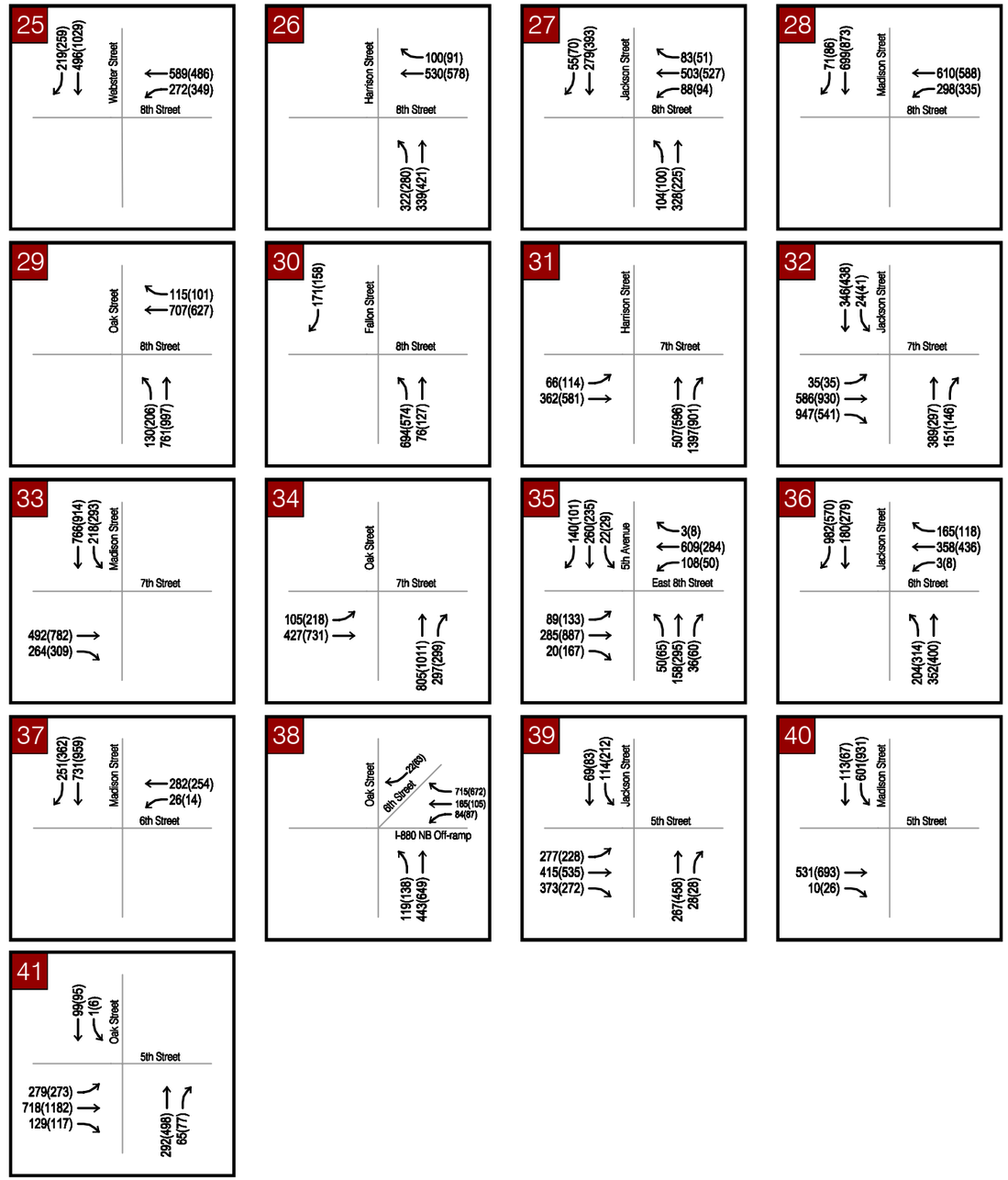


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FIGURE 3.2-10 (continued)
EXISTING PLUS PROJECT VOLUMES
LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS

Existing Plus Project Analysis of City of Alameda Intersections

The bottom of **Table 3.2-9** shows the Existing with and without Project Level of Service and delay for the three intersections in Alameda. As shown in the table, all three intersections operate under the City of Alameda's LOS D criteria without the Project, at LOS C or better. The Lake Merritt Project (at full buildout) adds 93 trips entering Alameda and 99 trips leaving Alameda in the AM peak. In the PM peak, the project adds 203 trips entering Alameda and 83 trips leaving Alameda. These trips are distributed to the intersection movements in Alameda proportionally based on existing traffic volumes.

After adding the Project trips, the intersections on Constitution Way at Marina Village Parkway and Atlantic Avenue continue to operate at LOS B with less than one second of added delay. The intersection of Webster Street and Atlantic Avenue, which operated at LOS C prior to the Project, operates at a LOS D in the AM peak hour with a 4.2 second increase in delay. Although the Project causes a change in Level of Service, it does not cause the Level of Service to exceed the City of Alameda's threshold of LOS D. As a result, this is not a significant impact.

Existing Plus Project Roadway Segment Levels of Service

The roadway segment of Oak Street between 2nd Street and Embarcadero was evaluated under Existing Plus Project traffic conditions. This two-way roadway analysis uses the peak hour link volumes from the south leg of the intersection of Oak Street and 2nd Street under Existing Plus Project conditions.

The capacity of the roadway is determined using the intersection analysis methodology described above which classifies the capacity of a roadway based on factors including signal density, area type, number of lanes, divided or undivided, and presence of left-turn bays. The Project, as defined in the project description, includes lane reductions on Oak Street from two lanes in each direction to one lane in each direction for the installation of bike lanes.

The results of the segment analysis are shown in **Table 3.2-10**. Oak Street intersections, and the segment as a whole, continue to meet the City's Level of Service criteria under Existing Plus Project conditions for both the current four-lane configuration and the proposed two-lane configuration. The LOS does increase in the PM peak from LOS C to LOS D with the lane reduction due to the reduced capacity of the two-lane configuration. However, the service level remains below the LOS E threshold in Existing Plus Project conditions.

Existing Plus Project CMP and MTS Highway Segments

An Existing Plus Project CMP and MTS Highway Segment analysis is not included in this section because the CMA's Land Use Analysis Program requires that large projects that need a General Plan Amendment (such as the Lake Merritt Station Area Plan) must use the ACTC Countywide Travel Demand Forecasting Model for projecting traffic onto the CMP and MTS networks. The model projects traffic in five-year increments (2010, 2015, 2020…etc.), but the model does not have a land use scenario that represents today's (existing) conditions.

Existing Plus Project Freeway Segment Levels of Service

Freeway segments were evaluated within the Planning Area. Freeway volumes for the Existing Plus Project scenario were calculated by adding the estimated Project trip generation to the Existing condition

volumes. The results are shown in **Table 3.2-11.** All freeway segments meet state standards (LOS C), except at the following locations:

- I-880 Northbound from 5th Avenue to Oak Street (AM Peak and PM Peak)
- I-880 Southbound from 5th Avenue to Oak Street (PM Peak)

These freeway segments fail the state's LOS standards without traffic from the Planning Area, except the I-880 Northbound segment from 5th Avenue to Oak Street, where the addition of Project traffic results in degradation to unacceptable LOS in the PM Peak. With Project traffic, the V/C for each freeway segment increases by at least 0.01. Additional detail for the freeway segment analysis is provided in **Appendix D**.

Table 3.2-9: Existing Plus Project Intersection Level of Service

No.	Intersection	Existing				Existing + Project						Impact [1]
		AM Peak		PM Peak		AM Peak			PM Peak			
		LOS	Delay[2]	LOS	Delay[2]	LOS	Delay[2]	ΔDelay[2]	LOS	Delay	ΔDelay[2]	
1	Grand Ave and Broadway	B	20.0	C	29.9	B	19.3	-0.7	D	29.9	0.0	N
2	20th St. and Harrison St	E	69.4	D	36.7	E	71.1	1.7	D	37.4	0.7	N
3	19th St and Madison St	A	4.1	A	3.6	A	4.1	0.0	A	3.6	0.0	N
4	17th St and Madison St	A	7.4	A	7.8	A	7.5	0.1	A	8.3	0.5	N
5	Madison St. and 14th St	B	10.8	C	21.1	B	10.6	-0.2	C	31.9	10.8	N
6	Oak St. and 14th St	B	12.0	B	11.2	B	10.1	-1.9	B	10.2	-1.0	N
7	Madison St. and 13th St	B	11.5	B	10.9	B	11.7	0.2	B	11.8	0.9	N
8	Oak St. and 13th St	A	7.9	B	18.0	B	12.1	4.2	C	21.2	3.2	N
9	Lake Merritt Blvd and 13th St	B	19.9	D	37.3	B	19.9	0.0	E	67.5	30.2	N
10	Brush St and 12th St	E	54.7	C	22.4	E	75.1	20.4	C	22.9	0.5	N
11	Broadway and 12th St	C	20.6	C	24.5	C	21.6	1.0	C	28.1	3.6	N
12	Madison St. and 12th St	B	11.2	B	15.5	B	11.7	0.5	C	24.5	9.0	N
13	Oak St. and 12th St	B	14.1	B	13.1	B	19.2	5.1	B	15.3	2.2	N
14	Lake Merritt Blvd and 11th St	B	10.6	A	7.8	B	11.4	0.8	**F**	**152.3**	**144.5**	**Y TRAN-1**
15	1st Ave. & International Blvd	E	64.6	B	15.1	**F**	**92.1**	**27.5**	B	17.7	2.6	**Y TRAN-2**
16	Lakeshore Ave and 18th St	C	21.3	C	25.1	C	21.4	0.1	C	25.4	0.3	N
17	Castro St and 11th St	C	27.2	C	26.8	C	26.8	-0.4	C	27.0	0.2	N
18	Broadway and 11th St	B	15.8	C	20.0	B	17.5	1.7	C	22.0	2.0	N
19	Madison St. and 11th St	B	10.8	B	13.7	B	14.8	4.0	C	26.8	13.1	N
20	Madison St. and 10th St	B	16.8	A	8.7	**F**	**100.8**	**84.0**	B	18.1	9.4	**Y TRAN-3**
21	Oak St. and 10th St	B	12.8	A	9.8	**F**	**199.9**	**187.1**	C	28.7	18.9	**Y TRAN-4**
22	Webster St. and 9th St	C	25.1	C	29.3	C	25.9	0.8	C	33.1	3.8	N
23	Madison St. and 9th St	B	10.2	A	8.7	A	9.9	-0.3	A	8.2	-0.5	N
24	Oak St. and 9th St	A	5.0	A	9.4	A	4.5	-0.5	A	8.6	-0.8	N
25	Webster St. and 8th St	C	20.6	B	17.3	B	20.0	-0.6	B	17.5	0.2	N

Table 3.2-9: Existing Plus Project Intersection Level of Service

No.	Intersection	Existing				Existing + Project						Impact [1]
		AM Peak		PM Peak		AM Peak			PM Peak			
		LOS	Delay[2]	LOS	Delay[2]	LOS	Delay[2]	ΔDelay[2]	LOS	Delay	ΔDelay[2]	
26	Harrison St. and 8th St	A	9.0	B	11.1	B	10.5	1.5	B	11.4	0.3	N
27	Jackson St. and 8th St	B	13.5	B	13.9	B	15.5	2.0	B	16.6	2.7	N
28	Madison St. and 8th St	A	5.3	A	9.9	A	6.5	1.2	B	11.9	2.0	N
29	Oak St. and 8th St	A	7.7	B	16.0	B	10.1	2.4	B	16.3	0.3	N
30	Fallon St. and 8th St	A	0.0	A	0.0	A	0.0	0.0	A	0.0	0.0	N
31	Harrison St. and 7th St	A	5.5	A	7.1	A	6.3	0.8	A	7.5	0.4	N
32	Jackson St. and 7th St	B	19.8	B	15.0	**F**	**131.5**	**111.7**	**F**	**122.4**	**107.4**	**Y TRAN-5**
33	Madison St. and 7th St	B	17.2	B	11.9	B	19.1	1.9	D	45.1	33.2	N
34	Oak St. and 7th St	B	12.7	B	16.6	B	13.1	0.4	C	22.0	5.4	N
35	5th Ave. and 7th St/8th St	B	13.6	B	15.3	B	14.2	0.6	B	15.8	0.5	N
36	Jackson St. and 6th St	B	15.9	B	18.5	C	23.4	7.5	E	66.7	48.2	N
37	Madison St. and 6th St	A	7.7	A	9.5	A	9.2	1.5	B	17.8	8.3	N
38	Oak St. and 6th St	B	11.1	A	9.0	D	52.4	41.3	**F**	**155.6**	**146.6**	**Y TRAN-6**
39	Jackson St. and 5th St	B	15.9	C	25.5	B	17.2	1.3	**F**	**174.3**	**148.8**	**Y TRAN-7**
40	Madison St. and 5th St	A	7.1	B	13.2	B	10.6	3.5	B	15.2	2.0	N
41	Oak St. and 5th St	B	12.3	D	43.1	B	13.3	1.0	E	60.1	17.0	N
42	NA (Segment analysis below)											
	City of Alameda Intersections											
43	Constitution & Marina Village	B	13.8	B	14.3	B	14.4	0.6	B	14.6	0.3	N
44	Constitution Wy & Atlantic Av	B	13.8	B	12.9	B	14.0	0.2	B	13.3	0.4	N
45	Webster St & Atlantic Av	C	32.9	C	26.4	D	37.1	4.2	C	27.2	0.8	N

Notes: Locations operating at unacceptable levels are shown in **BOLD**, and impacted intersections are highlighted.

[1] This column identifies intersections that have been impacted based on the City of Oakland's CEQA significance thresholds (or the City of Alameda's Level of Service criteria) and, if there is a significant impact, the impact number (TRAN-XX) is shown in this column.

[2] Delay is presented in seconds per vehicle. ΔDelay represents the change in delay (seconds per vehicle) between the with and without Project scenarios. Calculation of delay in over-capacity conditions (i.e. LOS F) is not reliable. Therefore, delay in excess of 80 seconds should not be interpreted as an exact representation of actual delay.

Source: Kimley-Horn and Associates, Inc. (2013)

Table 3.2-10: Existing Plus Project Roadway Segment Levels of Service

Street Segment	*Existing Conditions*						*Existing + Project*								*Impact*[1]
	AM Peak			*PM Peak*			*AM Peak*				*PM Peak*				
	Vol	*LOS*	*V/C Ratio*	*Vol*	*LOS*	*V/C Ratio*	*Vol*	*LOS*	*V/C Ratio*	*ΔV/C Ratio*	*Vol*	*LOS*	*V/C Ratio*	*ΔV/C Ratio*	
Oak Street															
2nd Street to Embarcadero (4-Lanes / Divided)	435	C	0.22	710	C	0.35	486	C	0.24	0.02	783	C	0.39	0.04	N
2nd Street to Embarcadero (2-Lanes / Divided)	NA	NA	NA	NA	NA	NA	486	D	0.49	0.27	783	D	0.80	0.45	N

Source: Kimley-Horn and Associates, Inc. (2013)

Table 3.2-11: Existing Plus Project Freeway Segment Levels of Service

Freeway Segment	*LOS Thresh-hold*	*Existing*				*Existing + Project*						*Impact*
		AM Peak		*PM Peak*		*AM Peak*			*PM Peak*			
		LOS	*V/C*	*LOS*	*V/C*	*LOS*	*V/C*	*Δ V/C*	*LOS*	*V/C*	*Δ V/C*	
I-880 - 5th Avenue to Oak Street												
Northbound	E	**F**	**1.05**	E	0.99	**F**	**1.09**	**0.04**	**F**	**1.02**	**0.03**	**Y TRAN-8**
Southbound	E	D	0.90	**F**	**1.01**	E	0.92	0.02	**F**	**1.05**	**0.04**	
I-880 - Oak Street to Jackson Street												
Northbound	E	E	0.96	E	0.92	E	0.97	0.01	E	0.93	0.01	N
Southbound	E	D	0.86	E	0.95	D	0.86	0.00	E	0.95	0.00	N
I-880 - Jackson Street to I-980												
Northbound	E	D	0.85	D	0.83	D	0.87	0.01	D	0.86	0.02	N
Southbound	E	C	0.64	C	0.66	C	0.64	0.01	C	0.67	0.01	N
I-980 - I-880 to 14th Street												
Eastbound	E	D	0.83	D	0.83	D	0.84	0.01	D	0.84	0.01	N
Westbound	E	B	0.51	B	0.50	B	0.52	0.01	B	0.51	0.01	N
I-980 - 14th Street to 18th Street												
Eastbound	E	C	0.65	C	0.75	C	0.66	0.01	D	0.76	0.01	N
Westbound	E	B	0.45	A	0.33	B	0.46	0.01	B	0.34	0.01	N

Source: Kimley-Horn and associates, Inc.

Existing Plus Project AC Transit Bus Travel Times

The discussion of transit travel time is based on application of Significance Threshold #9. In general, the City of Oakland has no basis to establish a numerical threshold for "substantially increased travel times" due to several factors:

- First, bus service, in general, can change quite frequently over time in response to external factors, as is the case with AC Transit's bus network. During the duration of the Proposed Amendments, existing routes may no longer exist or new routes may be added to service or altered in some way. In fact, AC Transit has generally reduced its bus service over the past few years in response to budget issues. Similar to parking, transit service is not part of the physical environment, and can change.

- Second, any numerical threshold to determine the significance of increased travel times needs to consider additional characteristics of the bus service, including its headway (the amount of time between scheduled trips) and total travel time. Given the changeable nature of bus service, establishing such thresholds is not reasonable, as service can be rerouted, eliminated, or created at any time. Consideration would also have to be given to different types of transit service (e.g., trunk service, Transbay service, local service, and community service), as they generally operate with different characteristics.

- Third, unlike the situation for intersections or roadway facilities, there are no well-established methodologies for characterizing the operations of transit service in relation to travel times. For

intersections, clear distinctions are made between intersections that operate at acceptable conditions (e.g., LOS D or better) and those that operate at unacceptable conditions (e.g., LOS E or LOS F), and separate impact thresholds are provided. For bus service, however, there is no well-established LOS equivalent for characterizing transit service in relation to travel times.

The three factors above are basic factors that make estimating AC Transit travel times with reasonable certainty throughout the life of the project, or establishing numerical thresholds for AC Transit travel times, difficult and impractical. However, to the extent feasible, this section provides an analysis of how the Project would affect transit travel times.

Traffic operations were evaluated on 7th Street, 8th Street, Oak Street, and Madison Street to assess the effect of the Project on AC Transit bus travel times. Travel times were calculated in the Existing Plus Project condition and compared with the Existing No Project condition. The comparison is presented in **Table 3.2-12**. The analysis indicates there will be an increase in AC Transit bus travel times. The greatest increase in travel time is 90 seconds (1.5 minutes) in the PM peak hour on Madison Street.

Although not reflected in the quantitative travel time analysis in **Table 3.2-12**, various transit access improvement policies that are part of the Lake Merritt Station Area Plan, including policies C-33 and C-46 that call for transit signal priority, bus bulbs, and improved management of curb space— will contribute to offsetting any increase in travel time due to the Project. Therefore, this impact is considered less than significant and no mitigation is required.

Table 3.2-12: Existing Plus Project AC Transit Bus Travel Times

Arterial	*Limits*	*Dir*	*Existing*		*Existing + Project*			
			AM	*PM*	*AM*		*PM*	
			Travel Time (sec)		*Travel Time (sec)*	*Δ Travel Time (sec)*	*Travel Time (sec)*	*Δ Travel Time (sec)*
7th	Harrison to Oak	EB	87	89	88	1	93	4
8th	Fallon to Webster	WB	197	193	212	15	205	12
Madison	11th to 7th	SB	94	94	106	12	184	90
Oak	7th to 12th	NB	99	108	114	15	113	5

Source: Kimley-Horn and Associates, Inc. (2013)

Analysis of Interim 2020 No Project Conditions

This section evaluates cumulative conditions in the year 2020 to assess the effects of planned transportation improvements and projected increases in traffic volumes on traffic operations without implementation of the Project The projected traffic growth is based on the amount of development growth allowed for in Oakland's General Plan and other cumulative development by the year 2020 without implementation of the Project.

Interim 2020 No Project Lane Configuration and Traffic Control

Figure 3.2-11 illustrates the anticipated 2020 No Project roadway geometry and traffic control planned and approved by the City of Oakland and other agencies as part of the planned transportation improvements described starting on page 3.2-51. In addition to agency-approved changes in geometry and

traffic control, the Interim 2020 No Project scenario assumes that signal timing parameters that do not require upgrades to the signal equipment, such as amount of green time assigned to each intersection approach, would be optimized at the signalized study intersections. This assumption reflects current City of Oakland practice that incorporates basic signal timing changes into routine maintenance of the traffic signal system. It is expected that retiming of signals in areas with the greatest need (e.g., major streets, areas with rapidly shifting traffic patterns) would be prioritized as part of the regular ongoing maintenance of signal equipment.

Interim 2020 No Project Intersection Level of Service

Existing traffic volumes, combined with the growth in vehicle trips projected between 2012 and 2020 were used to evaluate Level of Service at the study intersections. **Figure 3.2-12** shows the projected 2020 turning movements at each study intersection, and **Table 3.2-13** summarizes the resulting intersection Level of Service.

Table 3.2-13: Interim 2020 No Project Intersection Levels of Service

No.	*Intersection*	*Interim 2020 No Project Intersection Level of Service*							
		AM Peak				*PM Peak*			
		LOS	*Delay[1]*	*V/C[2]*	*Critical V/C[2]*	*LOS*	*Delay[1]*	*V/C[2]*	*Critical V/C[2]*
1	Grand Ave and Broadway	B	19.5			**F**	**84.4**	**1.24**	**2.01**
2	20th St. and Harrison St	C	20.3			C	20.5		
3	19th St and Madison St	B	13.9			A	7.9		
4	17th St and Madison St	A	8.4			A	9.6		
5	Madison St. and 14th St	B	15.8			B	15.7		
6	Oak St. and 14th St	**F**	**98.8**	**0.91**	**1.64**	**F**	**174.4**	**0.77**	**1.59**
7	Madison St. and 13th St	B	11.7			B	11.8		
8	Oak St. and 13th St	B	10.8			B	13.6		
9	Lake Merritt Blvd and 13th	B	15.2			B	15.1		
10	Brush St and 12th St	E	73.0			C	25.0		
11	Broadway and 12th St	B	15.8			C	23.2		
12	Madison St. and 12th St	B	10.7			B	11.2		
13	Oak St. and 12th St	B	11.1			B	11.1		
14	Lake Merritt Blvd and 11th	B	16.0			C	25.0		
15	1st and International Blvd	B	17.8			C	22.7		
16	Lakeshore Ave & 18th St	B	14.3			B	17.8		
17	Castro St and 11th St	C	30.6			C	24.6		
18	Broadway and 11th St	B	16.3			B	18.4		
19	Madison St. and 11th St	B	10.4			B	14.0		
20	Madison St. and 10th St	A	8.7			B	19.1		
21	Oak St. and 10th St	A	9.4			A	8.5		
22	Webster St. and 9th St	C	26.4			C	33.5		

Table 3.2-13: Interim 2020 No Project Intersection Levels of Service

No.	Intersection	Interim 2020 No Project Intersection Level of Service							
		AM Peak				PM Peak			
		LOS	Delay[1]	V/C[2]	Critical V/C[2]	LOS	Delay[1]	V/C[2]	Critical V/C[2]
23	Madison St. and 9th St	A	7.4			A	7.2		
24	Oak St. and 9th St	A	5.1			A	9.1		
25	Webster St. and 8th St	D	37.9			C	26.1		
26	Harrison St. and 8th St	B	11.9			B	10.9		
27	Jackson St. and 8th St	B	17.1			B	12.2		
28	Madison St. and 8th St	B	10.2			B	11.5		
29	Oak St. and 8th St	B	15.0			B	14.9		
30	Fallon St. and 8th St	A	0.0			A	0.0		
31	Harrison St. and 7th St	A	7.2			A	9.0		
32	Jackson St. and 7th St	B	19.8			B	13.8		
33	Madison St. and 7th St	B	16.1			C	21.5		
34	Oak St. and 7th St	B	12.3			C	24.6		
35	5th Ave. and 7th St/8th St	C	28.9			C	33.0		
36	Jackson St. and 6th St	**F**	**105.2**	**1.02**	**1.61**	E	58.0		
37	Madison St. and 6th St	A	8.5			A	7.3		
38	Oak St. and 6th St	B	13.2			D	39.9		
39	Jackson St. and 5th St	B	17.1			C	31.4		
40	Madison St. and 5th St	A	8.9			B	16.6		
41	Oak St. and 5th St	D	41.6			**F**	**89.9**	**1.04**	**1.53**
42	NA (Segment analysis below)								
	City of Alameda Intersections								
43	Constitution & Marina Village	B	14.0			B	14.5		
44	Constitution Wy & Atlantic Av	B	14.2			B	13.8		
45	Webster St & Atlantic Av	C	32.9			C	26.3		

Notes:

Locations operating at unacceptable levels are shown in BOLD.

[1] Delay is presented in seconds per vehicle. Calculation of delay in over-capacity conditions (i.e. LOS F) is not reliable. Therefore, delay in excess of 80 seconds is only reported to allow a relative comparison of conditions without and with project traffic and should not be interpreted as an exact representation of actual delay.

[2] V/C = the ratio of the volume of traffic passing through an intersection to the capacity of the intersection's lane groups. The V/C ratio is the average V/C ratio for the entire intersection, and is an indicator of the utilization of intersection's overall capacity. The critical V/C ratio is the highest ratio of all of the intersection's approaches and lane groups. The critical V/C will control the amount of a traffic signal's green time that can be shared between all of the approaches.

Source: Kimley-Horn and Associates, Inc. (2013).

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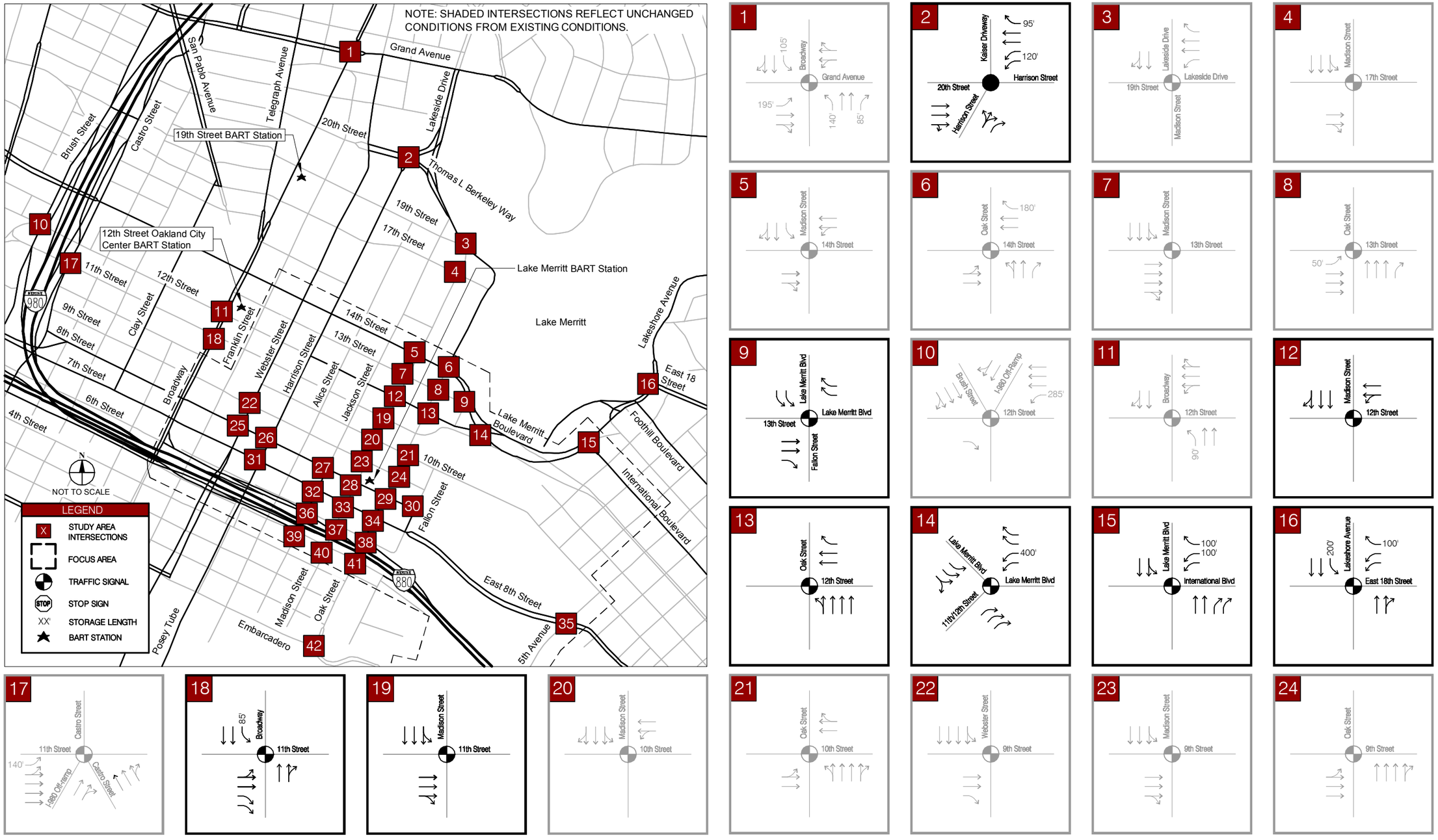
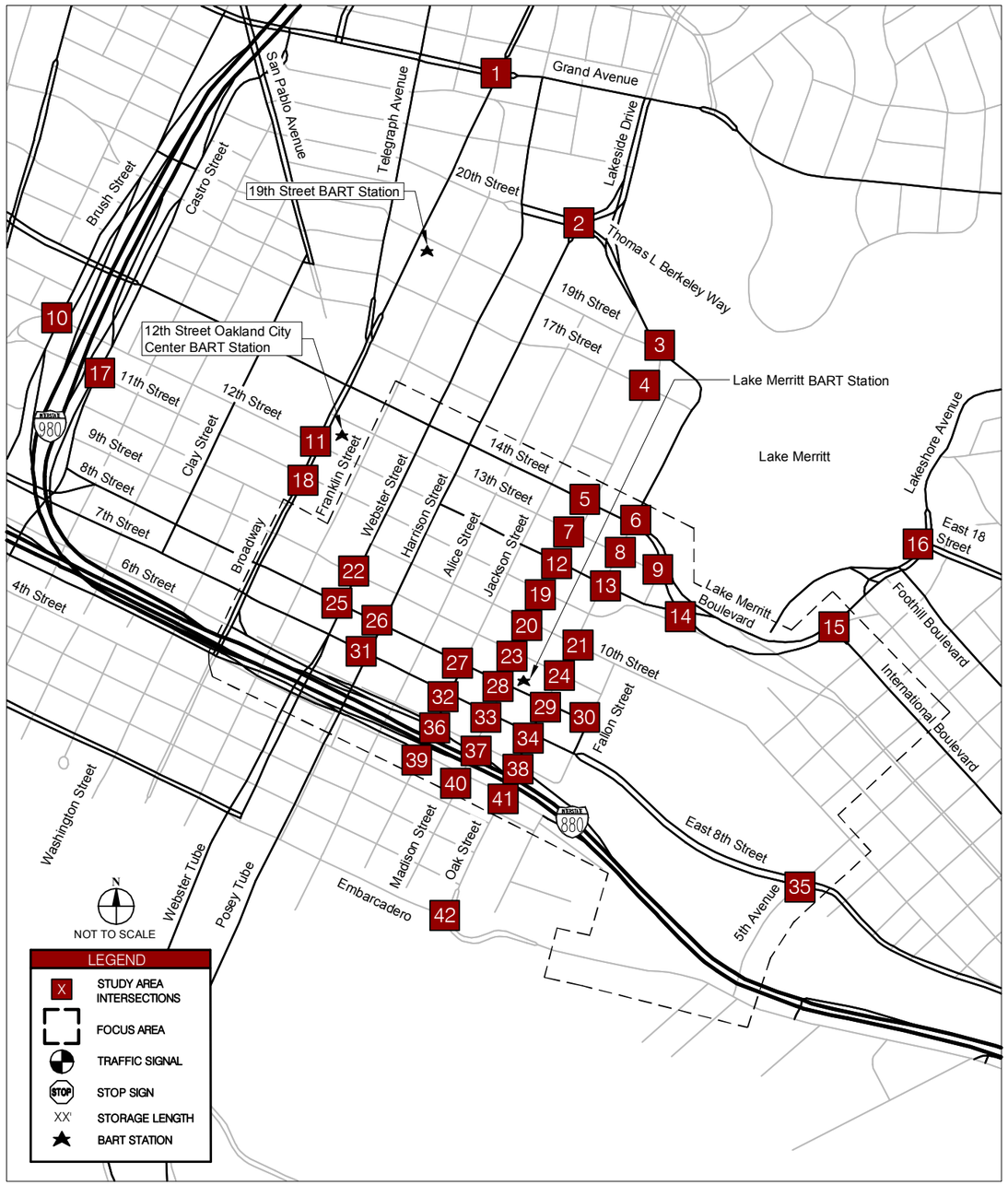
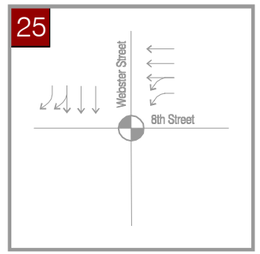
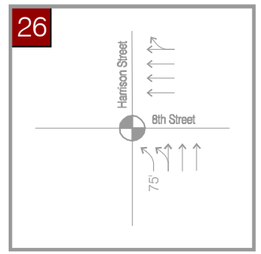
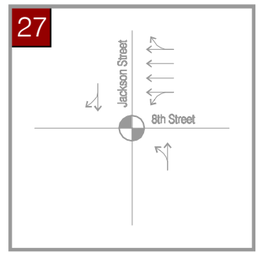


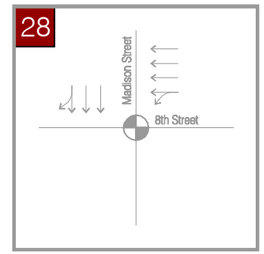
FIGURE 3.2-11
INTERIM 2020 NO PROJECT CONDITION - LANE GEOMETRY AND TRAFFIC CONTROL
LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS

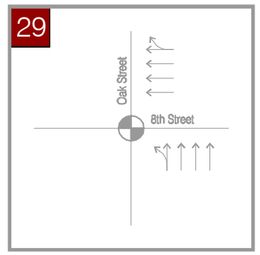


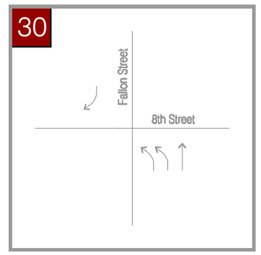


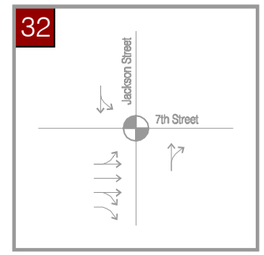


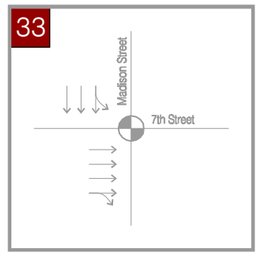


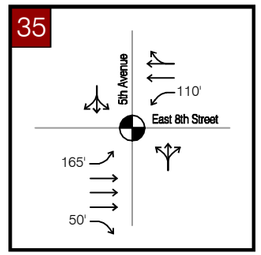


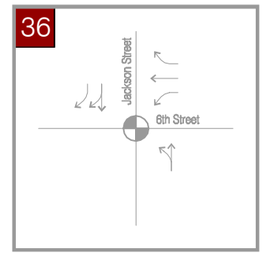


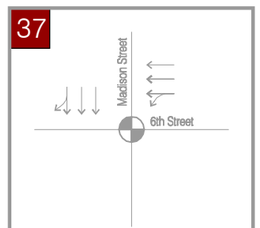


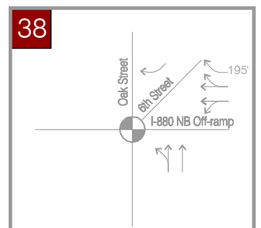


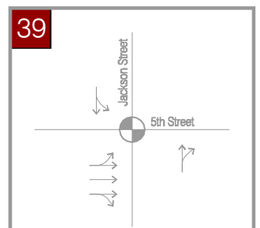


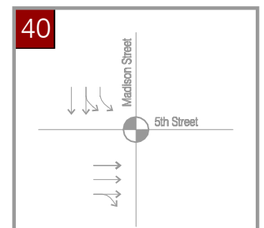


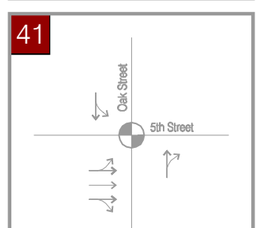


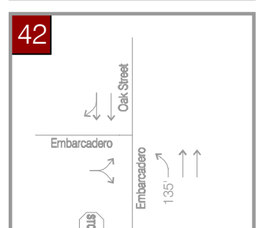












NOTE: SHADED INTERSECTIONS REFLECT UNCHANGED CONDITIONS FROM EXISTING CONDITIONS.

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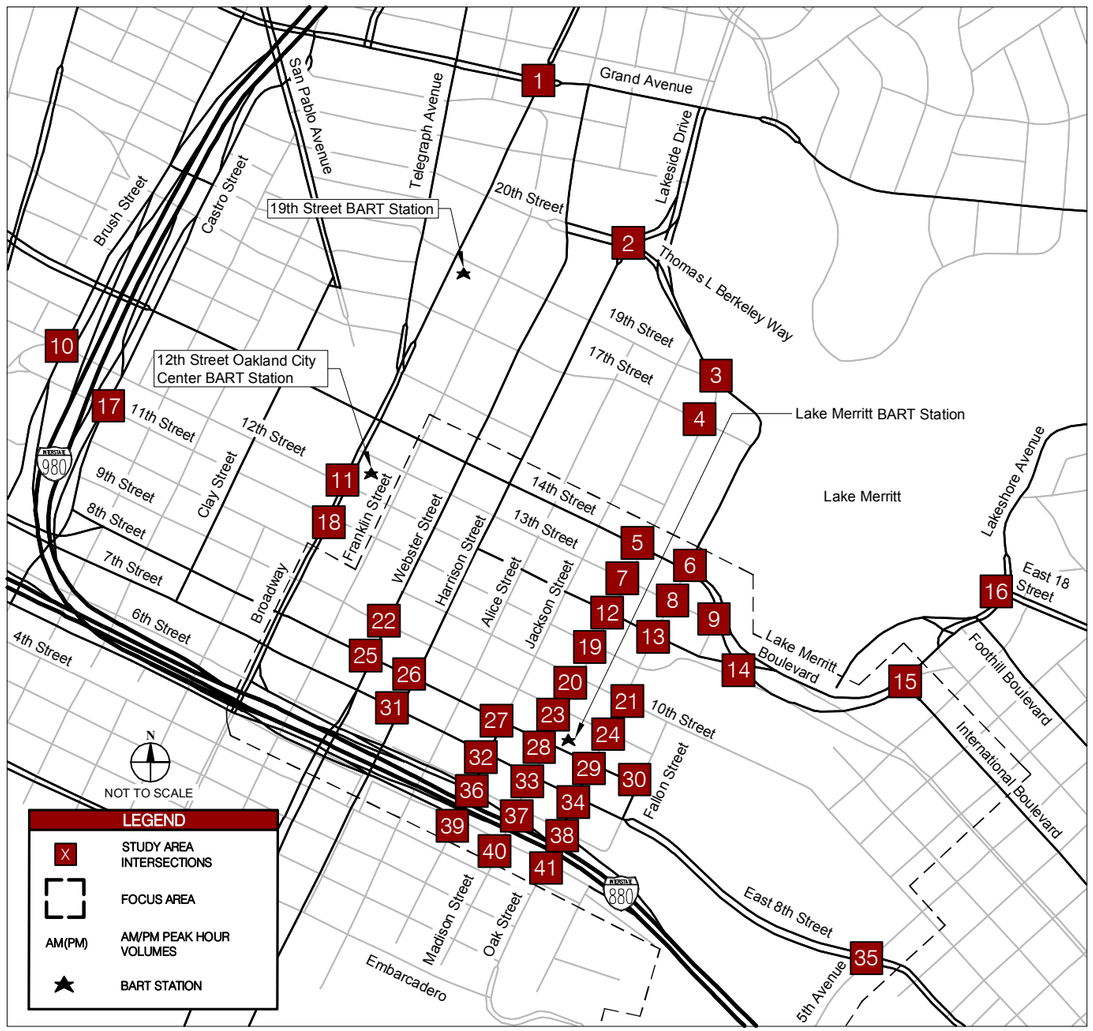
FIGURE 3.2-11 (continued)
INTERIM 2020 NO PROJECT CONDITION - LANE GEOMETRY AND TRAFFIC CONTROL
LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS



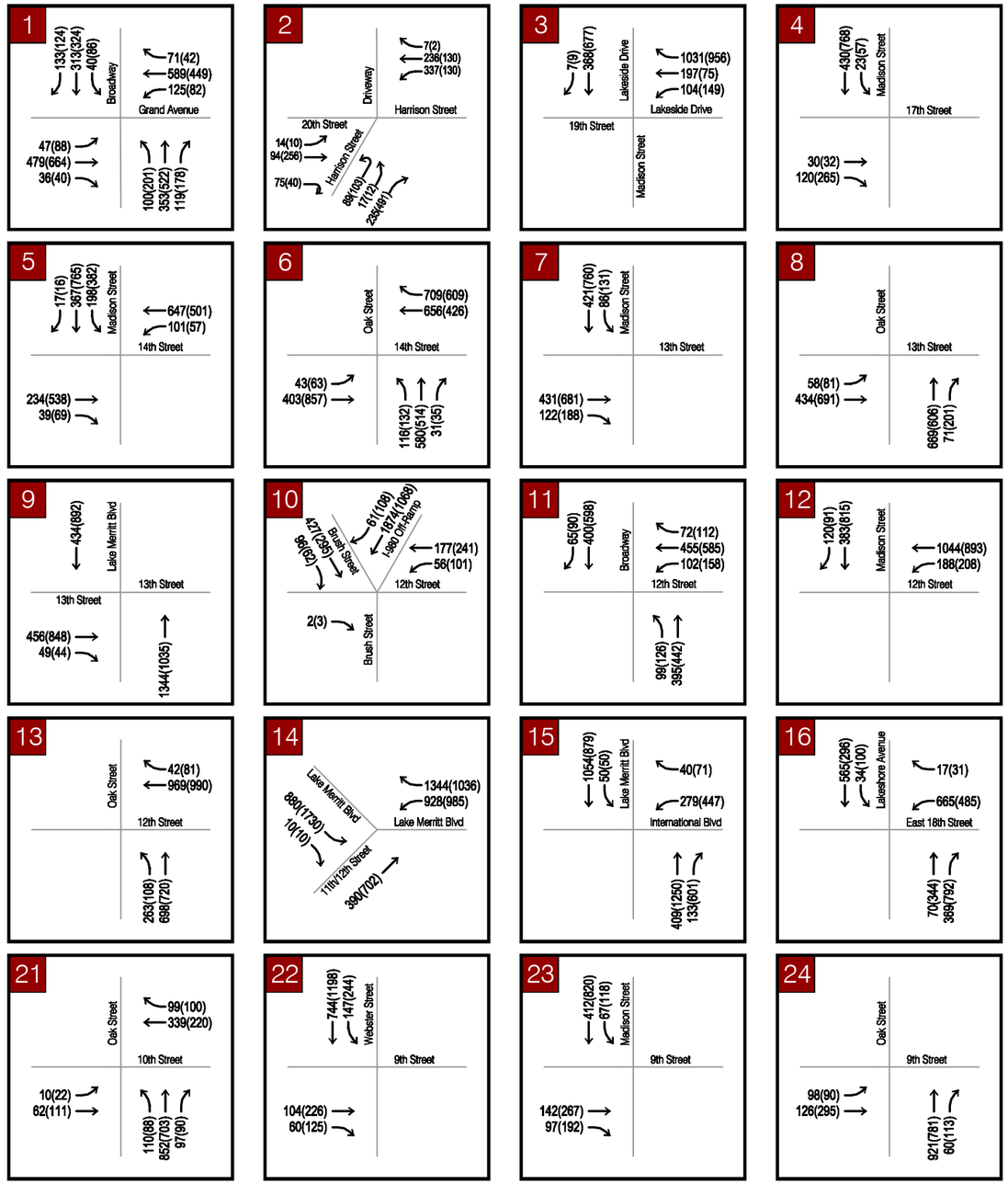


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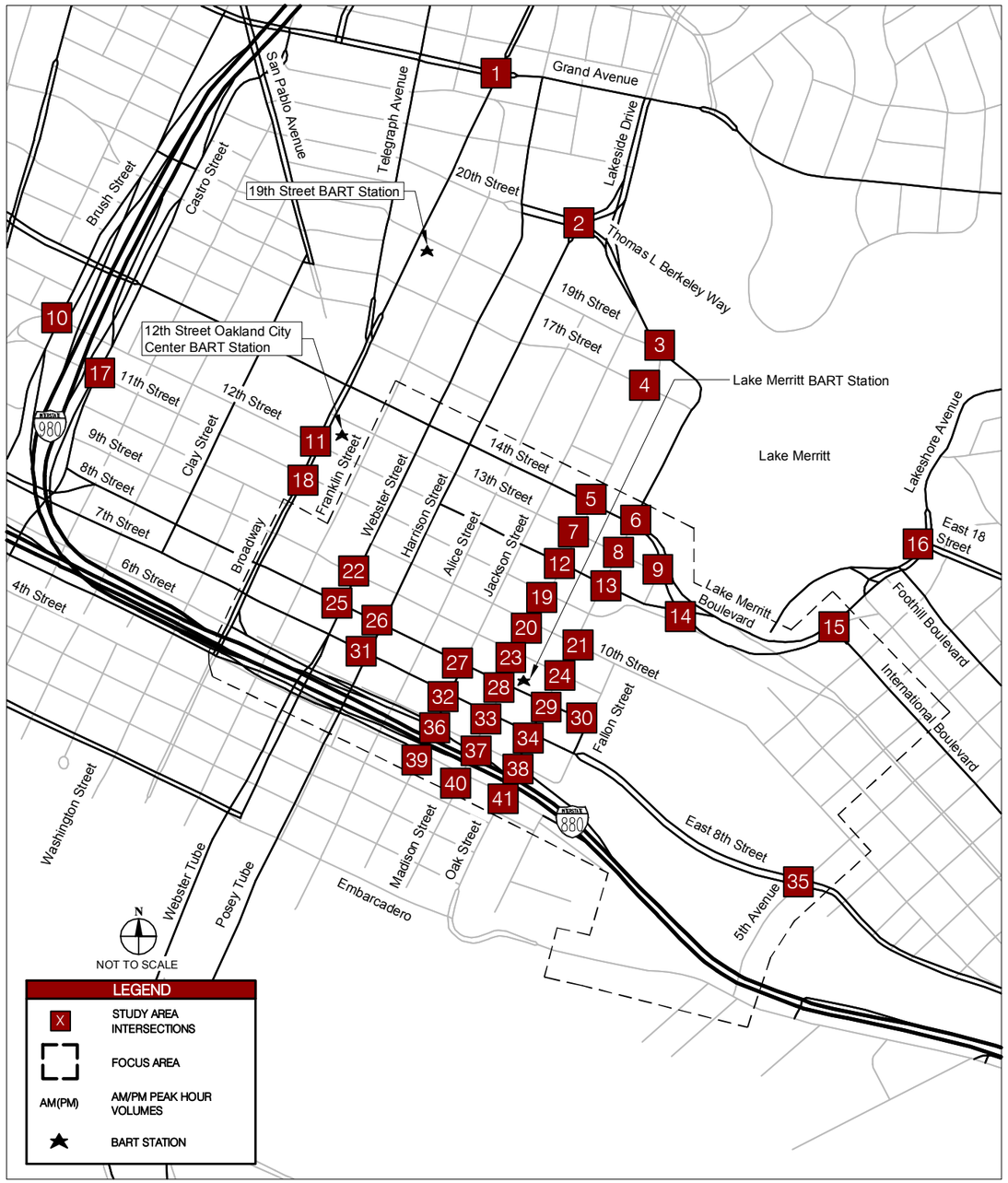
FIGURE 3.2-12

INTERIM 2020 NO PROJECT CONDITION - AM/PM PEAK HOUR TURNING MOVEMENT VOLUMES

LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS



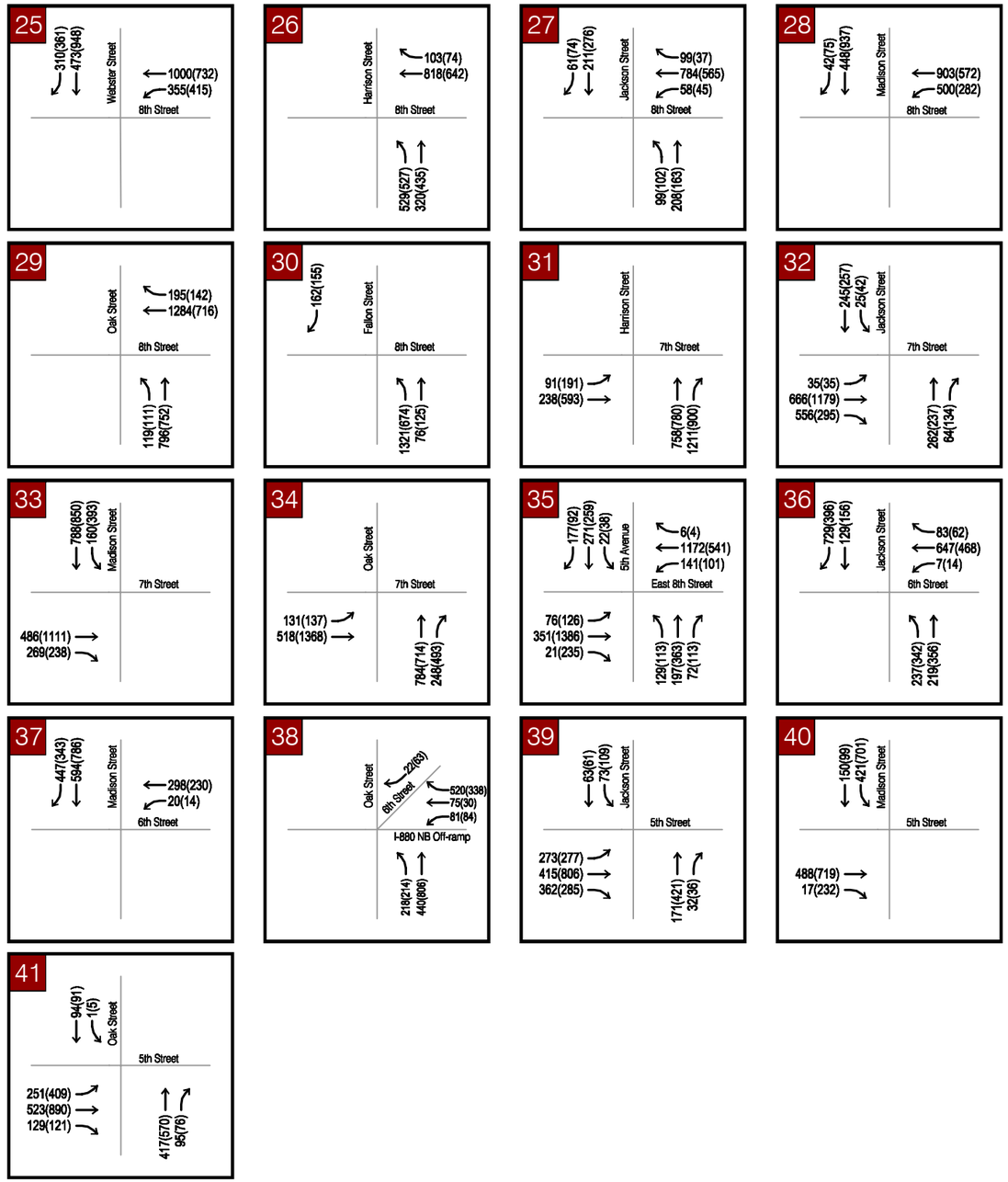


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FIGURE 3.2-12 (continued)

INTERIM 2020 NO PROJECT CONDITION - AM/PM PEAK HOUR TURNING MOVEMENT VOLUMES

LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS

Interim 2020 No Project Roadway Segment Level of Service

An evaluation of traffic operations on Oak Street between 2nd Street and Embarcadero under Interim 2020 No Project traffic conditions is presented in **Table 3.2-14**. This two-way roadway analysis uses the peak hour link volumes from the south leg of the intersection of Oak Street and 2nd Street under Interim 2020 conditions. The capacity of the roadway is determined from the roadway analysis methodology that accounts for the classification of a roadway, and other intersection and roadway characteristics as described in **Appendix D**. According to the analysis results shown in **Table 3.2-14**, this roadway segment satisfies Level of Service standards in the Interim 2020 No Project conditions.

Table 3.2-14: Interim 2020 No Project Roadway Segment Levels of Service

Street Segment – Oak Street	*Segment Description*	*Criteria*	*Interim 2020 No Project*					
			AM Peak			*PM Peak*		
			Volume	*LOS*	*V/C Ratio*	*Volume*	*LOS*	*V/C Ratio*
2nd Street to Embarcadero	4 Lanes / Divided	E	636	C	0.32	854	D	0.42

Source: Kimley-Horn and Associates, Inc. (2013)

Interim 2020 No Project Freeway Segment Levels of Service

Traffic operations were evaluated on freeway segments in the Planning Area. Freeway volumes for the Interim 2020 No Project scenario were calculated by taking the incremental difference in the County's model volumes from year 2020 and year 2005 on each freeway segment to determine an annual growth. The annual growth rate was then applied to the existing Caltrans counts taken in 2011 to grow to Interim 2020 No Project.

According to the analysis results shown in **Table 3.2-15**, all freeway segments satisfy operational standards, except at the following locations:

- I-880 Northbound from 5th Avenue to Oak Street (AM Peak and PM Peak)
- I-880 Southbound from 5th Avenue to Oak Street (PM Peak)
- I-880 Northbound from Oak Street to Jackson Street (AM Peak) I-880 Southbound from Oak Street to Jackson Street (PM Peak)

Note that these freeway segments fail the operational standards without traffic from the proposed Plan. Additional detail of the analysis is provided in **Appendix D.**

Table 3.2-15: Interim 2020 No Project Freeway Segment Levels of Service

Freeway Segment	*LOS Threshold*	*Interim 2020 No Project*			
		AM Peak		*PM Peak*	
		LOS	*V/C*	*LOS*	*V/C*
I-880 - 5th Avenue to Oak Street					
Northbound	E	**F**	**1.10**	**F**	**1.03**
Southbound	E	E	0.94	**F**	**1.06**
I-880 - Jackson Street to I-980					
Northbound	E	E	0.91	D	0.89
Southbound	E	C	0.68	C	0.71
I-980 - I-880 to 14th Street					
Eastbound	E	D	0.87	D	0.88
Westbound	E	B	0.54	B	0.52
I-980 - 14th Street to 18th Street					
Eastbound	E	C	0.66	D	0.76
Westbound	E	B	0.45	A	0.33

Note: Locations operating at unacceptable levels are shown in **BOLD** and impacts are highlighted.

Freeway segments were analyzed using HCM methodology, which measures volume to capacity (V/C) to determine LOS.

Source: Kimley-Horn and Associates, Inc. (2013)

Interim 2020 No Project CMP Highway Segments

Traffic forecasts for 2020 were extracted from the County model at the required CMP and MTS highway segments. The evaluation of the PM peak hour complied with the County's CMP requirements. The PM peak hour volumes, V/C ratios and the Level of Service for the No Project and Plus Project conditions represent both directions of flow. **Table 3.2-16** provides results for the 2020 No Project scenario.

Table 3.2-16: CMP Segment Evaluation for Interim 2020 No Project Scenario

Segment	*Northbound / Eastbound*					*Southbound / Westbound*				
	Vol	*Cap*	*V/C*	*Lns*	*LOS*	*Vol*	*Cap*	*V/C*	*Lns*	*LOS*
Interstate/State Highways										
I-880 - south of Oak Street	7,561	8,400	0.90	4	E	7,947	10,500	0.76	5	D
I-880 - north of Castro Street	4,468	6,300	0.71	3	C	4,074	6,300	0.65	3	C
Arterial Streets										
14th Street - north of Franklin Street	111	1,800	0.06	2	B	45	1,800	0.03	2	B
Harrison Street - south of 14th Street	539	1,800	0.30	2	C	416	1,800	0.23	2	C
Webster Street - south of 14th Street	n/a	n/a	n/a	n/a	n/a	1,000	2,710	0.37	3	C
Broadway - south of 14th Street	111	1,800	0.06	2	B	84	1,800	0.05	2	B
7th Street - West of Jackson Street	2,113	3,320	0.64	4	D	n/a	n/a	n/a	n/a	n/a
8th Street - East of Webster Street	1,776	3,320	0.53	4	C	n/a	n/a	n/a	n/a	n/a

Source: Alameda CTC P09 Countywide Model, Kittelson & Associates, Inc. 2012

Interim 2020 No Project AC Transit Bus Travel Times

Travel times on 7th Street, 8th Street, Oak Street, and Madison Street were evaluated to establish a baseline condition used to assess the effect of the Project's lane reconfigurations and additional traffic on AC Transit vehicle mobility through the corridors. Baseline travel times for the Interim 2020 No Project condition are presented in **Table 3.2-17**. As shown in the table, the maximum travel time in the AM peak hour on any of the study segments is 244 seconds (about 4-minutes) (westbound on 8th Street). This same segment also produces the greatest travel time in the PM peak hour—a maximum travel time of 207 seconds (about 3 ½-minutes).

Table 3.2-17: Interim 2020 No Project AC Transit Bus Travel Times

Arterial	*From*	*To*	*Direction*	*Arterial Class*	*Interim 2020*	
					AM Peak	*PM Peak*
					Travel Time (secs)	
7th Street	Harrison Street	Oak Street	EB	IV	100	125
8th Street	Fallon Street	Webster Street	WB	IV	244	207
Madison Street	11th Street	7th Street	SB	IV	85	147
Oak Street	7th Street	12th Street	NB	IV	97	104

Source: Kimley-Horn and Associates, Inc. (2013)

Analysis of Interim 2020 Plus Project Conditions

The Interim 2020 Plus Project scenario evaluates the effect on Level of Service of the net change in traffic between the Project and the Interim 2020 No Project scenario.[40] The net vehicle trips generated by the development allowed by the Lake Merritt Station Area Plan in the Interim 2020 Plus Project condition are shown in **Figure 3.2-13**. These trips were added to the Interim 2020 No Project volumes to derive the Interim 2020 Plus Project traffic volumes. This scenario also assumes the transportation improvements considered part of the project description (implementation of the bicycle lanes on portions of Madison, Oak, 8th, 9th and 10th Streets, with roadway geometry and traffic control changes, as illustrated in **Figure 3.2-14**).

Interim 2020 Plus Project Intersection Levels of Service

An evaluation of Level of Service under Interim 2020 Plus Project traffic conditions at the study intersections, and with the volumes shown in **Figure 3.2-15,** is presented in **Table 3.2-18.** All study intersections function within acceptable standards, except at the following locations:

- Brush Street / 12th Street / WB I-980 off-ramp
- Jackson Street / 6th Street and NB I-880 on-ramp
- Oak Street / 6th Street and NB I-880 off-ramp
- Oak Street / 5th Street and SB I-880 on-ramp

[40] Since the Interim 2020 No Project traffic projections include projected development within the study area, adding the traffic generated by the Plan would "double count" development of the Lake Merritt Station Area Plan's opportunity sites in the resulting 2020 Plus Project traffic volumes. To avoid this double counting, the forecasting methodology used the procedure described in the methodology section. Details of the methodology are located in **Appendix D.**

All the intersections listed above exceed the threshold for increases in delay or volume to capacity ratio with the addition of Project traffic and transportation improvements.

Interim 2020 Plus Project Roadway Segment Levels of Service

The analysis results shown in **Table 3.2-19** indicate that the Oak Street roadway segment satisfies operational standards in the Interim 2020 Plus Project conditions for both the current 4-lane configuration and the proposed 2-lane configuration. The Level of Service degrades in the AM peak from LOS C to LOS D and in the PM peak from LOS D to LOS E with the reduced capacity of the street as a result of implementing bicycle lanes and associated removal of vehicular travel lanes.

Interim 2020 Plus Project Freeway Segment Levels of Service

A Level of Service analysis of freeway segments in the Planning Area is presented in **Table 3.2-20**. Freeway volumes for the Interim 2020 Plus Project scenario are estimated by adding Project traffic volumes to the freeway segment volumes forecast for the Interim 2020 No Project scenario. The analysis results shown in **Table 3.2-20**, indicate that freeway segments satisfy operational standards, except the segment of Northbound I-880 from Oak Street to Jackson Street (AM Peak).

The freeway segment on northbound I-880 from Oak Street to Jackson Street does not experience an increase in V/C (a change in V/C of 0.03 or more constitutes a significant impact where a freeway segment operates at LOS F without the Project), and therefore is not considered a significant impact. Additional detail of the freeway segment analysis is located in **Appendix D**.

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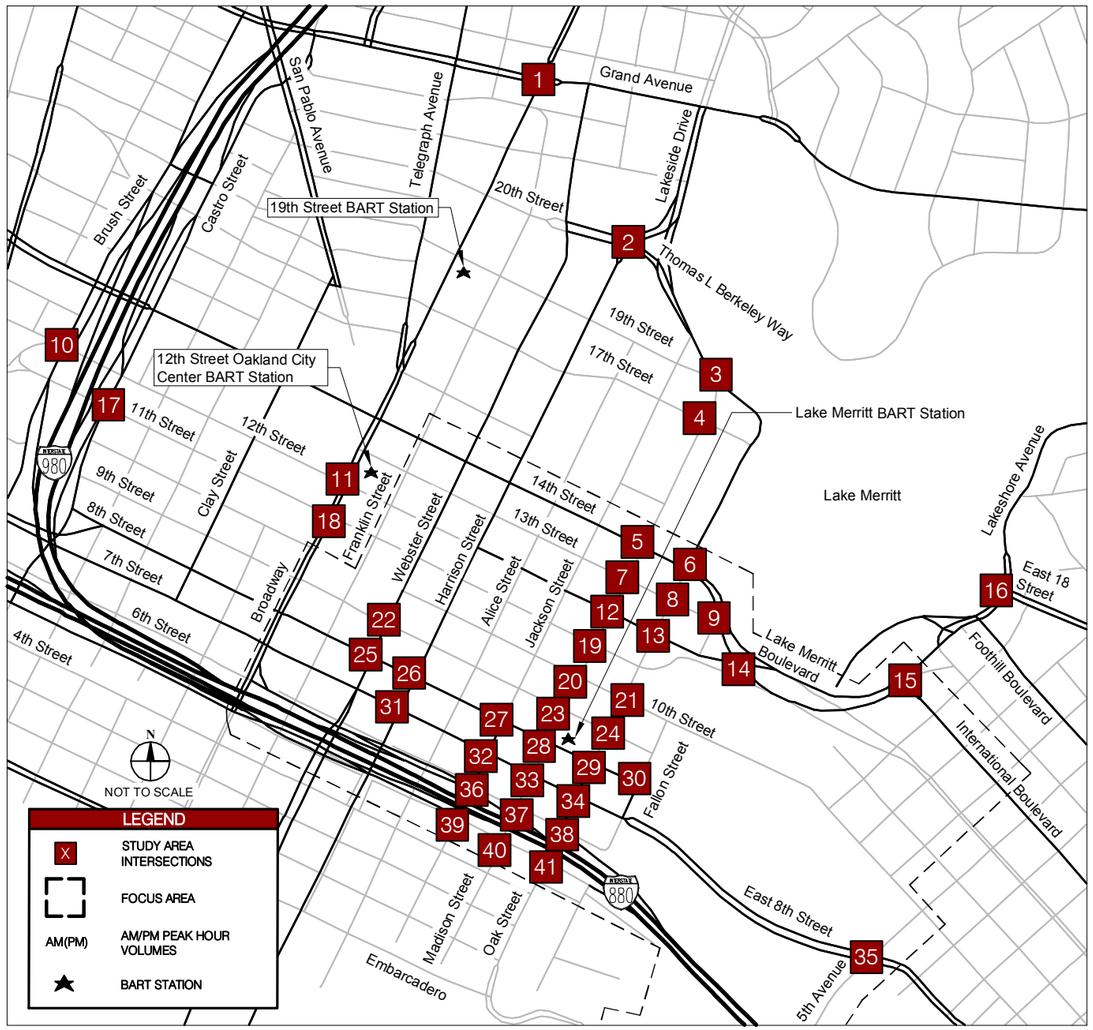

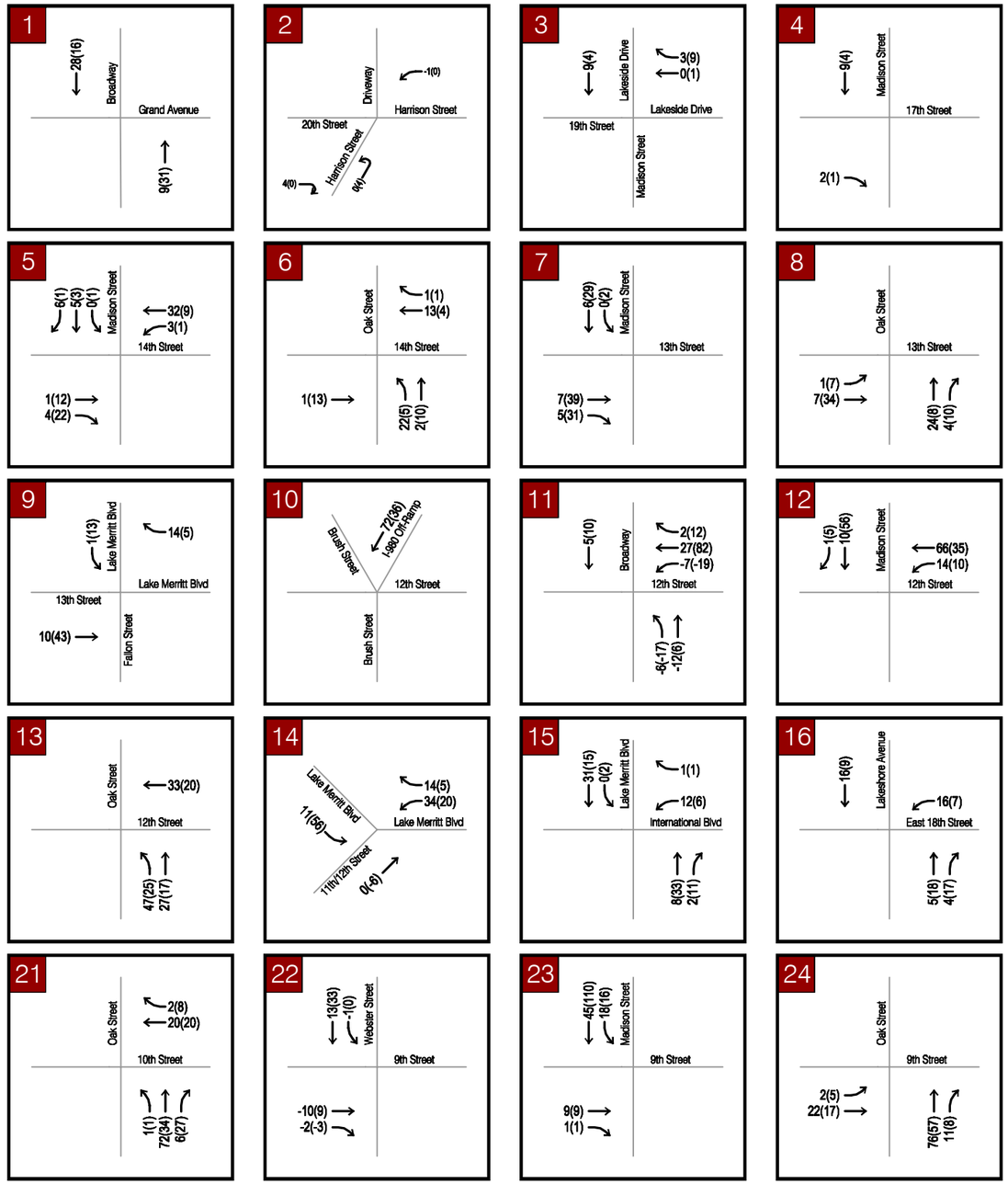

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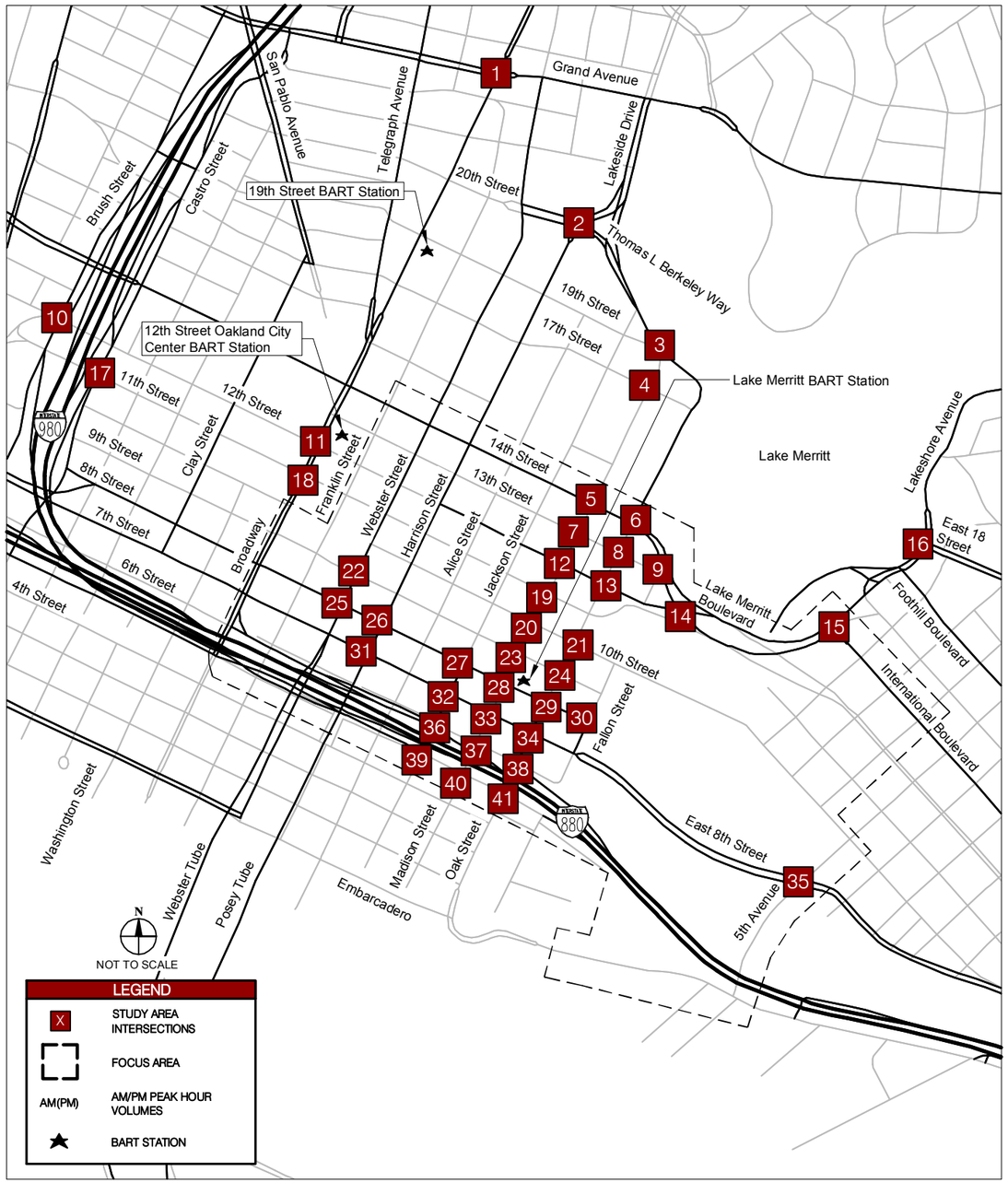
FIGURE 3.2-13
PROPOSED INCREMENTAL PROJECT VOLUMES IN INTERIM 2020 PLUS PROJECT
LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS



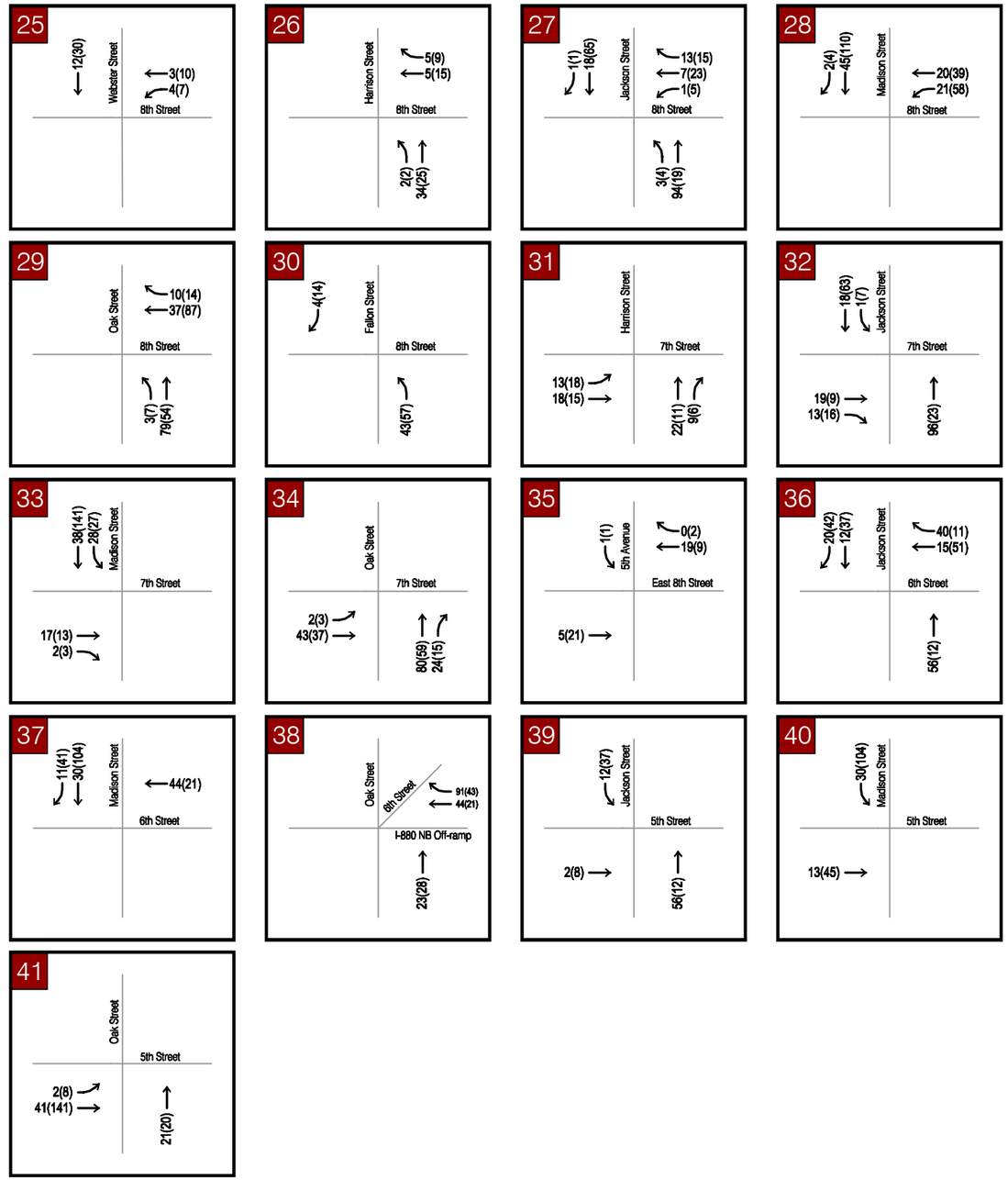


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FIGURE 3.2-13 (continued)
PROPOSED INCREMENTAL PROJECT VOLUMES IN INTERIM 2020 PLUS PROJECT
LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS

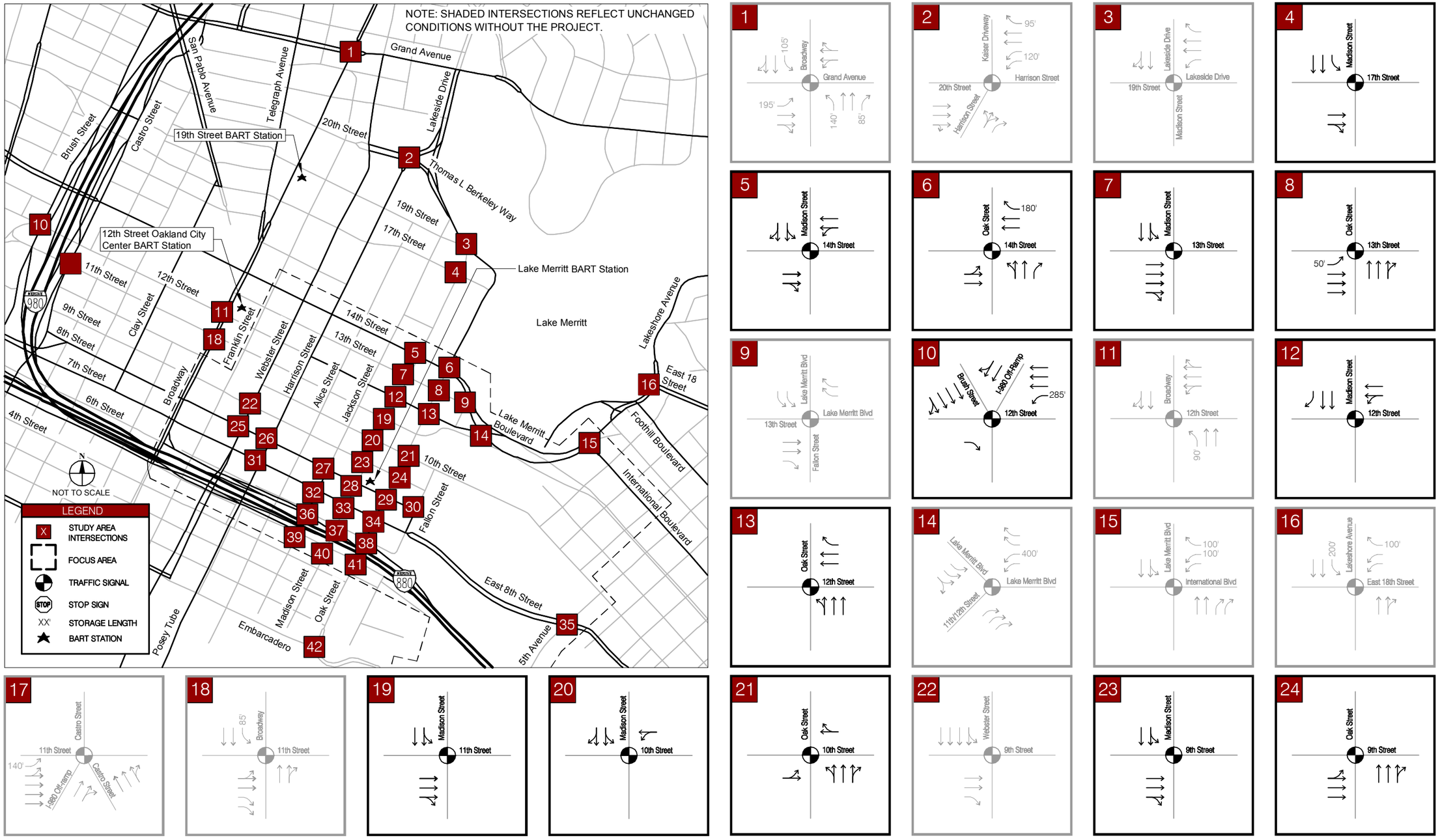

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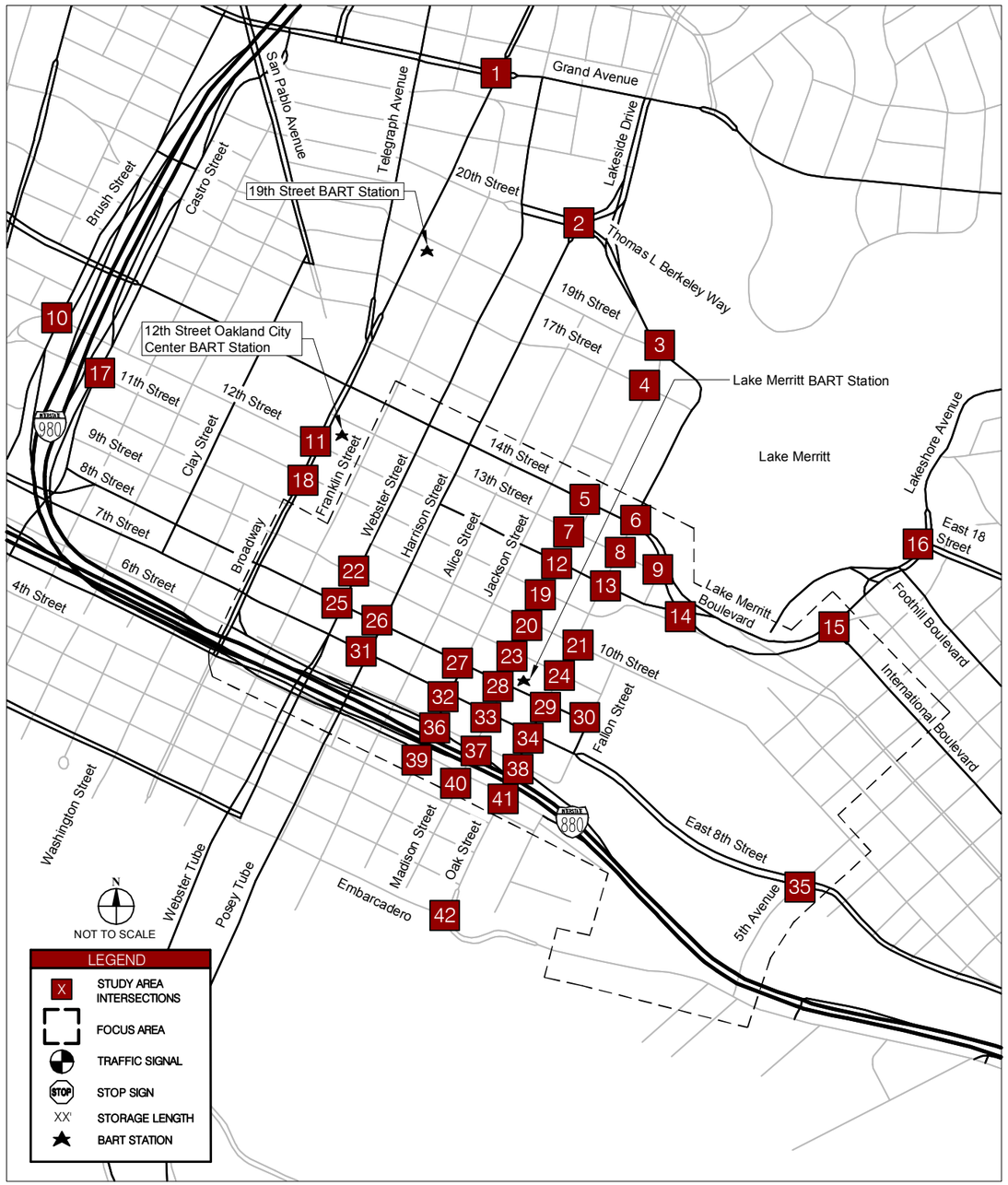
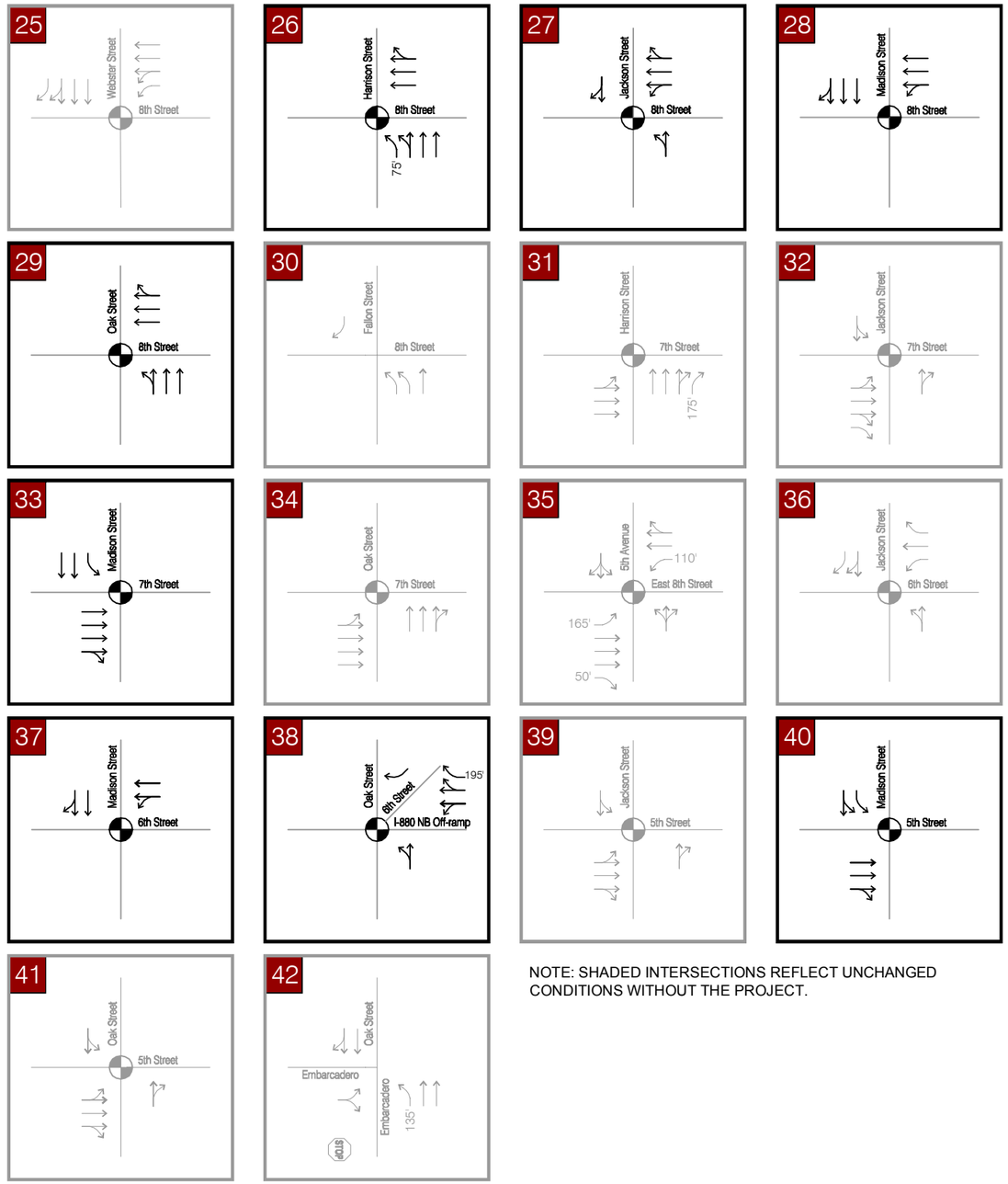
FIGURE 3.2-14
INTERIM 2020 PLUS PROJECT CONDITION - LANE GEOMETRY AND TRAFFIC CONTROL
LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS





NOTE: SHADED INTERSECTIONS REFLECT UNCHANGED CONDITIONS WITHOUT THE PROJECT.

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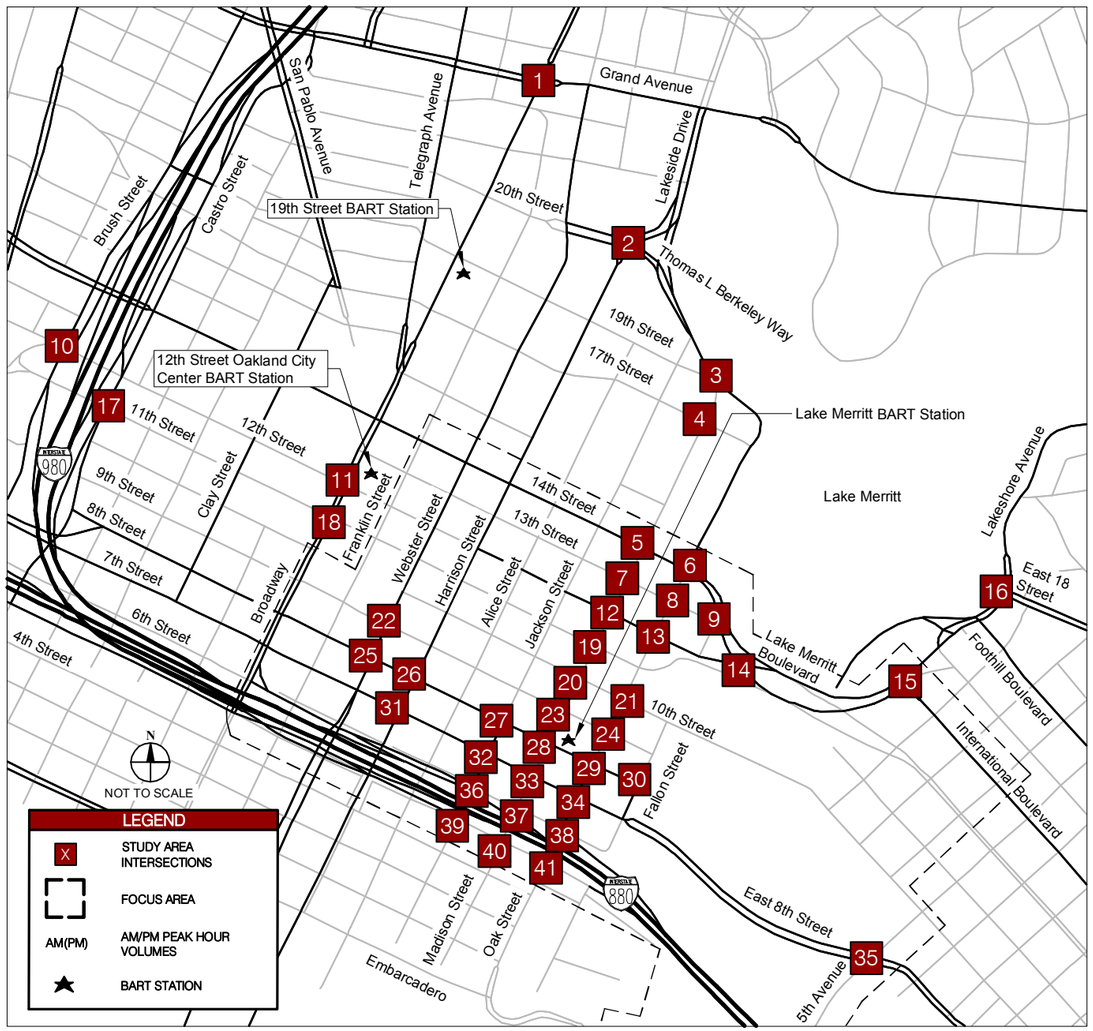
FIGURE 3.2-14 (continued)
INTERIM 2020 PLUS PROJECT CONDITION - LANE GEOMETRY AND TRAFFIC CONTROL
LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS



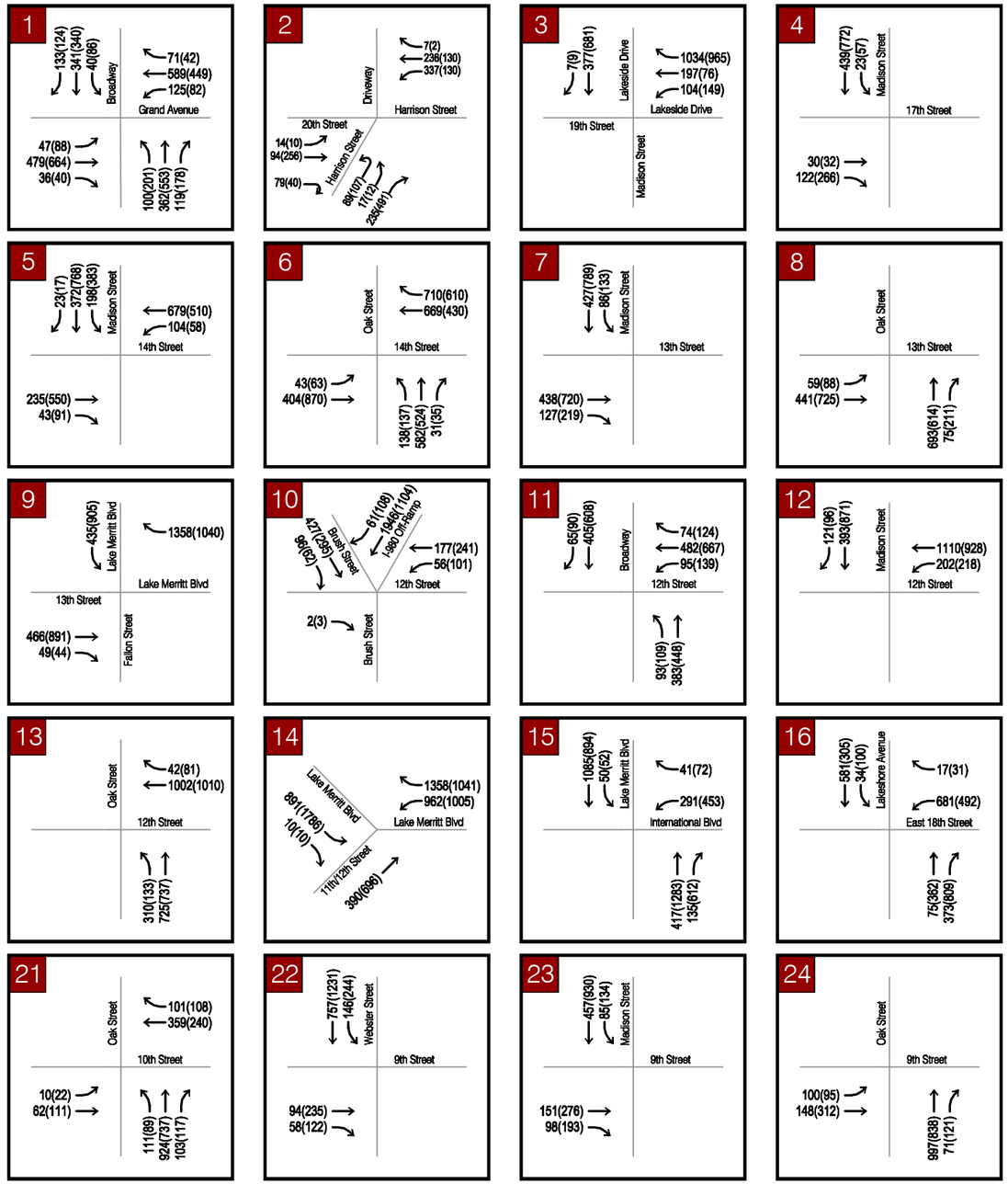


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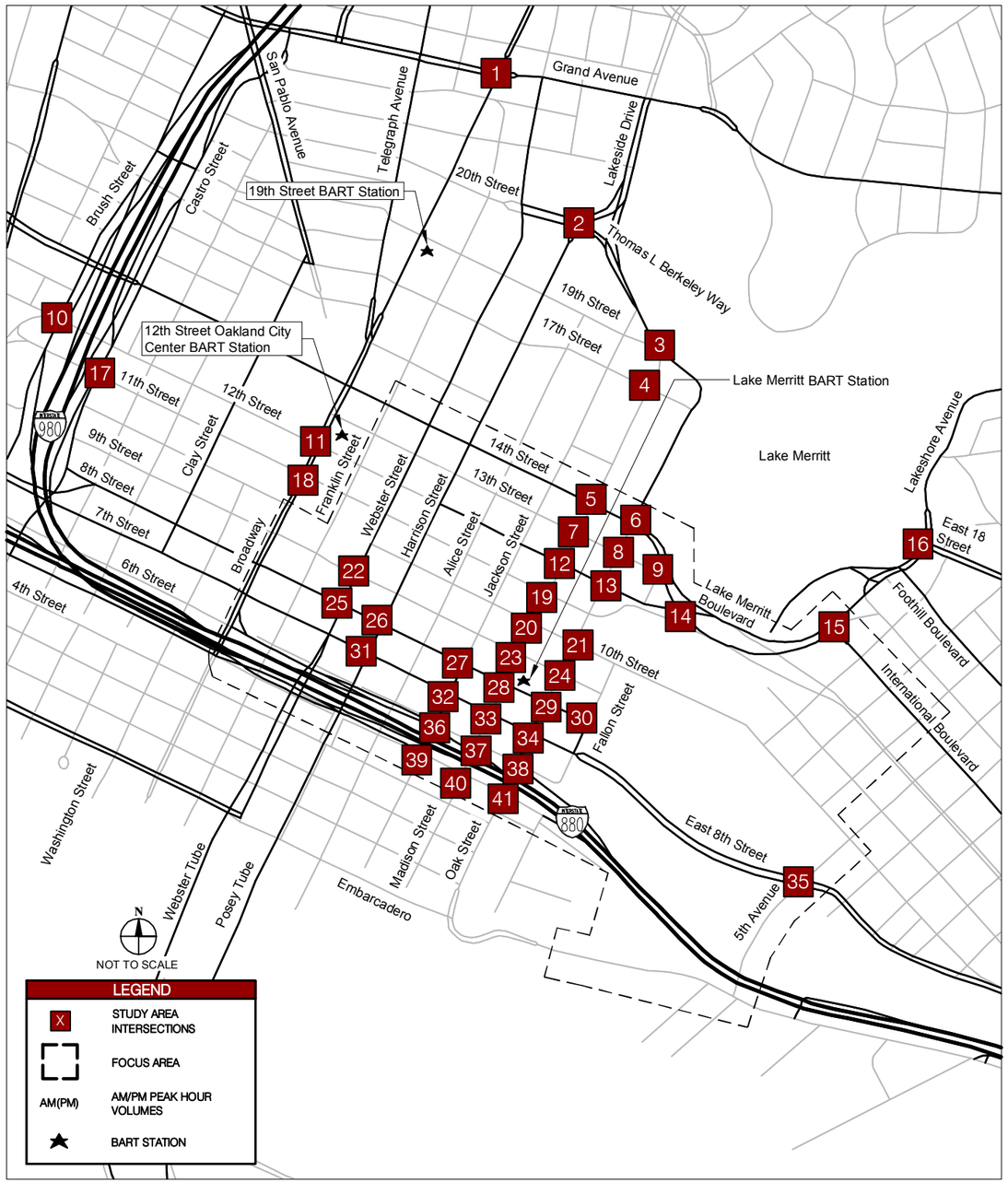
FIGURE 3.2-15
INTERIM 2020 PLUS PROJECT VOLUMES
LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS



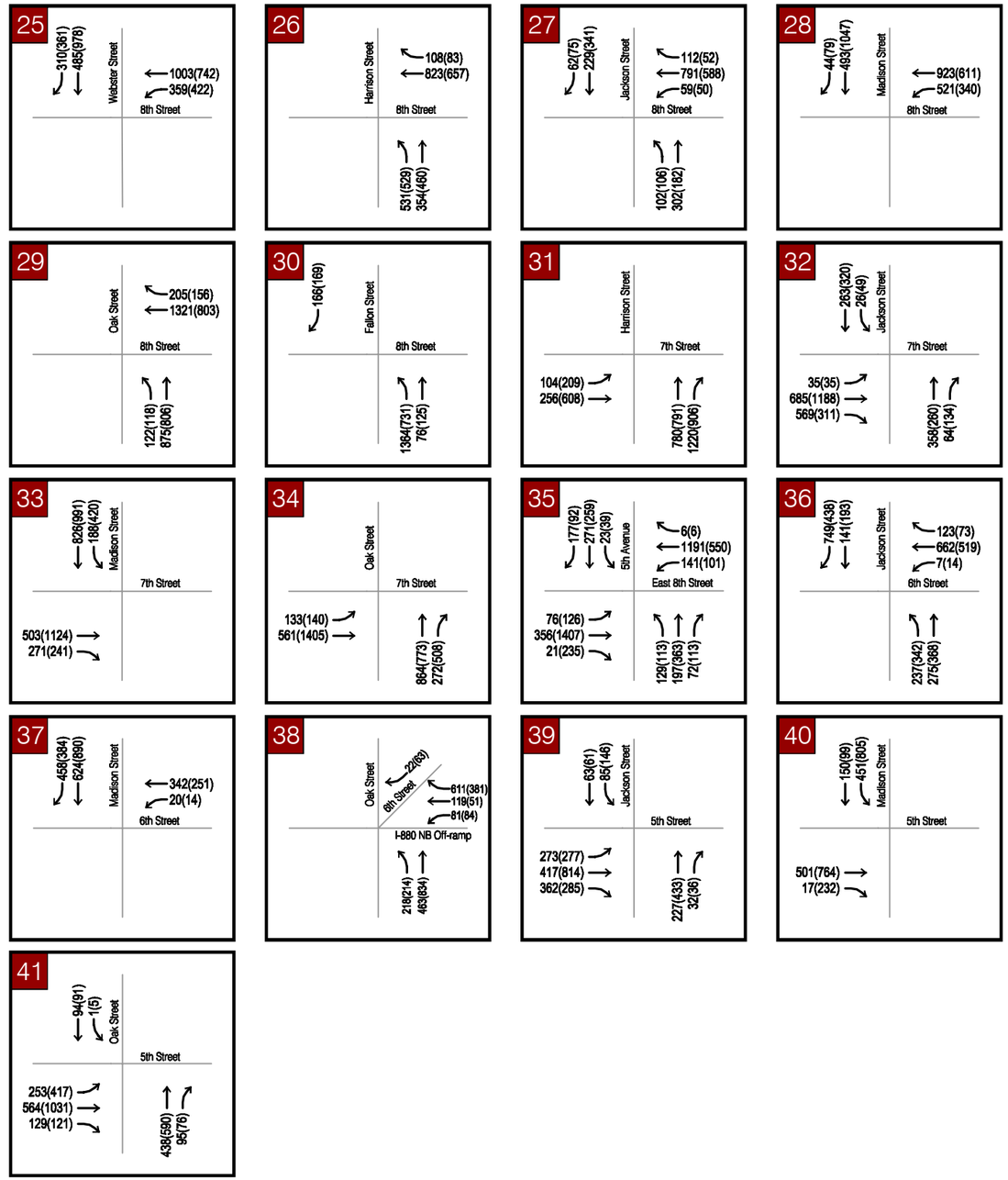


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FIGURE 3.2-15 (continued)
INTERIM 2020 PLUS PROJECT VOLUMES
LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS

Table 3.2-18: Interim 2020 Plus Project Intersection Levels of Service

No.	Intersection	Interim 2020 No Project								Interim 2020 + Project												Impact[1]
		AM Peak				PM Peak				AM Peak							PM Peak							
		LOS	Delay[2]	V/C	Critical V/C	LOS	Delay[2]	V/C[3]	Critical V/C[3]	LOS	Delay[2]	Δ Delay[2]	V/C[3]	Δ V/C[3]	Critical V/C[3]	Δ Critical V/C[3]	LOS	Delay[2]	Δ Delay[2]	V/C[3]	Δ V/C[3]	Critical V/C[3]	Δ Critical V/C[3]	
1	Grand Ave and Broadway	B	19.5			**F**	**84.4**	**1.24**	**2.01**	B	19.8	0.3					**F**	**84.2**	**-0.2**	**1.25**	**0.01**	**2.01**	**0.00**	N
2	20th St. and Harrison St	C	20.3			C	20.5			C	20.3	0.0					C	20.1	-0.4					N
3	19th St and Madison St	B	13.9			A	7.9			B	14.0	0.1					A	8.3	0.4					N
4	17th St and Madison St	A	8.4			A	9.6			A	8.7	0.3					B	10.3	0.7					N
5	Madison St. and 14th St	B	15.8			B	15.7			B	16.7	0.9					C	21.6	5.9					N
6	Oak St. and 14th St	**F**	**98.8**	**0.91**	**1.64**	**F**	**174.4**	**0.77**	**1.59**	**F**	**98.3**	**-0.5**	**0.93**	**0.02**	**1.65**	**0.01**	**F**	**179.8**	**5.4**	**0.78**	**0.01**	**1.61**	**0.02**	N
7	Madison St. and 13th St	B	11.7			B	11.8			B	12.7	1.0					B	14.9	3.1					N
8	Oak St. and 13th St	B	10.8			B	13.6			A	9.9	-0.9					C	20.7	7.1					N
9	Lake Merritt Blvd and 13th	B	15.2			B	15.1			B	15.9	0.7					B	16.2	1.1					N
10	Brush St and 12th St	E	73.0			C	25.0			**F**	**82.3**	**9.3**					C	25.4	0.4					**Y TRAN-9**
11	Broadway and 12th St	B	15.8			C	23.2			B	16.6	0.8					C	24.0	0.8					N
12	Madison St. and 12th St	B	10.7			B	11.2			B	10.3	-0.4					B	13.1	1.9					N
13	Oak St. and 12th St	B	11.1			B	11.1			B	12.6	1.5					B	12.1	1.0					N
14	Lake Merritt Blvd and 11th	B	16.0			C	25.0			B	16.5	0.5					C	26.9	1.9					N
15	1st and International Blvd	B	17.8			C	22.7			B	18.9	1.1					C	26.2	3.5					N
16	Lakeshore Ave & 18th St	B	14.3			B	17.8			B	14.4	0.1					B	18.0	0.2					N
17	Castro St and 11th St	C	30.6			C	24.6			C	30.4	-0.2					C	24.6	0.0					N
18	Broadway and 11th St	B	16.3			B	18.4			B	16.6	0.3					B	18.7	0.3					N
19	Madison St. and 11th St	B	10.4			B	14.0			B	11.4	1.0					C	27.3	13.3					N
20	Madison St. and 10th St	A	8.7			B	19.1			B	10.1	1.4					C	24.4	5.3					N
21	Oak St. and 10th St	A	9.4			A	8.5			E	79.8	70.4					C	23.5	15.0					N
22	Webster St. and 9th St	C	26.4			C	33.5			C	26.6	0.2					C	34.7	1.2					N
23	Madison St. and 9th St	A	7.4			A	7.2			A	8.3	0.9					A	8.4	1.2					N
24	Oak St. and 9th St	A	5.1			A	9.1			A	5.2	0.1					A	8.3	-0.8					N
25	Webster St. and 8th St	D	37.9			C	26.1			D	38.1	0.2					C	26.1	0.0					N
26	Harrison St. and 8th St	B	11.9			B	10.9			B	17.8	5.9					B	11.5	0.6					N
27	Jackson St. and 8th St	B	17.1			B	12.2			C	24.1	7.0					B	15.0	2.8					N
28	Madison St. and 8th St	B	10.2			B	11.5			B	12.4	2.2					B	10.9	-0.6					N
29	Oak St. and 8th St	B	15.0			B	14.9			D	47.4	32.4					B	17.8	2.9					N
30	Fallon St. and 8th St	A	0.0			A	0.0			A	0.0	0.0					A	0.0	0.0					N
31	Harrison St. and 7th St	A	7.2			A	9.0			A	7.4	0.2					A	9.1	0.1					N
32	Jackson St. and 7th St	B	19.8			B	13.8			C	23.3	3.5					B	15.1	1.3					N

Table 3.2-18: Interim 2020 Plus Project Intersection Levels of Service

No.	Intersection	Interim 2020 No Project								Interim 2020 + Project												Impact[1]
		AM Peak				PM Peak				AM Peak							PM Peak						
		LOS	Delay[2]	V/C	Critical V/C	LOS	Delay[2]	V/C[3]	Critical V/C[3]	LOS	Delay[2]	Δ Delay[2]	V/C[3]	Δ V/C[3]	Critical V/C[3]	Δ Critical V/C[3]	LOS	Delay[2]	Δ Delay[2]	V/C[3]	Δ V/C[3]	Critical V/C[3]	Δ Critical V/C[3]	
33	Madison St. and 7th St	B	16.1			C	21.5			B	13.8	-2.3					C	22.7	1.2					N
34	Oak St. and 7th St	B	12.3			C	24.6			B	12.2	-0.1					C	28.8	4.2					N
35	5th Ave. and 7th St/8th St	C	28.9			C	33.0			C	29.2	0.3					C	33.3	0.3					N
36	Jackson St. and 6th St	**F**	**105.2**	**1.02**	**1.61**	E	58.0			**F**	**107.8**	**2.6**	**1.06**	**0.04**	**1.65**	**0.04**	**F**	**80.5**	**22.5**					**Y TRAN-10**
37	Madison St. and 6th St	A	8.5			A	7.3			B	12.6	4.1					A	9.7	2.4					N
38	Oak St. and 6th St	B	13.2			D	39.9			**F**	**110.0**	**96.8**					**F**	**385.6**	**345.7**					**Y TRAN-11**
39	Jackson St. and 5th St	B	17.1			C	31.4			B	16.9	-0.2					E	67.1	35.7					N
40	Madison St. and 5th St	A	8.9			B	16.6			B	11.3	2.4					B	19.5	2.9					N
41	Oak St. and 5th St	D	41.6			**F**	**89.9**	**1.04**	**1.53**	D	47.9	6.3					**F**	**93.6**	**3.7**	**1.10**	**0.6**	**1.58**	**0.05**	**Y TRAN-12**
42	NA (Segment analysis below)																							
	City of Alameda Intersections																							
43	Constitution & Marina Village	B	14.0			B	14.5			B	14.1	0.1					B	14.5	0.0					N
44	Constitution Wy & Atlantic Av	B	14.2			B	13.8			B	14.2	0.0					B	13.9	0.1					N
45	Webster St & Atlantic Av	C	32.9			C	26.3			C	33.6	0.7					C	26.6	0.3					N

Notes:

Locations operating at unacceptable levels are shown in **BOLD**, and impacted intersections are highlighted.

[1] This column identifies intersections that have been impacted based on the City of Oakland's CEQA significance thresholds (or the City of Alameda's Level of Service criteria) and, if there is a significant impact, the impact number (TRAN-XX) is shown in this column.

[2] Delay is presented in seconds per vehicle. ΔDelay represents the change in delay (seconds per vehicle) between the with and without Project scenarios. Calculation of delay in over-capacity conditions (i.e. LOS F) is not reliable. Therefore, delay in excess of 80 seconds is only reported to allow a relative comparison of conditions without and with project traffic and should not be interpreted as an exact representation of actual delay.[3] V/C = the ratio of the volume of traffic passing through an intersection to the capacity of the intersection's lane groups. The V/C ratio is the average V/C ratio for the entire intersection, and is an indicator of the utilization of intersection's overall capacity. The critical V/C ratio is the highest ratio of all of the intersection's approaches and lane groups. The critical V/C will control the amount of a traffic signal's green time that can be shared between all of the approaches. Δ V/C and Δ Critical V/C represent the change in V/C ratio between the with and without Project scenarios.

Source: Kimley-Horn and Associates, Inc. (2013).

Table 3.2-19: Interim 2020 Plus Project Roadway Segment Levels of Service

Street Segment	Interim 2020 No Project						Interim 2020 + Project								Impact
	AM Peak			PM Peak			AM Peak				PM Peak				
	Vol	LOS	V/C Ratio	Vol	LOS	V/C Ratio	Vol	LOS	V/C Ratio	Δ V/C	Vol	LOS	V/C Ratio	Δ V/C	
2nd Street to Embarcadero (4-Lanes / Divided)	636	C	0.32	854	D	0.42	657	C	0.33	0.01	874	D	0.43	0.01	N
2nd Street to Embarcadero (2-Lanes / Divided)							657	D	0.67	0.35	874	E	0.89	0.47	N

Notes: All roadway segments have an established performance threshold of LOS E.

Source: Kimley-Horn and Associates, Inc. (2013)

Table 3.2-20: Interim 2020 Plus Project Freeway Segment Levels of Service

Freeway Segment	*LOS Threshold*	*Interim 2020 No Project*				*Interim 2020 + Project*						*Impact*[1]
		AM Peak		*PM Peak*		*AM Peak*			*PM Peak*			
		LOS	*V/C*	*LOS*	*V/C*	*LOS*	*V/C*	*Δ V/C*	*LOS*	*V/C*	*Δ V/C*	
I-880 - 5th Avenue to Oak Street												n/a
Northbound	E	**F**	**1.10**	**F**	**1.03**	**F**	**1.11**	**0.01**	**F**	**1.04**	**0.01**	N
Southbound	E	E	0.94	**F**	**1.06**	E	0.95	0.01	**F**	**1.07**	**0.01**	N
I-880 - Oak Street to Jackson Street												
Northbound	E	**F**	**1.02**	E	0.98	**F**	**1.02**	**0.00**	E	0.98	0.00	N
Southbound	E	E	0.92	**F**	**1.01**	E	0.92	0.00	E	1.00	0.00	N
I-880 - Jackson Street to I-980												
Northbound	E	E	0.91	D	0.89	E	0.91	0.00	D	0.90	0.01	N
Southbound	E	C	0.68	C	0.71	C	0.68	0.00	C	0.71	0.00	N
I-980 - I-880 to 14th Street												
Eastbound	E	E	0.91	D	0.89	E	0.91	0.00	D	0.90	0.01	N
Westbound	E	C	0.68	C	0.71	C	0.68	0.00	C	0.71	0.00	N
I-980 - 14th Street to 18th Street												
Eastbound	E	C	0.66	D	0.76	C	0.66	0.00	D	0.76	0.00	N
Westbound	E	B	0.45	A	0.33	B	0.45	0.00	A	0.34	0.00	N

Notes:
Locations operating at unacceptable levels are shown in **BOLD**. Freeway segments were analyzed using HCM methodology, which measures volume to capacity (V/C) to determine LOS.

[1] This column identifies segments that have been impacted based on the applicable CEQA significance thresholds, and, if there a significant impact, the impact Number (TRAN-XX) is shown in the column.

Source: Kimley-Horn and Associates, Inc. (2013)

Interim 2020 Plus Project AC Transit Bus Travel Times

As noted earlier, in the discussion of transit travel time in Existing Plus Project Conditions, the City of Oakland has no basis to establish a numerical threshold for "substantially increased travel times". Furthermore, previously mentioned factors, make estimating AC Transit travel times with reasonable certainty throughout the life of the project, or establishing numerical thresholds for AC Transit travel times, difficult and impractical. However, to the extent feasible, this section provides an analysis of how the Project would affect transit travel times.

Traffic operations were evaluated on 7th Street, 8th Street, Oak Street, and Madison Street to assess the effect of the Project on AC Transit bus travel times on these corridors. Estimated travel times in the Interim 2020 Plus Project conditions are presented in **Table 3.2-21**. In general, there is an increase in travel times, although the segment of 7th Street between Harrison and Oak Street experiences a reduction. The greatest increase in estimated travel time was 86 seconds on the segment of 8th Street between Fallon and Webster Streets.

Although not reflected in the quantitative travel time analysis in **Table 3.2-21**, various transit access improvement policies that are part of the Lake Merritt Station Area Plan, including policies C-33 and C-46 that call for transit signal priority, bus bulbs, and improved management of curb space— will contribute to offsetting any increase in travel time due to the Project. Therefore, this impact is considered less than significant and no mitigation is required.

Table 3.2-21: Interim 2020 Plus Project AC Transit Bus Travel Times

Arterial	*Limits*	*Dir*	*Interim 2020 No Project*		*Interim 2020 + Project*			
			AM	*PM*	*AM*		*PM*	
			Travel Time (sec)		*Travel Time (sec)*	*Δ Travel Time (sec)*	*Travel Time (sec)*	*Δ Travel Time (sec)*
7th	Harrison to Oak	EB	100	125	103	-3	135	0
8th	Fallon to Webster	WB	244	207	330	86	216	9
Madison	11th to 7th	SB	85	102	87	2	104	2
Oak	7th to 12th	NB	97	104	103	6	108	4

Source: Kimley-Horn and Associates, Inc. (2013)

Interim 2020 Plus Project CMP and MTS Highway Segments

Table 3.2-22 presents the results of the PM peak hour analysis of CMP facilities under Interim 2020 Plus Project conditions complying with the County's CMP requirements. The PM peak hour volumes, V/C ratios and the Level of Service for Interim 2020 No Project and Plus Project conditions represent both directions of flow. **Table 3.2-22** compares the results for both scenarios. All of the CMP facilities will operate within Level of Service standards, therefore there are no significant impacts.

Cumulative 2035 No Project Lane Configurations and Traffic Control

Planned transportation improvements anticipated to be implemented prior to the year 2035 include the improvements identified for the Interim 2020 scenario (local City of Oakland, AC Transit, and Tier 1 Regional projects throughout the Bay Area). There are no additional local or regionally funded transportation improvements in the Cumulative 2035 scenario. In addition to agency-approved changes in geometry and traffic control, the Cumulative 2035 No Project scenario assumes that signal timing parameters that do not require upgrades to the signal equipment, such as amount of green time assigned to each intersection approach, would be optimized at the signalized study intersections. This assumption reflects current City of Oakland practice that incorporates basic signal timing changes into routine maintenance of the traffic signal system. It is expected that retiming of signals in areas with the greatest need (e.g., major streets, areas with rapidly shifting traffic patterns) would be prioritized as part of the regular ongoing maintenance of signal equipment.

Figure 3.2-16 illustrates the intersection geometry and traffic control in the Cumulative 2035 No Project analysis.

Table 3.2-22: Interim 2020 Plus Project CMP Segment Evaluation

Segment	***Interim 2020 No Project*** *Northbound / Eastbound*					***Interim 2020 Plus Project*** *Northbound / Eastbound*					*Impact*
	Volume	*Capacity*	*V/C*	*Lanes*	*LOS*	*Volume*	*Capacity*	*V/C*	*Lanes*	*LOS*	
Interstate/State Highways											
I-880 - south of Oak Street	7,561	8,400	0.90	4	E	7,549	8,400	0.90	4	D	N
I-880 - north of Castro Street	4,468	6,300	0.71	3	C	4,495	6,300	0.71	3	C	N
Arterials											
14th Street - north of Franklin Street	111	1,800	0.06	2	B	109	1,800	0.06	2	B	N
Harrison Street - south of 14th Street	539	1,800	0.30	2	C	538	1,800	0.30	2	C	N
Webster Street -south of 14th Street	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-
Broadway - south of 14th Street	111	1,800	0.06	2	B	106	1,800	0.06	2	B	N
7th Street - West of Jackson Street	2,113	3,320	0.64	4	D	2,164	3,320	0.65	4	D	N
8th Street - East of Webster Street	1,776	3,320	0.53	4	C	1,865	3,320	0.56	4	C	N
Segment	***Interim 2020 No Project*** *Southbound / Westbound*					***Interim 2020 Plus Project*** *Southbound / Westbound*					
	Volume	*Capacity*	*V/C*	*Lanes*	*LOS*	*Volume*	*Capacity*	*V/C*	*Lanes*	*LOS*	
Interstate/State Highways											
I-880 - south of Oak Street	7,947	10,500	0.76	5	D	8,018	10,500	0.76	5	D	N
I-880 - north of Castro Street	4,074	6,300	0.65	3	C	4,122	6,300	0.65	3	C	N
Arterials											
14th Street - north of Franklin Street	45	1,800	0.03	2	B	111	1,800	0.03	2	B	N
Harrison Street - south of 14th Street	416	1,800	0.23	2	C	539	1,800	0.21	2	C	N
Webster Street -south of 14th Street	1,000	2,710	0.37	3	C	n/a	2,710	0.36	3	C	N
Broadway - south of 14th Street	84	1,800	0.05	2	B	111	1,800	0.05	2	B	N
7th Street - West of Jackson Street	n/a	n/a	n/a	n/a	n/a	2,113	n/a	n/a	n/a	n/a	-
8th Street - East of Webster Street	n/a	n/a	n/a	n/a	n/a	1,776	n/a	n/a	n/a	n/a	-

Source: Alameda CTC P09 Countywide Model, Kittelson & Associates, Inc. 2012

Cumulative 2035 No Project Intersection Levels of Service

Evaluation of the study intersections under Cumulative 2035 No Project conditions are based on the projected traffic volumes shown in **Figure 3.2-17**, and result in levels of service shown in **Table 3.2-23**.

Table 3.2-23: Cumulative 2035 No Project Intersection Levels of Service

No.	*Intersection*	*Intersection Jurisdiction*	*LOS Threshold*	*Cumulative 2035 No Project*			
				AM Peak		*PM Peak*	
				LOS	*Delay[1]*	*LOS*	*Delay[1]*
1	Grand Ave and Broadway	Oakland	E	E	68.8	**F**	**346.0**
2	20th St. and Harrison St	Oakland	E	C	21.6	C	21.9
3	19th St and Madison St	Oakland	E	C	29.9	D	36.5
4	17th St and Madison St	Oakland	E	B	10.5	A	9.1
5	Madison St. and 14th St	Oakland	E	**F**	**121.3**	**F**	**148.6**
6	Oak St. and 14th St	Oakland	E	**F**	**175.1**	**F**	**276.7**
7	Madison St. and 13th St	Oakland	E	B	16.9	B	16.3
8	Oak St. and 13th St	Oakland	E	B	10.5	C	21.8
9	Lake Merritt Blvd and 13th St	Oakland	E	C	23.8	B	14.5
10	Brush St and 12th St	Oakland	E	**F**	**125.8**	E	57.0
11	Broadway and 12th St	Oakland	E	C	23.5	D	46.7
12	Madison St. and 12th St	Oakland	E	A	8.8	D	50.7
13	Oak St. and 12th St	Oakland	E	B	12.2	B	15.3
14	Lake Merritt Blvd and 11th St	Oakland	E	E	55.7	E	70.2
15	1st Ave. and International Blvd	Oakland	E	C	25.7	D	44.8
16	Lakeshore Ave and 18th St	Oakland	E	B	17.0	B	17.8
17	Castro St and 11th St	Oakland	E	**F**	**207.2**	**F**	**131.4**
18	Broadway and 11th St	Oakland	E	C	27.2	C	23.9
19	Madison St. and 11th St	Oakland	E	B	13.3	C	30.7
20	Madison St. and 10th St	Oakland	E	B	18.2	B	19.0
21	Oak St. and 10th St	Oakland	E	D	54.2	B	12.2
22	Webster St. and 9th St	Oakland	E	C	31.8	**F**	**110.6**
23	Madison St. and 9th St	Oakland	E	A	9.6	A	8.9
24	Oak St. and 9th St	Oakland	E	A	5.7	A	7.8
25	Webster St. and 8th St	Oakland	E	**F**	**240.6**	**F**	**201.1**
26	Harrison St. and 8th St	Oakland	E	**F**	**81.1**	B	17.6
27	Jackson St. and 8th St	Oakland	E	**F**	**99.2**	**F**	**86.2**
28	Madison St. and 8th St	Oakland	E	D	48.7	D	38.0
29	Oak St. and 8th St	Oakland	E	**F**	**102.0**	D	41.8
30	Fallon St. and 8th St	Oakland	E	A	0.0	A	0.0
31	Harrison St. and 7th St	Oakland	E	B	13.7	B	13.2

Table 3.2-23: Cumulative 2035 No Project Intersection Levels of Service

No.	*Intersection*	*Intersection Jurisdiction*	*LOS Threshold*	*Cumulative 2035 No Project*			
				AM Peak		*PM Peak*	
				LOS	*Delay[1]*	*LOS*	*Delay[1]*
32	Jackson St. and 7th St	Oakland	E	C	21.0	**F**	**263.5**
33	Madison St. and 7th St	Oakland	E	C	24.6	**F**	**149.8**
34	Oak St. and 7th St	Oakland	E	B	16.1	D	52.8
35	5th Ave. and 7th St/8th St	Oakland	E	**F**	**135.6**	**F**	**197.9**
36	Jackson St. and 6th St	Oakland	E	**F**	**381.7**	**F**	**155.8**
37	Madison St. and 6th St	Oakland	E	A	8.9	B	17.4
38	Oak St. and 6th St	Oakland	E	D	51.8	E	66.8
39	Jackson St. and 5th St	Oakland	E	D	43.2	**F**	**136.4**
40	Madison St. and 5th St	Oakland	E	B	12.3	D	51.9
41	Oak St. and 5th St	Oakland	E	**F**	**123.3**	**F**	**104.0**
42	NA (Segment analysis below)						
City of Alameda Intersections							
43	Constitution & Marina Village Pkwy	Alameda	D	D	45.2	E	59.8
44	Constitution Wy & Atlantic Av	Alameda	D	B	14.6	D	45.3
45	Webster St & Atlantic Av	Alameda	D	D	38.7	C	29.3

Note: Locations operating at unacceptable levels are shown in **BOLD**.

[1] Calculation of delay in over-capacity conditions (i.e. LOS F) is not reliable. Therefore, delay in excess of 80 seconds is only reported to allow a relative comparison of conditions without and with project traffic and should not be interpreted as an exact representation of actual delay.

Source: Kimley-Horn and Associates, Inc.

Cumulative 2035 No Project Roadway Segment Level of Service

An evaluation of Oak Street between 2nd Street and Embarcadero under Cumulative 2035 No Project conditions is shown in **Table 3.2-24**. The results of the analysis shown in **Table 3.2-24** indicate this four-lane divided roadway segment meets the City of Oakland's standard under Cumulative 2035 No Project conditions.

Table 3.2-24: Cumulative 2035 No Project Roadway Segment Levels of Service Summary

Street Segment- Oak Street	*Criteria*	*Cumulative 2035 No Project*					
		AM Peak			*PM Peak*		
		Volume	*LOS*	*V/C Ratio*	*Volume*	*LOS*	*V/C Ratio*
2nd Street to Embarcadero (4 Lanes / Divided)	E	879	D	0.44	1,020	D	0.51

Source: Kimley-Horn and Associates, Inc. (2013)

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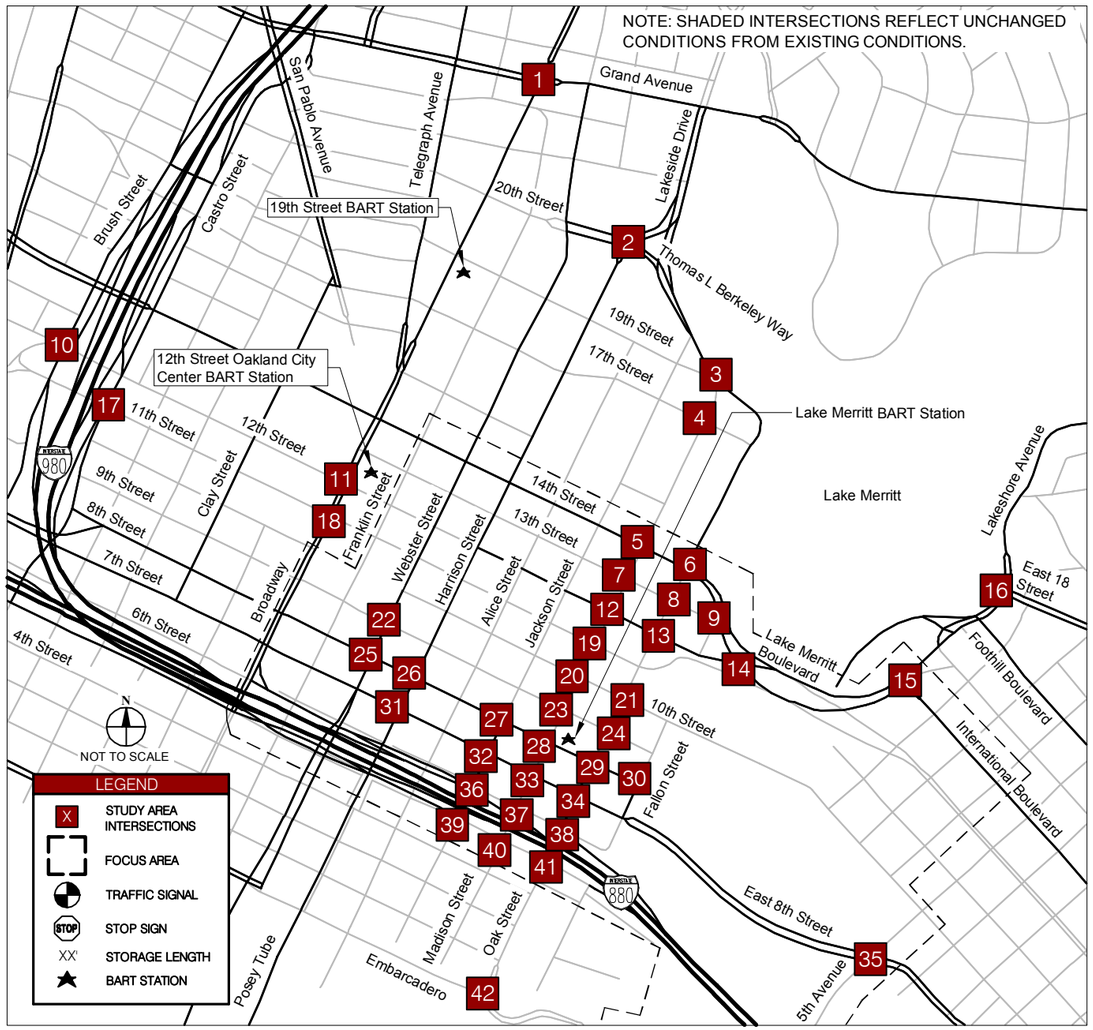

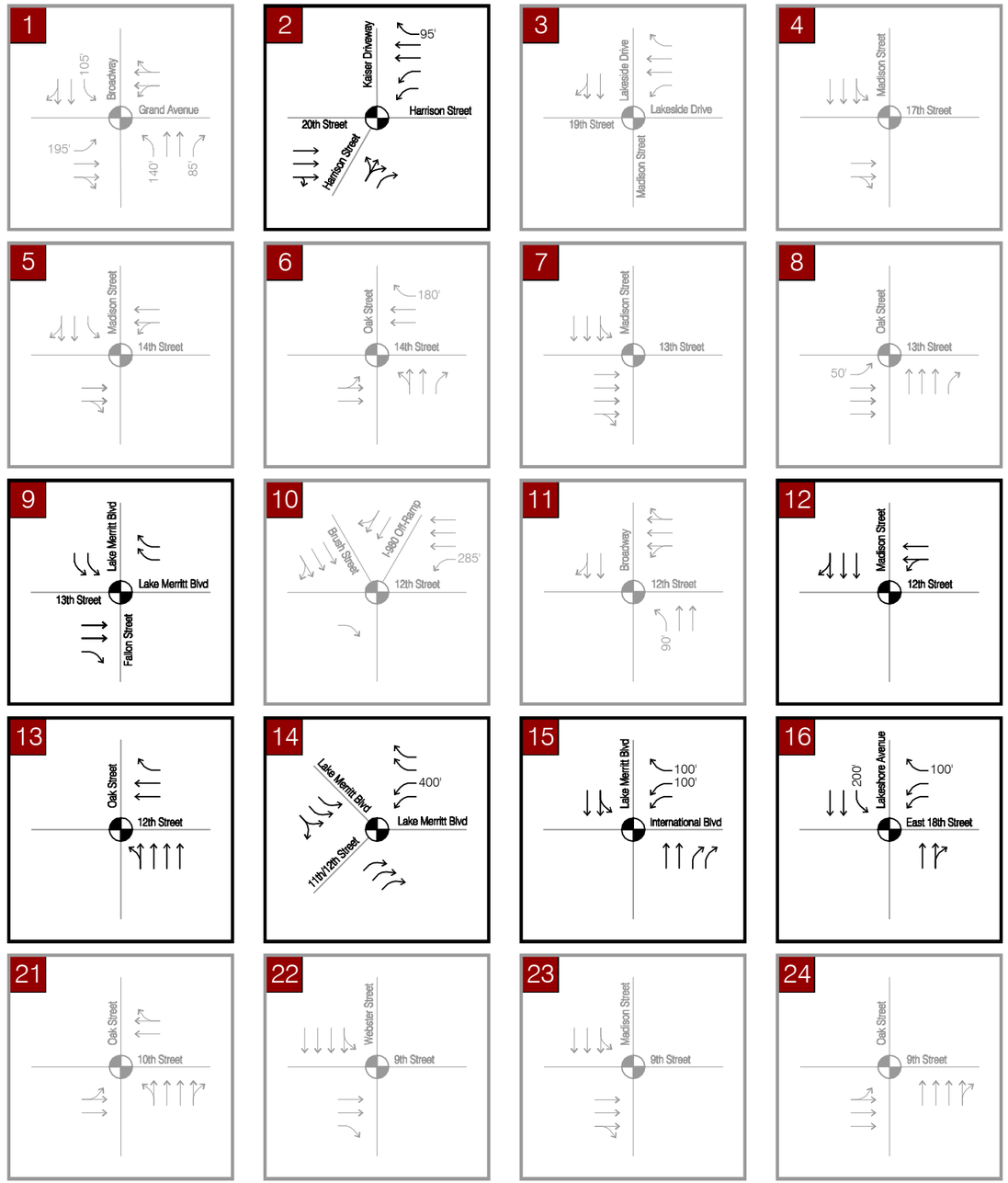

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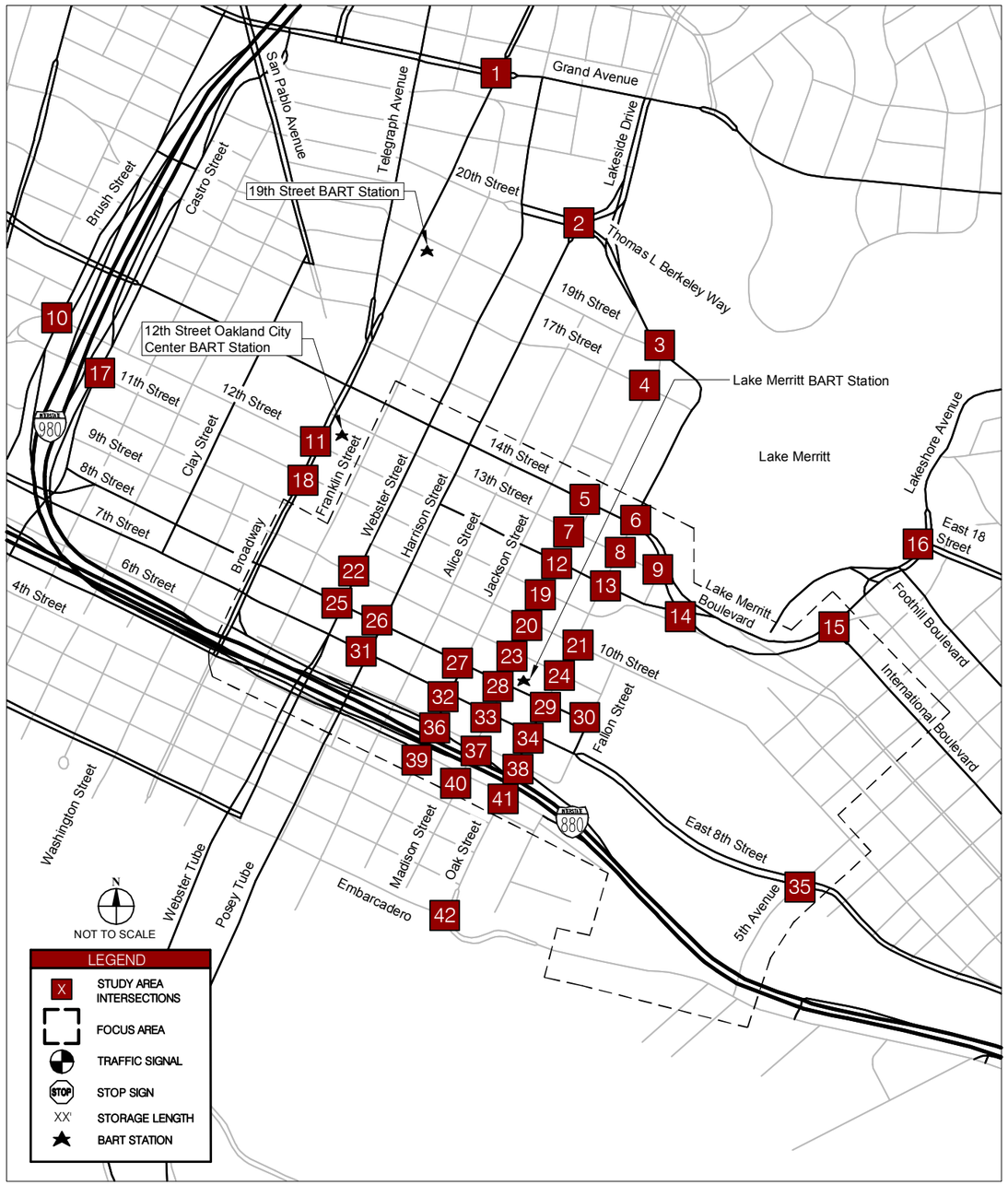
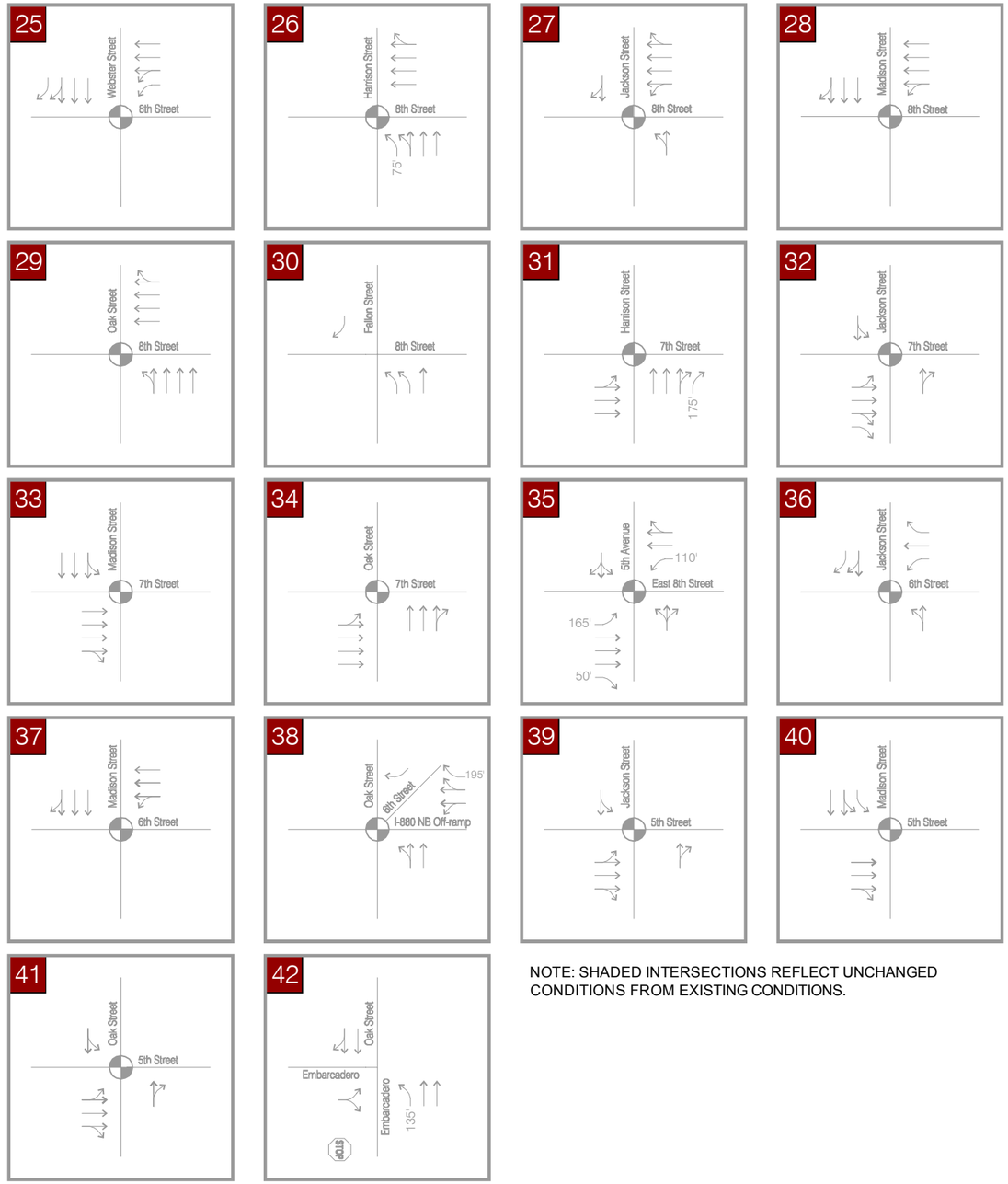
FIGURE 3.2-16
CUMULATIVE 2035 NO PROJECT CONDITION - LANE GEOMETRY AND TRAFFIC CONTROL
LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS





NOTE: SHADED INTERSECTIONS REFLECT UNCHANGED CONDITIONS FROM EXISTING CONDITIONS.

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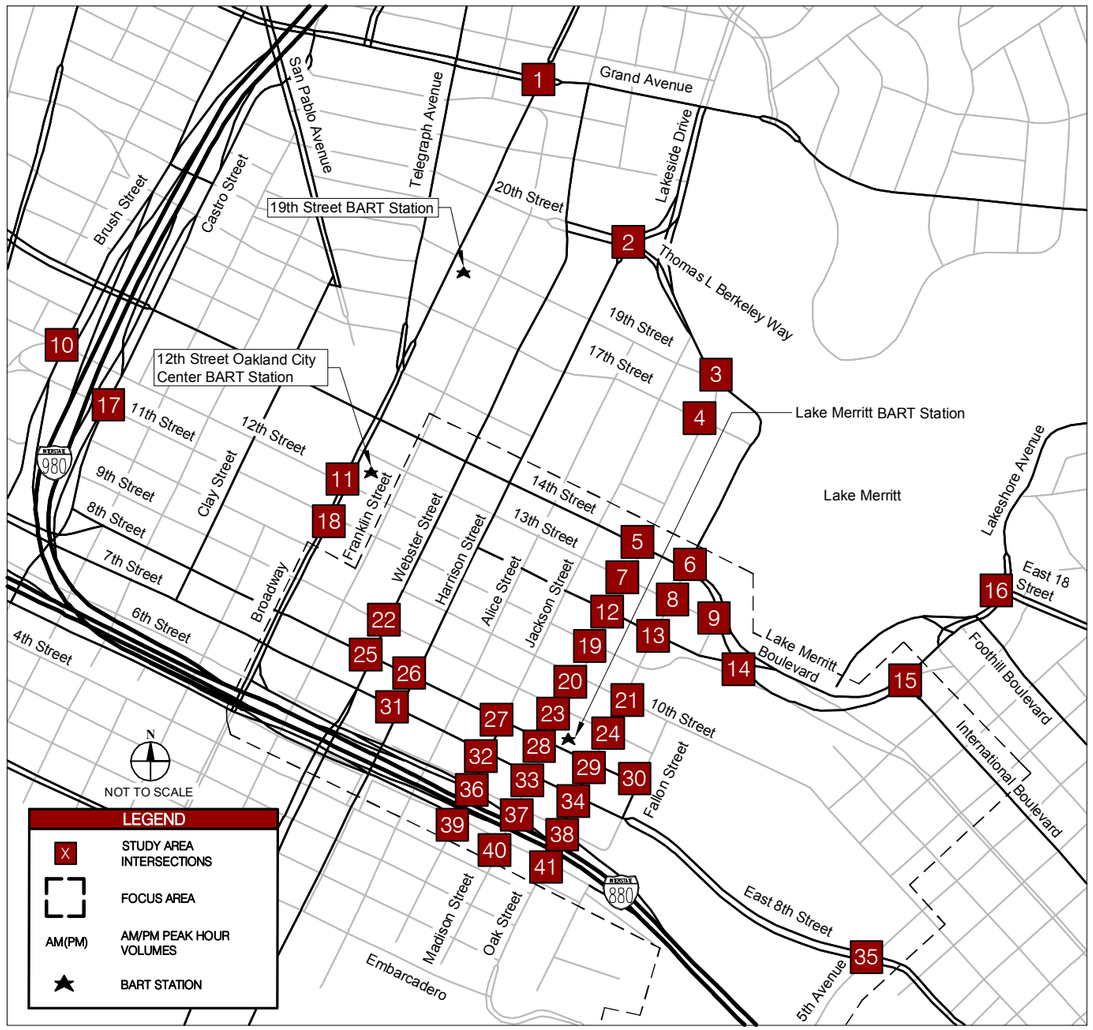
FIGURE 3.2-16 (continued)

CUMULATIVE 2035 NO PROJECT CONDITION - LANE GEOMETRY AND TRAFFIC CONTROL

LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS



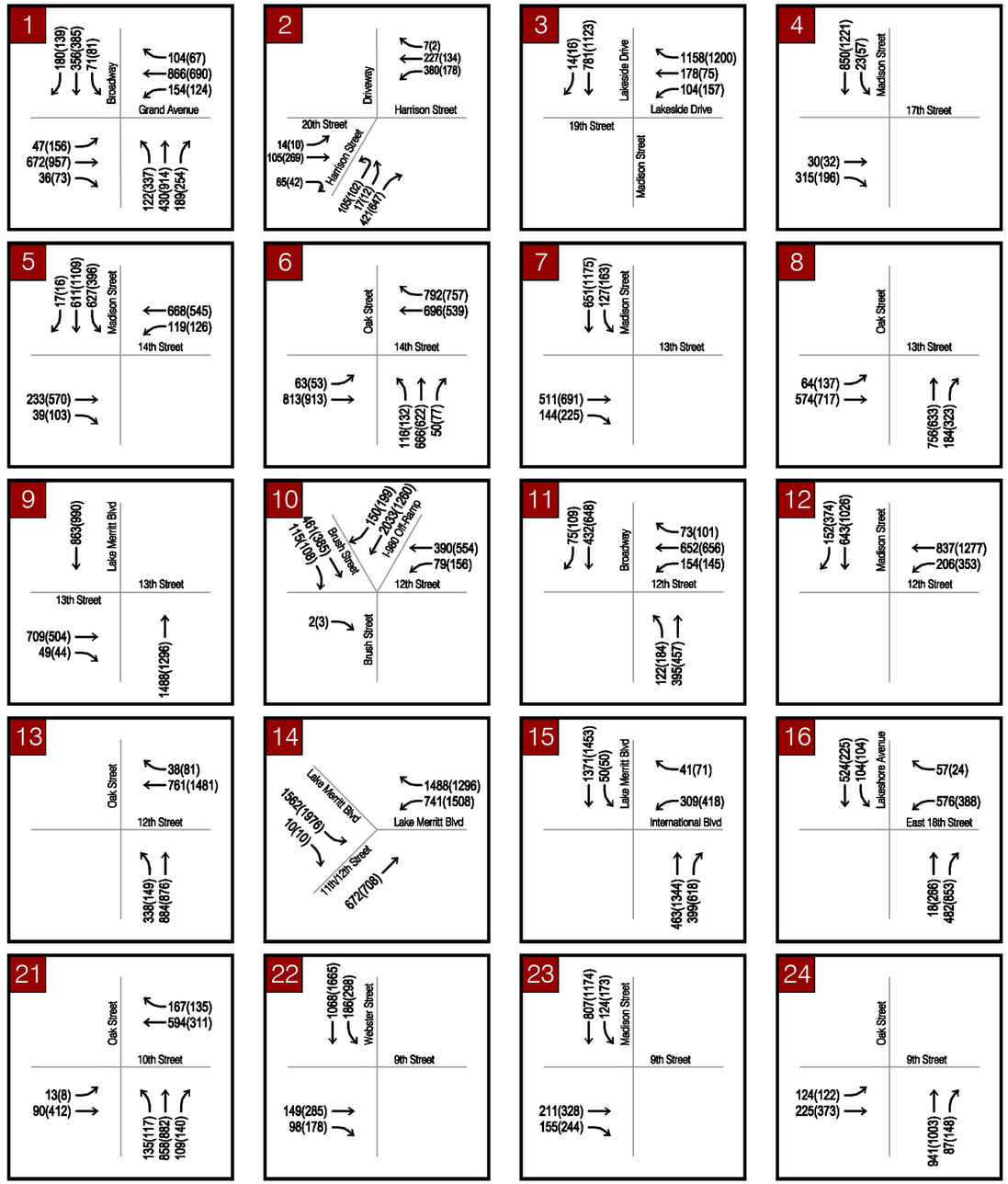


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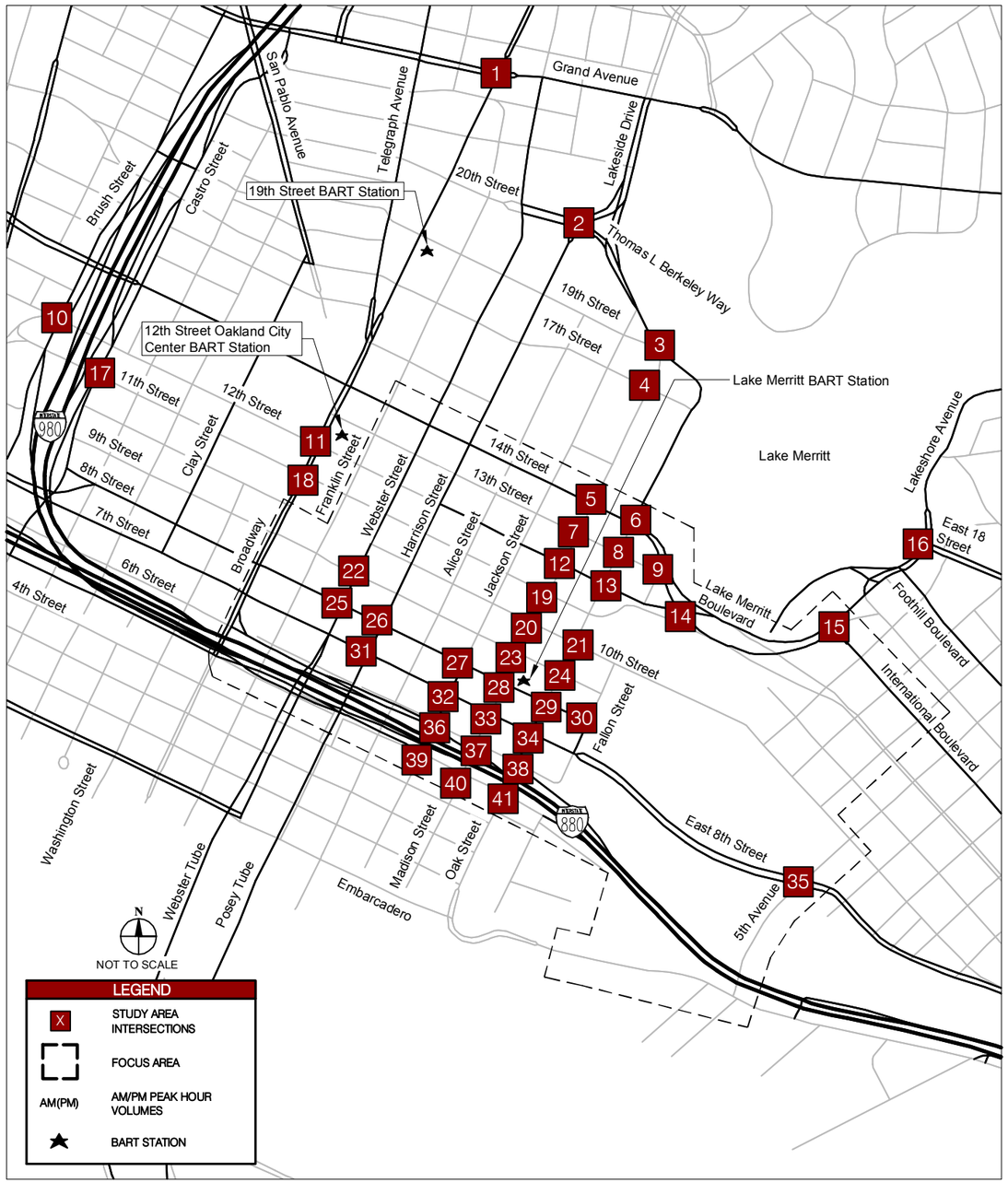
FIGURE 3.2-17

CUMULATIVE 2035 NO PROJECT CONDITION - AM/PM PEAK HOUR TURNING MOVEMENT VOLUMES

LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS



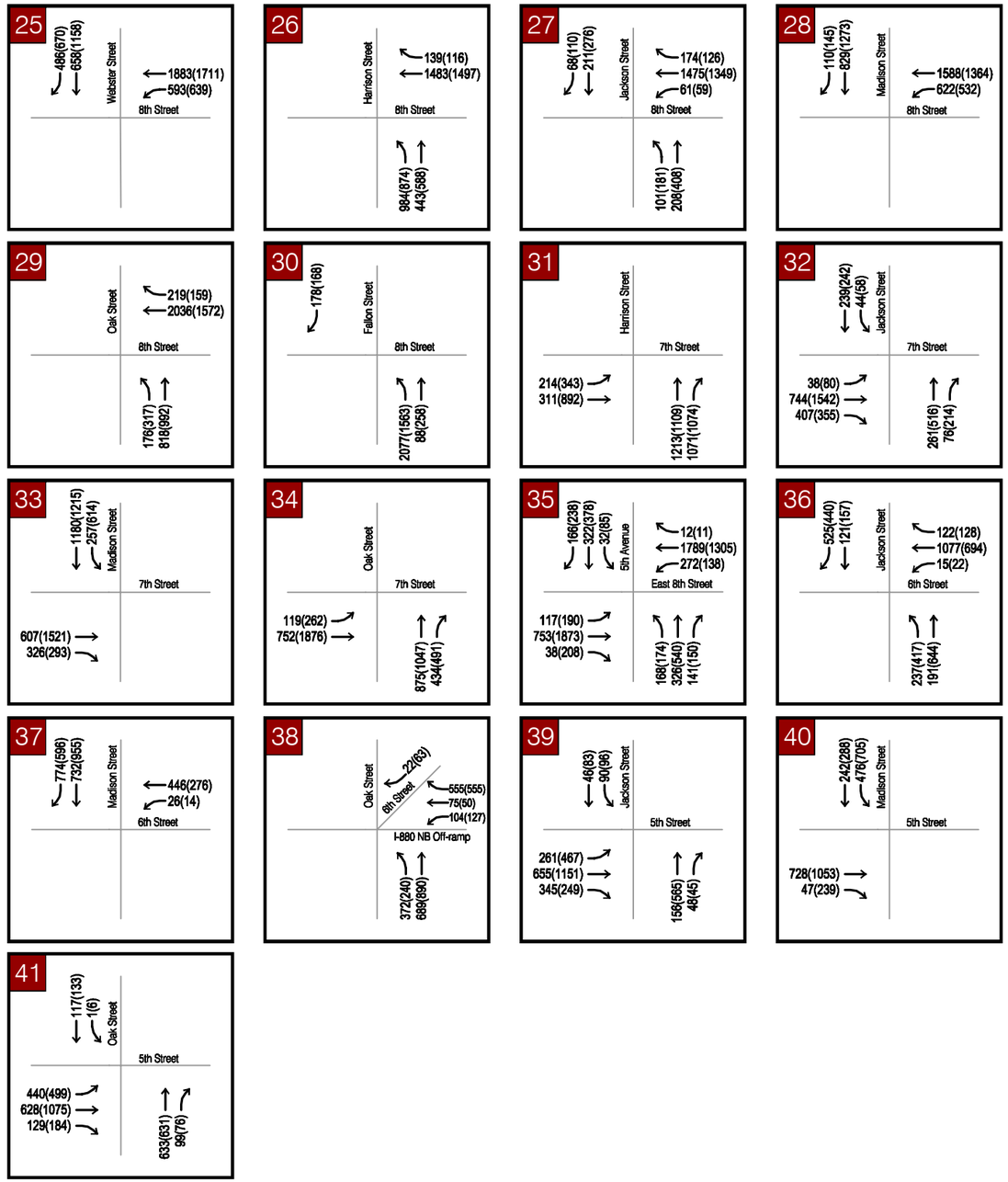


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FIGURE 3.2-17 (continued)

CUMULATIVE 2035 NO PROJECT CONDITION - AM/PM PEAK HOUR TURNING MOVEMENT VOLUMES

LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS

Cumulative 2035 No Project Freeway Segment Levels of Service

The evaluation of freeway segments in the Planning Area uses forecasted freeway volumes estimated by applying an annual growth rate (derived using the County's model) to Caltrans traffic counts conducted in 2011 for 24 years resulting in year 2035 traffic volumes.

The analysis results shown in **Table 3.2-25** indicate that the freeway segments meet Level of Service standards, except at the following locations:

- I-880 Northbound from Oak Street to Jackson Street (AM Peak and PM Peak)
- I-880 Southbound from Oak Street to Jackson Street (AM Peak and PM Peak)

Additional detail for the freeway segment analysis is provided in **Appendix D**.

Table 3.2-25: Cumulative 2035 No Project Freeway Segment Levels of Service

Freeway Segment	*LOS Threshold*	*Cumulative 2035 No Project*			
		AM Peak		*PM Peak*	
		LOS	*V/C*	*LOS*	*V/C*
I-880 - 5th Avenue to Oak Street)					
Northbound	E	**F**	**1.17**	**F**	**1.10**
Southbound	E	**F**	**1.01**	**F**	**1.13**
I-880 - Oak Street to Jackson Street					
Northbound	E	**F**	**1.13**	**F**	**1.08**
Southbound	E	**F**	**1.01**	**F**	**1.11**
I-880 - Jackson Street to I-980					
Northbound	E	E	0.91	D	0.89
Southbound	E	C	0.68	C	0.71
I-980 - I-880 to 14th Street					
Eastbound	E	D	0.87	D	0.88
Westbound	E	B	0.54	B	0.52
I-980 - 14th Street to 18th Street					
Eastbound	E	C	0.66	D	0.76
Westbound	E	B	0.45	A	0.33

Note: Locations operating at unacceptable levels are shown in **BOLD**. Freeway segments were analyzed using HCM methodology, which measures volume to capacity (V/C) to determine Level of Service.

Source: Kimley-Horn and Associates, Inc. (2013)

Cumulative 2035 No Project CMP and MTS Highway Segments

Traffic forecasts for Cumulative 2035, extracted from the County's model at the required CMP and MTS highway segment locations, were used to evaluate PM peak hour conditions in compliance with the County's CMP requirements. The PM peak hour volumes, V/C ratios and the Level of Service in No Project conditions represent both directions of flow. **Table 3.2-26** summarizes the results of the analysis.

Table 3.2-26: Cumulative 2035 No Project CMP Segment Evaluation

Segment	*Northbound / Eastbound*					*Southbound / Westbound*				
	Vol	*Cap*	*V/C*	*Lns*	*LOS*	*Vol*	*Cap*	*V/C*	*Lns*	*LOS*
Interstate/State Highways										
I-880 - South of Oak Street	8,494	8,400	1.01	4	F	8,845	10,500	0.84	5	D
I-880 - North of Castro Street	4,676	6,300	0.74	3	C	4,093	6,300	0.65	3	C
Arterials										
14th Street - North of Franklin Street	303	1,800	0.17	2	C	155	1,800	0.09	2	B
Harrison Street - South of 14th Street	1,067	1,800	0.59	2	D	664	1,800	0.37	2	C
Webster Street -South of 14th Street	n/a	n/a	n/a	n/a	n/a	1,490	2,710	0.55	3	C
Broadway - South of 14th Street	176	1,800	0.10	2	B	164	1,800	0.09	2	B
7th Street - West of Jackson Street	2,649	3,320	0.80	4	D	n/a	n/a	n/a	n/a	n/a
8th Street - East of Webster Street	3,135	3,320	0.94	4	E	n/a	n/a	n/a	n/a	n/a

Source: Alameda CTC P09 Countywide Model, Kittelson & Associates, Inc. 2012

Cumulative 2035 No Project AC Transit Bus Travel Times

Traffic operations were evaluated on 7th Street, 8th Street, Oak Street, and Madison Street to assess the effect of the development allowed by the Lake Merritt Station Area Plan on the AC Transit bus travel times. Estimated travel times under Cumulative 2035 No Project conditions are presented in **Table 3.2-27**.

As shown in **Table 3.2-27**, the maximum travel time in the AM Peak is 972seconds going westbound on 8th Street. In the PM peak, the maximum travel time is 579 seconds along 8th Street, as well. The majority of the high travel time is due to the high signal delay at the intersections within the roadway segment and in particular the intersection of 8th Street and Webster Street.

Table 3.2-27: Cumulative 2035 No Project AC Transit Bus Travel Times

Arterial	*From*	*To*	*Direction*	*Cumulative 2035 No Project*	
				AM Peak	*PM Peak*
				Travel Time (sec)	
7th Street	Harrison Street	Oak Street	EB	109	231
8th Street	Fallon Street	Webster Street	WB	972	579
Madison Street	11th Street	7th Street	SB	112	121
Oak Street	7th Street	12th Street	NB	98	113

Source: Kimley-Horn and Associates, Inc.

Analysis of Cumulative 2035 Plus Project Conditions

The Cumulative 2035 Plus Project scenario evaluates the effect on Level of Service of the net change in traffic between buildout of the Project and the Cumulative 2035 No Project scenario.[41] The method of developing the Cumulative 2035 Plus Project traffic forecasts was discussed briefly in the Project Trip Generation and Travel Demand Forecasting sub-section of the Impact Analysis section, and additional forecasting details are located in **Appendix D.** The Cumulative 2035 scenario represents full buildout of the opportunity site land uses in the Lake Merritt Station Area Plan. The Project's vehicle trips were added to the Cumulative 2035 No Project volumes to derive the Cumulative 2035 Plus Project conditions

Cumulative 2035 Plus Project Intersection Levels of Service

An evaluation of Level of Service under Cumulative 2035 Plus Project traffic conditions at the study intersections, and with the volumes shown in **Figure 3.2-20,** is presented in **Table 3.2-28.** All study intersections function within acceptable standards, except at the following fourteen locations:

- Grand Avenue and Broadway
- Madison Street and 14th Street
- Madison Street and 11th Street
- Madison Street and 10th Street
- Oak Street and 10th Street
- Harrison Street and 8th Street
- Jackson Street and 8th Street
- Oak Street and 8th Street
- Jackson Street and 7th Street
- Oak Street and 7th Street
- 5th Avenue and 7th Street / 8th Street
- Jackson St / 6th Street / NB I-880 on-ramp
- Oak St and 6th St / NB I-880 off-ramp
- Oak St / 5th St and SB I-880 on-ramp

In some cases, the Project reduces the traffic using the intersection, resulting in a slight improvement in the intersection Level of Service.

[41] Similar to the forecasting methodology used for the Interim 2020 No Project traffic projections include projected development within the study area, adding the traffic generated by the Plan would "double count" development of the Lake Merritt Station Area Plan's opportunity sites in the resulting Cumulative 2035 Plus Project traffic volumes. To avoid this double counting, the forecasting methodology used the procedure described in the methodology section. Details of the methodology are located in **Appendix D.**

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Table 3.2-28: Cumulative 2035 Plus Project Intersection Levels of Service

No.	Intersection	Cumulative 2035 No Project								Cumulative 2035 + Project														Impact[1]
		AM Peak				PM Peak				AM Peak							PM Peak							
		LOS	Delay[2]	V/C[3]	Critical V/C[3]	LOS	Delay[2]	V/C[3]	Critical V/C[3]	LOS	Delay[2]	Δ Delay[2]	V/C[3]	Δ V/C[3]	Critical V/C[3]	Δ Critical V/C[3]	LOS	Delay[2]	Δ Delay[2]	V/C[3]	Δ V/C[3]	Critical V/C[3]	Δ Critical V/C[3]	
1	Grand Ave and Broadway	D	39.3			**F**	**319.1**	3.18	4.28	D	39.3	0.0					**F**	**320.0**	**0.9**	**3.21**	**0.03**	**4.28**	**0.00**	**Y TRAN-13**
2	20th St. and Harrison St	C	21.6			C	21.1			C	21.4	-0.2					C	21.0	-0.1					N
3	19th St and Madison St	C	29.9			D	36.5			C	31.2	1.3					D	39.3	2.8					N
4	17th St and Madison St	B	10.5			A	9.1			B	11.4	0.9					B	11.9	2.8					N
5	Madison St. and 14th St	D	49.1			C	31.1			D	45.7	-3.4					**F**	**92.6**	**61.5**					**Y TRAN-14**
6	Oak St. and 14th St	**F**	**176.9**	**1.06**	**1.94**	**F**	**275.2**	**1.02**	**2.24**	**F**	**176.1**	**-0.8**	**1.07**	**0.01**	**1.94**	**0.00**	**F**	**275.4**	**0.2**	**1.04**	**0.02**	**2.26**	**0.02**	N
7	Madison St. and 13th St	B	13.0			B	13.3			B	13.8	0.8					C	21.0	7.7					N
8	Oak St. and 13th St	B	13.4			B	17.1			B	11.5	-1.9					B	19.7	2.6					N
9	Lake Merritt Blvd / 13th St	C	23.8			B	14.5			C	24.6	0.8					B	14.7	0.2					N
10	Brush St and 12th St	**F**	**124.0**	**1.13**	**1.24**	D	45.4			**F**	**123.4**	**-0.6**	**1.13**	**0.00**	**1.24**	**0.00**	D	47.2	1.8					N
11	Broadway and 12th St	B	18.8			C	31.1			B	18.9	0.1					C	28.7	-2.4					N
12	Madison St. and 12th St	B	10.8			B	11.7			B	11.4	0.6					B	13.9	2.2					N
13	Oak St. and 12th St	B	11.7			B	14.8			B	14.1	2.4					B	17.5	2.7					N
14	Lake Merritt Blvd / 11th St	E	55.7			E	70.2			E	57.0	1.3					E	74.6	4.4					N
15	1st Ave. / International Blvd	C	25.7			D	44.8			C	27.2	1.5					E	57.9	13.1					N
16	Lakeshore Ave / 18th St	B	15.3			B	17.8			B	15.2	-0.1					B	17.7	-0.1					N
17	Castro St and 11th St	C	32.9			D	44.4			C	32.9	0.0					D	44.4	0.0					N
18	Broadway and 11th St	C	27.2			C	23.9			C	31.6	4.4					C	24.6	0.7					N
19	Madison St. and 11th St	B	13.9			C	28.1			B	18.0	4.1					**F**	**134.1**	**106.0**					**Y TRAN-15**
20	Madison St. and 10th St	B	15.5			B	19.5			**F**	**84.0**	**68.5**					**F**	**156.2**	**136.7**					**Y TRAN-16**
21	Oak St. and 10th St	D	53.7			B	12.2			**F**	**334.2**	**280.5**					**F**	**235.8**	**223.6**					**Y TRAN-17**
22	Webster St. and 9th St	C	31.8			**F**	**110.6**	**0.81**	**1.21**	C	30.7	-1.1					**F**	**88.0**	**-22.6**	**0.76**	**-0.05**	**1.15**	**-0.06**	N
23	Madison St. and 9th St	A	9.0			A	8.4			B	10.6	1.6					B	12.3	3.9					N
24	Oak St. and 9th St	A	5.8			A	8.3			A	5.9	0.1					A	8.2	-0.1					N
25	Webster St. and 8th St	**F**	**240.6**	**1.24**	**1.83**	**F**	**201.1**	**1.49**	**1.68**	**F**	**246.7**	**6.1**	**1.24**	**0.00**	**1.83**	**0.00**	**F**	**219.2**	**18.1**	**1.50**	**0.01**	**1.71**	**0.03**	N
26	Harrison St. and 8th St	**F**	**81.1**	**1.01**	**1.26**	B	17.6			**F**	**168.1**	**87.0**	**1.14**	**0.13**	**1.62**	**0.36**	E	57.3	39.7					**Y TRAN-18**
27	Jackson St. and 8th St	**F**	**103.9**	**0.76**	**1.25**	**F**	**85.9**	**1.24**	**1.70**	**F**	**229.1**	**125.2**	**0.92**	**0.16**	**1.64**	**0.40**	**F**	**112.4**	**26.5**	**1.43**	**0.19**	**1.78**	**0.08**	**Y TRAN-19**

Table 3.2-28: Cumulative 2035 Plus Project Intersection Levels of Service

No.	Intersection	Cumulative 2035 No Project								Cumulative 2035 + Project														Impact[1]
		AM Peak				PM Peak				AM Peak							PM Peak							
		LOS	Delay[2]	V/C[3]	Critical V/C[3]	LOS	Delay[2]	V/C[3]	Critical V/C[3]	LOS	Delay[2]	Δ Delay[2]	V/C[3]	Δ V/C[3]	Critical V/C[3]	Δ Critical V/C[3]	LOS	Delay[2]	Δ Delay[2]	V/C[3]	Δ V/C[3]	Critical V/C[3]	Δ Critical V/C[3]	
28	Madison St. and 8th St	B	17.2			B	15.5			D	51.3	34.1					E	74.6	59.1					N
29	Oak St. and 8th St	**F**	**102.0**	**0.76**	**1.28**	D	41.7			**F**	**234.3**	**132.3**	**1.03**	**0.27**	**1.71**	**0.43**	**F**	**159.6**	**117.9**					**Y TRAN-20**
30	Fallon St. and 8th St	A	0.0			A	0.0			A	0.0	0.0					A	0.0	0.0					N
31	Harrison St. and 7th St	B	13.7			B	13.2			B	13.4	-0.3					B	13.1	-0.1					N
32	Jackson St. and 7th St	C	22.6			**F**	**101.7**	**1.20**	**1.22**	C	24.8	2.2					**F**	**147.4**	**45.7**	**1.47**	**0.27**	**1.68**	**0.46**	**Y TRAN-21**
33	Madison St. and 7th St	B	16.5			C	31.4			B	16.8	0.3					E	60.0	28.6					N
34	Oak St. and 7th St	B	15.9			E	55.0			C	33.1	17.2					**F**	**96.4**	**41.4**					**Y TRAN-22**
35	5th Ave. and 7th St/8th St	**F**	**135.6**	**1.56**	**1.62**	**F**	**197.9**	**2.34**	**2.49**	**F**	**143.2**	**7.6**	**1.65**	**0.09**	**1.68**	**0.06**	**F**	**211.6**	**13.7**	**2.46**	**0.12**	**2.70**	**0.21**	**Y TRAN-23**
36	Jackson St. and 6th St	**F**	**382.5**	**1.24**	**2.68**	**F**	**157.4**	**1.39**	**1.92**	**F**	**412.8**	**30.3**	**1.28**	**0.04**	**2.82**	**0.14**	**F**	**187.1**	**29.7**	**1.34**	**-0.05**	**2.12**	**0.20**	**Y TRAN-24**
37	Madison St. and 6th St	B	10.4			A	8.3			D	39.9	29.5					E	72.8	64.5					N
38	Oak St. and 6th St	D	51.8			E	66.8			**F**	**395.3**	**343.5**					**F**	**451.6**	**384.8**					**Y TRAN-25**
39	Jackson St. and 5th St	D	42.8			**F**	**136.4**	**1.65**	**2.10**	E	58.4	15.6					**F**	**113.2**	**-23.2**	**1.21**	**-0.44**	**1.23**	**-0.87**	N
40	Madison St. and 5th St	B	11.1			B	19.7			B	16.9	5.8					E	71.6	51.9					N
41	Oak St. and 5th St	**F**	**123.3**	**1.01**	**1.66**	**F**	**104.0**	**1.19**	**1.68**	**F**	**148.4**	**25.1**	**1.10**	**0.09**	**1.81**	**0.15**	**F**	**129.0**	**25.0**	**1.30**	**0.11**	**1.84**	**0.16**	**Y TRAN-26**
42	NA (Segment analysis below)																							
	City of Alameda Intersections																							
43	Constitution & Marina Village Pkwy	D	45.2			E	59.8			D	44.6	-0.6					E	59.5	-0.3					N
44	Constitution Wy & Atlantic Av	B	14.6			D	45.3			B	14.5	-0.1					D	39.1	-6.2					N
45	Webster St & Atlantic Av	D	38.7			C	29.3			D	38.0	-0.7					C	28.8	-0.5					N

Notes:

Locations operating at unacceptable levels are shown in **BOLD**, and impacted intersections are highlighted.

[1] This column identifies intersections that have been impacted based on the City of Oakland's CEQA significance thresholds (or the City of Alameda's Level of Service criteria) and, if there is a significant impact, the impact number (TRAN-XX) is shown in this column.

[2] Delay is presented in seconds per vehicle. ΔDelay represents the change in delay (seconds per vehicle) between the with and without Project scenarios. Calculation of delay in over-capacity conditions (i.e. LOS F) is not reliable. Therefore, delay in excess of 80 seconds is only reported to allow a relative comparison of conditions without and with project traffic and should not be interpreted as an exact representation of actual delay.

[3] V/C = the ratio of the volume of traffic passing through an intersection to the capacity of the intersection's lane groups. The V/C ratio is the average V/C ratio for the entire intersection, and is an indicator of the utilization of intersection's overall capacity. The critical V/C ratio is the highest ratio of all of the intersection's approaches and lane groups. The critical V/C will control the amount of a traffic signal's green time that can be shared between all of the approaches. Δ V/C and Δ Critical V/C represent the change in V/C ratio between the with and without Project scenarios.

Source: Kimley-Horn and Associates, Inc. (2013)

Cumulative 2035 Plus Project Analysis of City of Alameda Intersections

The last three intersections listed in **Table 3.2-28** present the Cumulative 2035 conditions with and without the Project at intersections located in the City of Alameda. As shown in the table, cumulative growth without the addition of the Project has degraded levels of service to a LOS D or LOS E at the three intersections selected as indicators of potential Project impacts in Alameda. At buildout in the year 2035, the Project reduces the volume of traffic entering Alameda (subtracting about 48 vehicle trips) and adds about 39 trips to the volume of traffic leaving Alameda in the AM peak hour when compared to No Project conditions. In the PM peak hour, the Project reduces the amount of traffic entering Alameda (by about 120 trips) (and adds about 28 trips to the traffic leaving Alameda when compared to No Project conditions.

The Project reduces traffic entering Alameda because the Project replaces higher traffic generating land uses allowed in the current General Plan with lower traffic generating land uses allowed in the Lake Merritt Station Area Plan. The intersection of Constitution Way and Marina Village Parkway degrades to a LOS E in the PM peak hour under the cumulative growth in traffic by 2035 without the Project. However, because the Project results in a reduction of trips traveling between Oakland and Alameda in the afternoon, in the 2035 Plus Project scenario, the Project contributes to a slight improvement in the Level of Service of the intersection of Constitution Way and Marina Village Parkway. The Project affects the other City of Alameda study intersections in a similar manner. Because of this beneficial decrease in traffic caused by the Project, there are no significant impacts based on the City of Alameda's significance criteria.

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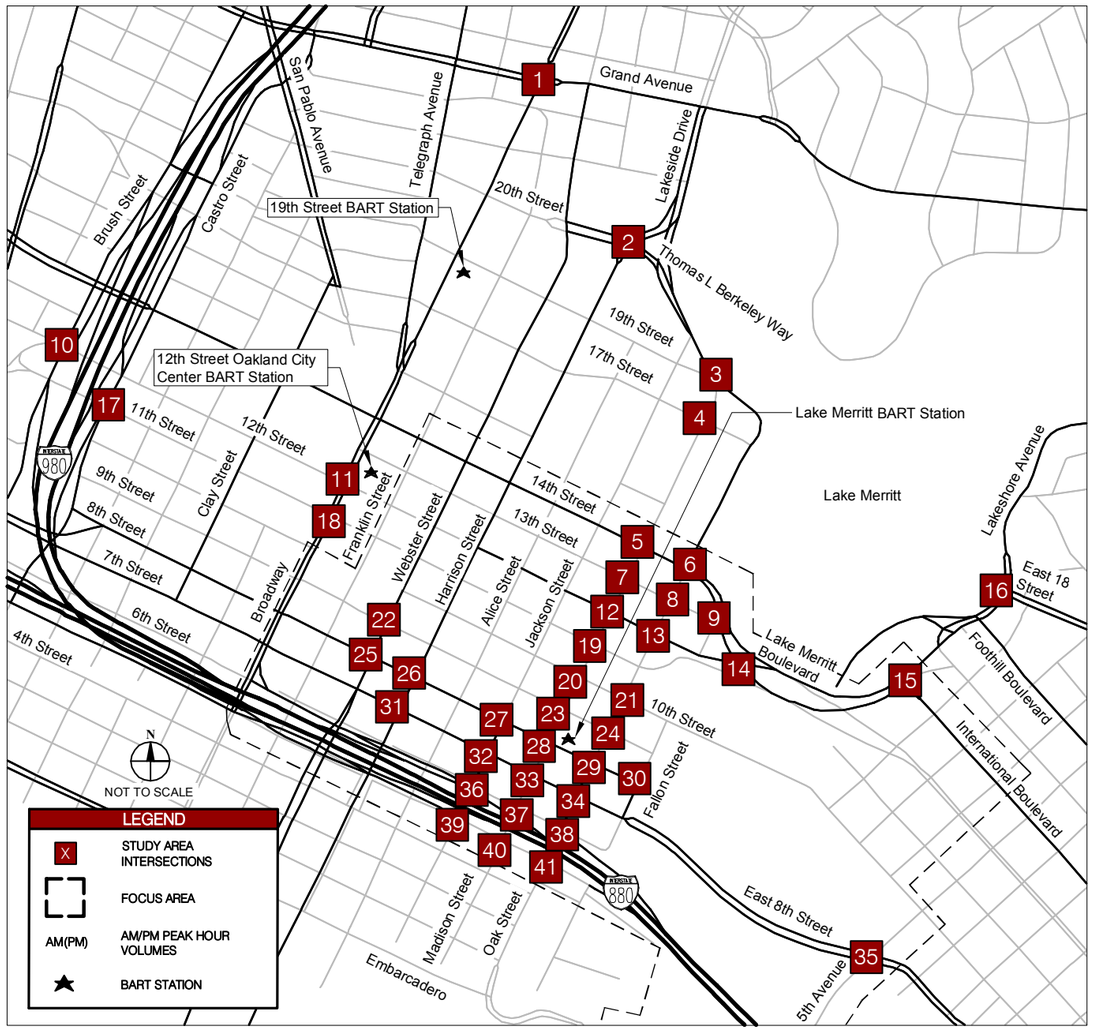

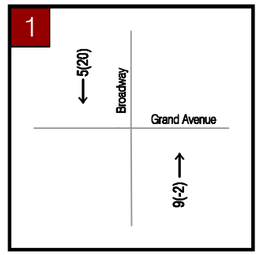

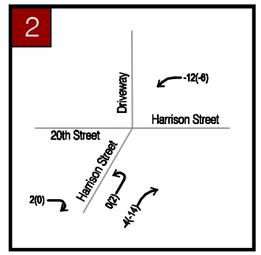

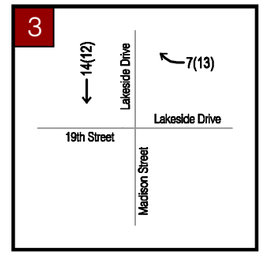

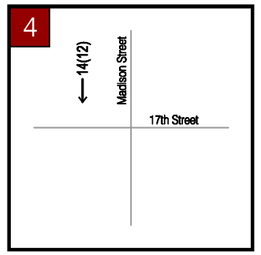

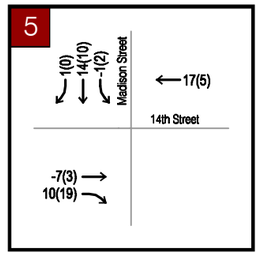

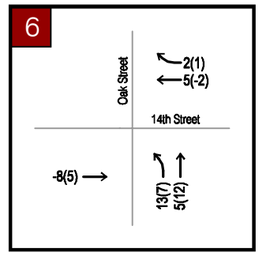

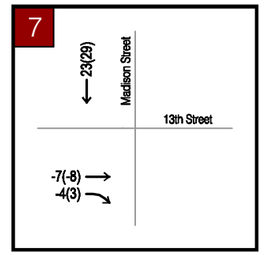

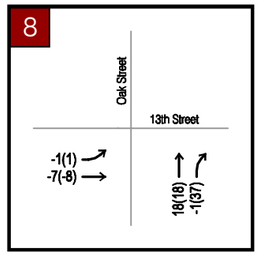

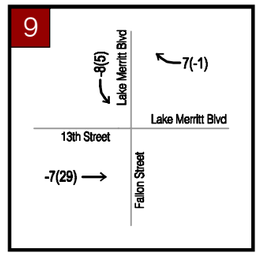

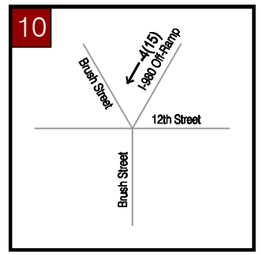

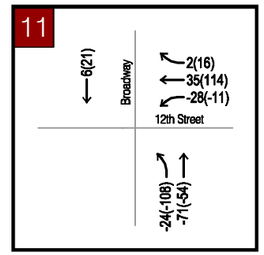

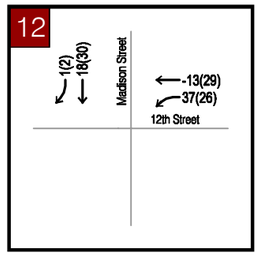

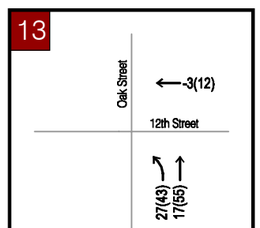

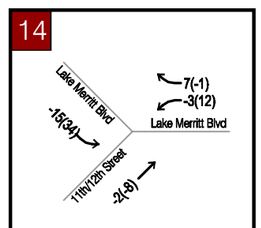

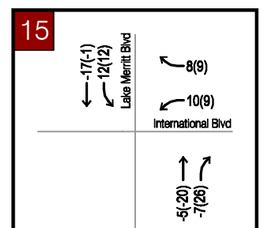

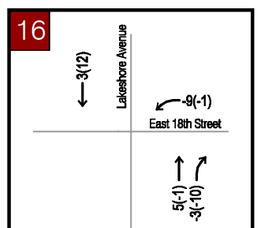

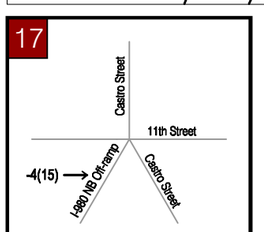

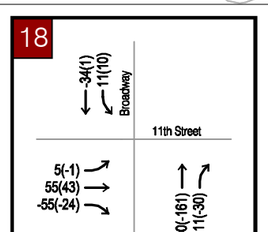

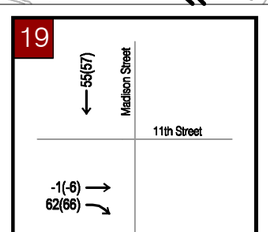

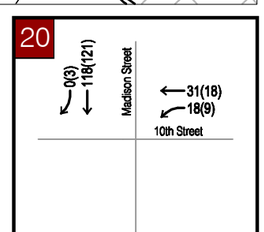

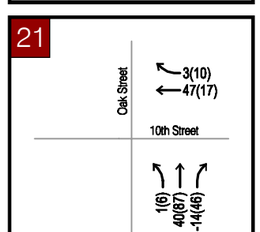

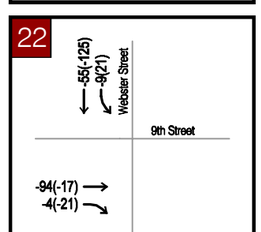

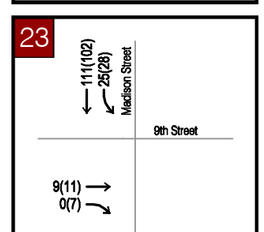

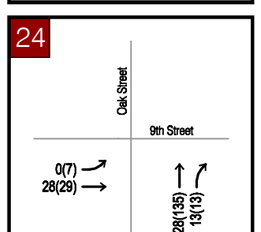

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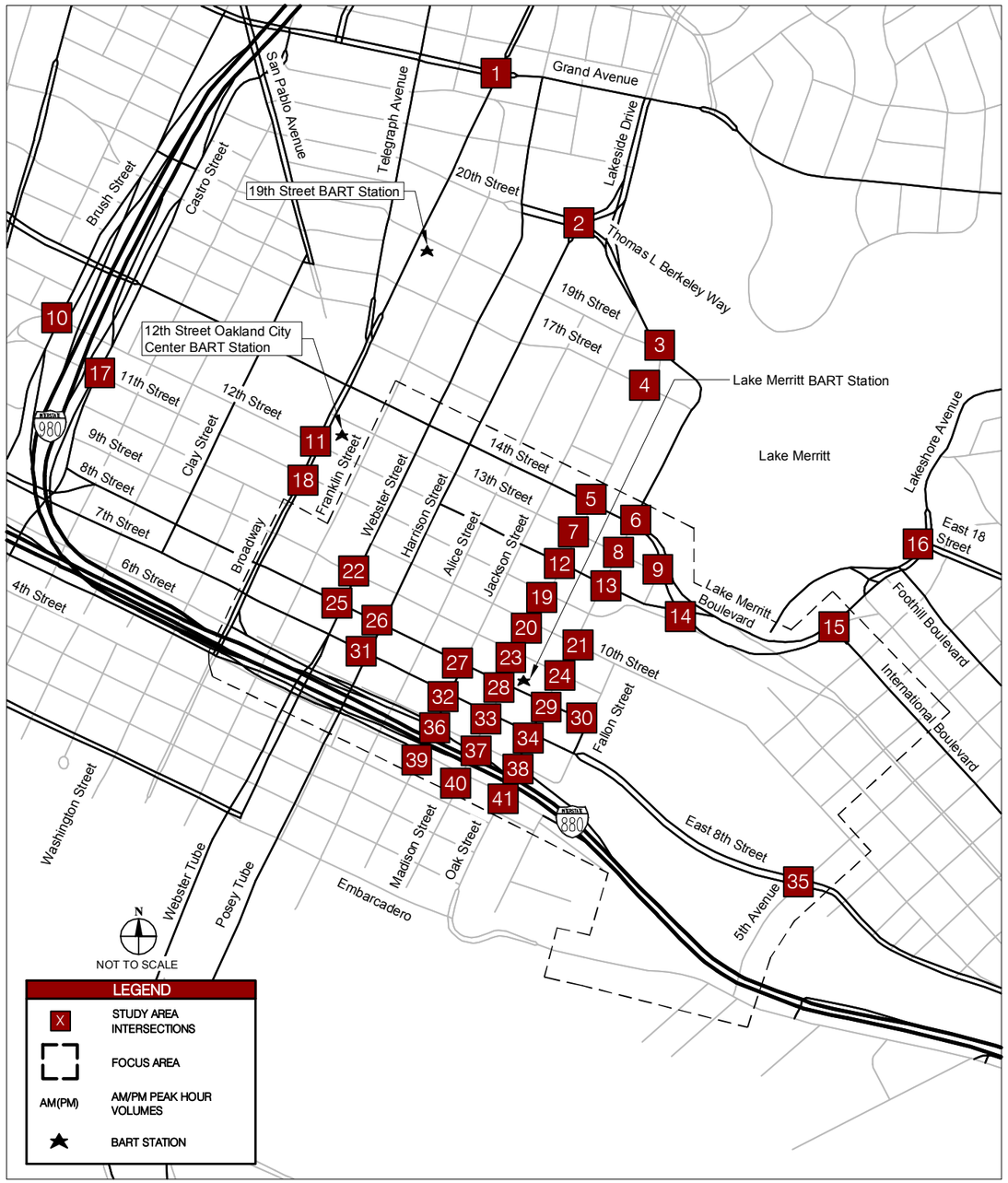
FIGURE 3.2-18

PROPOSED INCREMENTAL PROJECT VOLUMES IN CUMULATIVE 2035 PLUS PROJECT

LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS



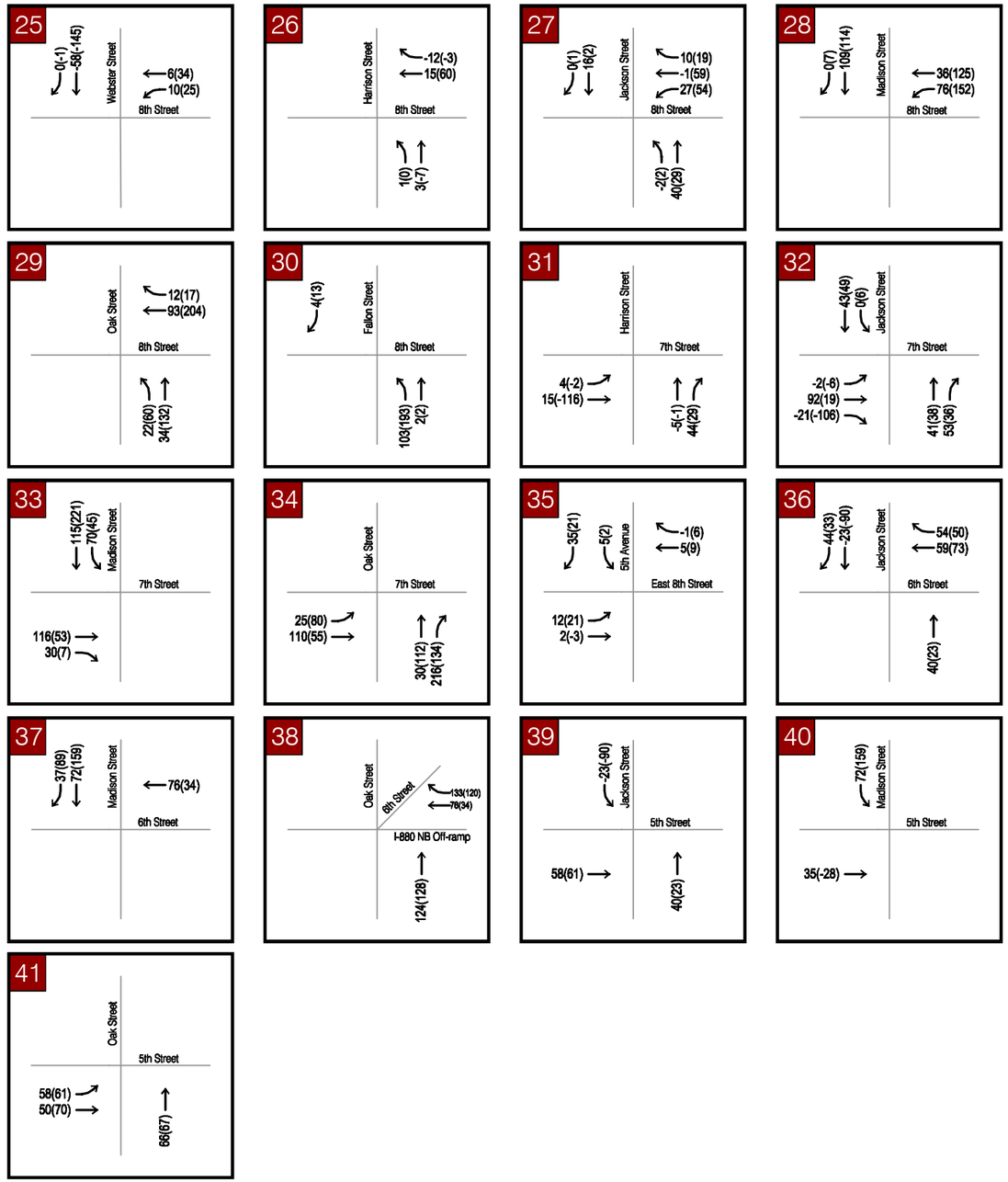


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FIGURE 3.2-18 (continued)
PROPOSED INCREMENTAL PROJECT VOLUMES IN CUMULATIVE 2035 PLUS PROJECT
LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS

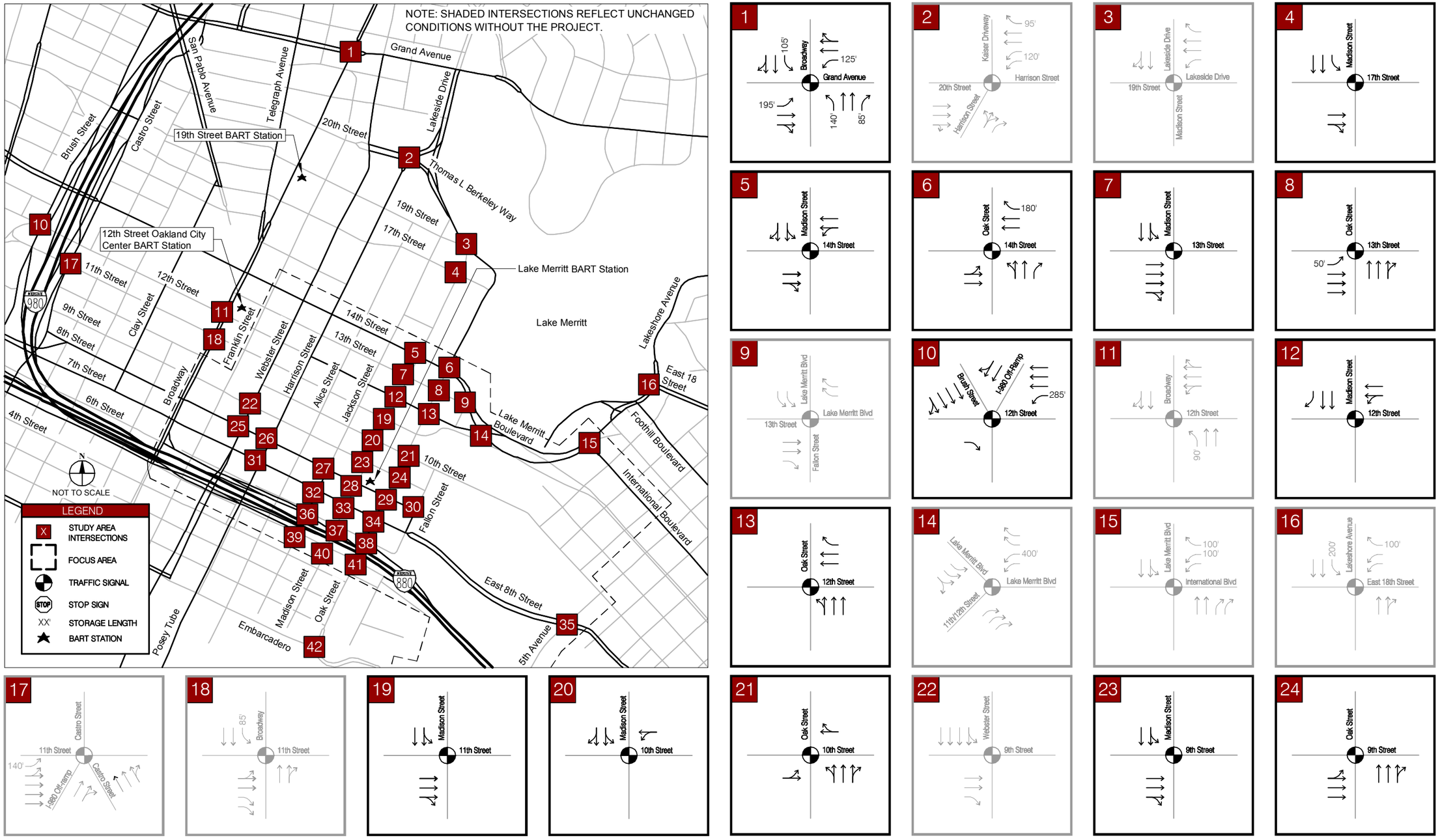

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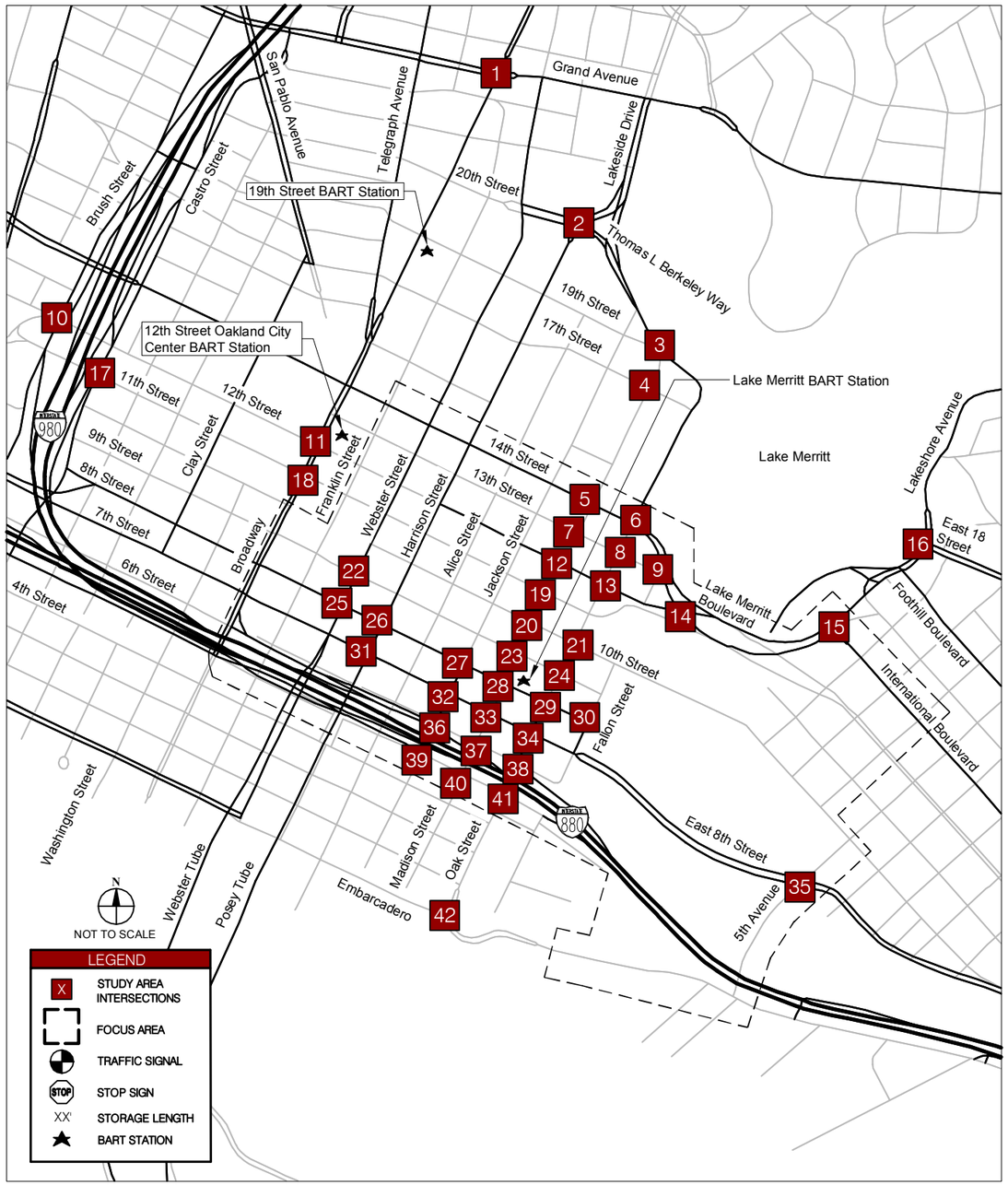
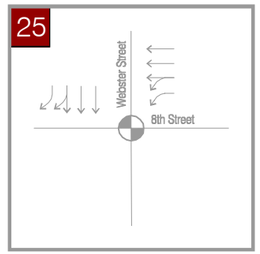
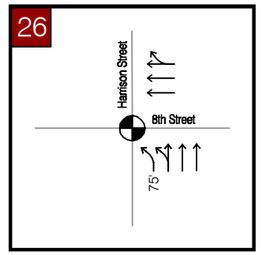
FIGURE 3.2-19

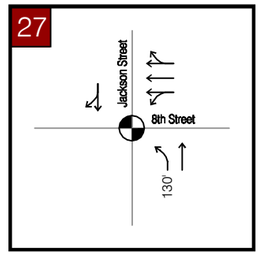
CUMULATIVE 2035 PLUS PROJECT CONDITION - LANE GEOMETRY AND TRAFFIC CONTROL

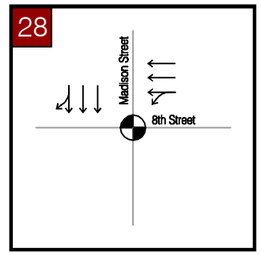
LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS

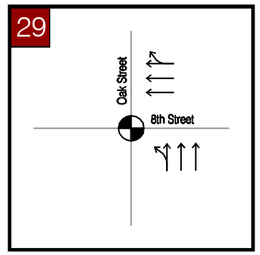


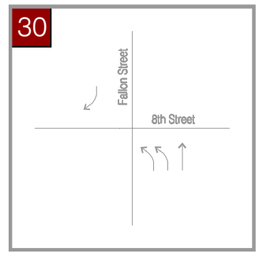


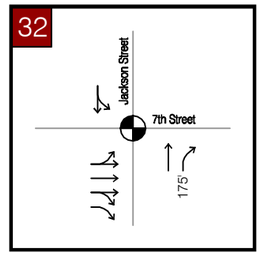


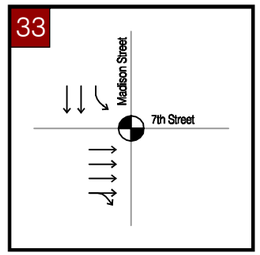


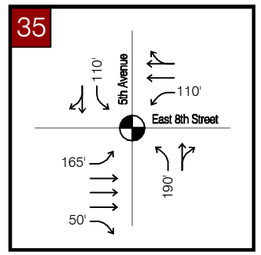


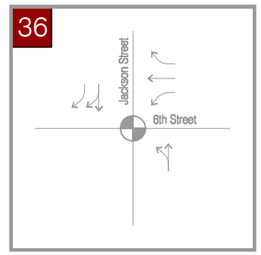


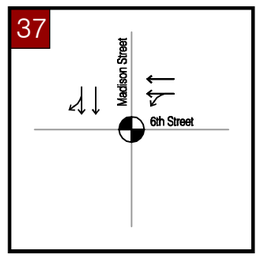


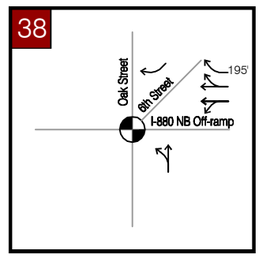


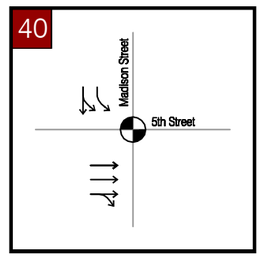


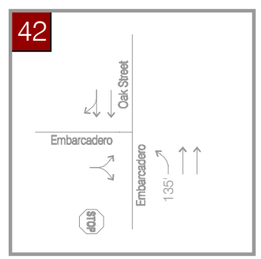












NOTE: SHADED INTERSECTIONS REFLECT UNCHANGED CONDITIONS WITHOUT THE PROJECT.

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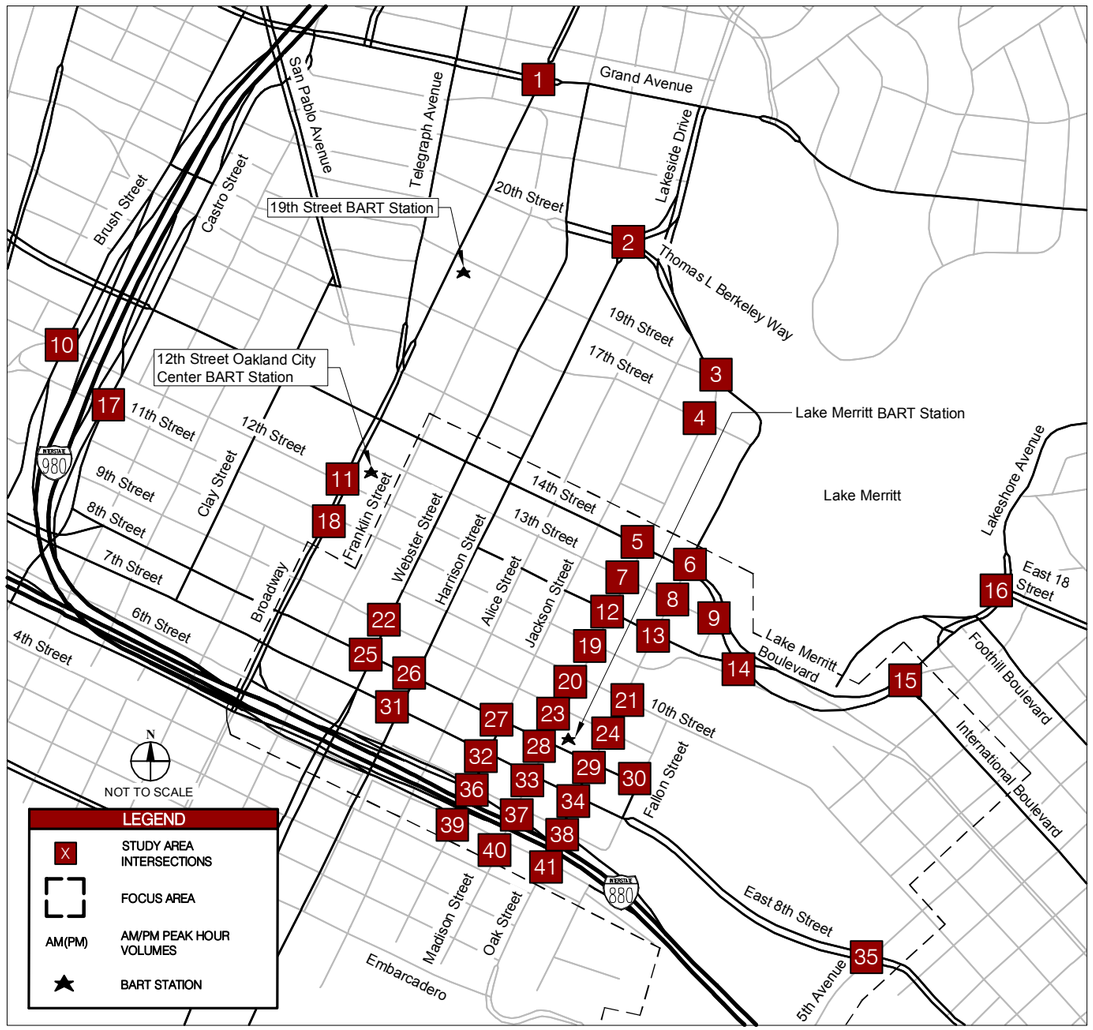
FIGURE 3.2-19 (continued)

CUMULATIVE 2035 PLUS PROJECT CONDITION - LANE GEOMETRY AND TRAFFIC CONTROL

LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS



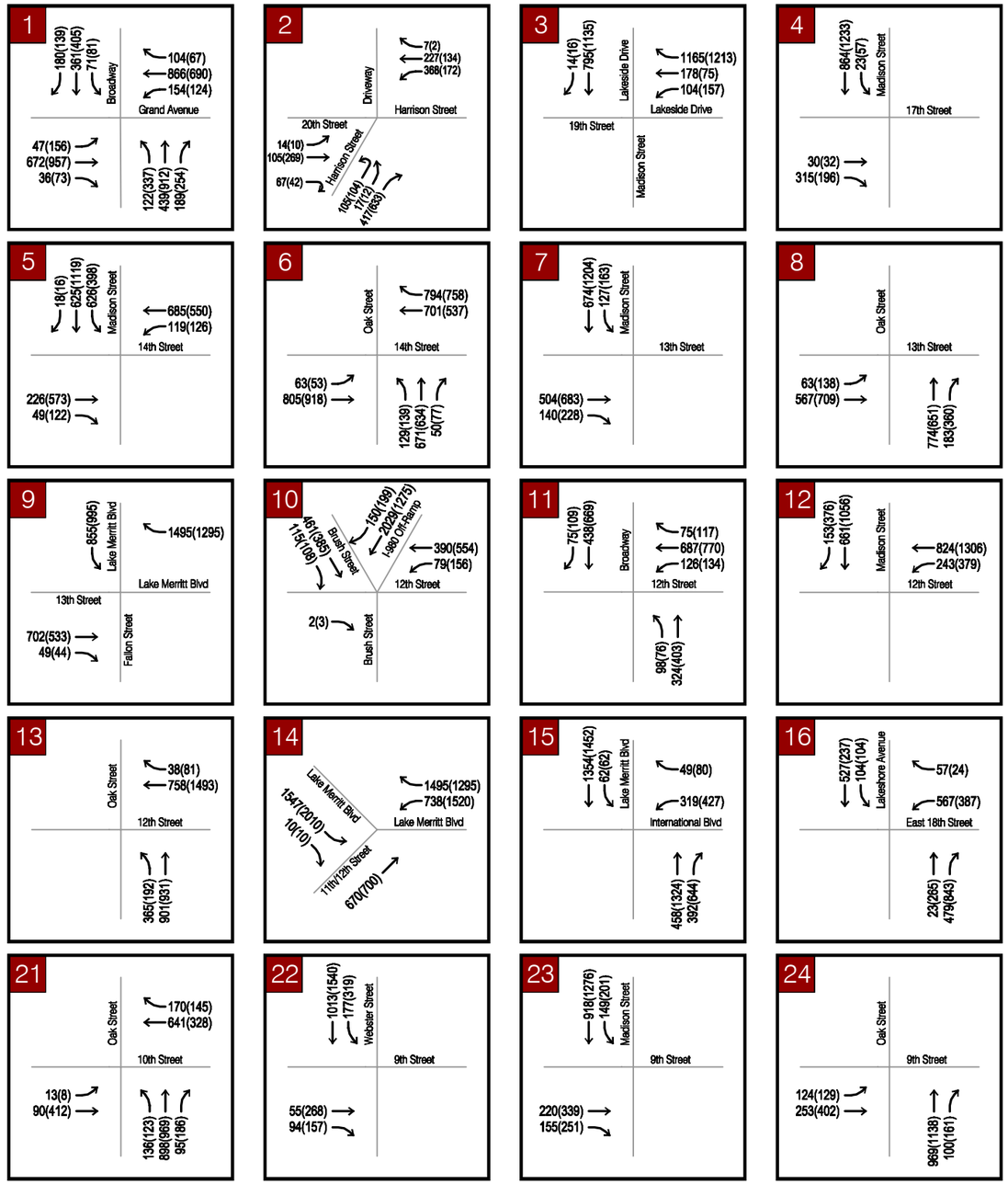


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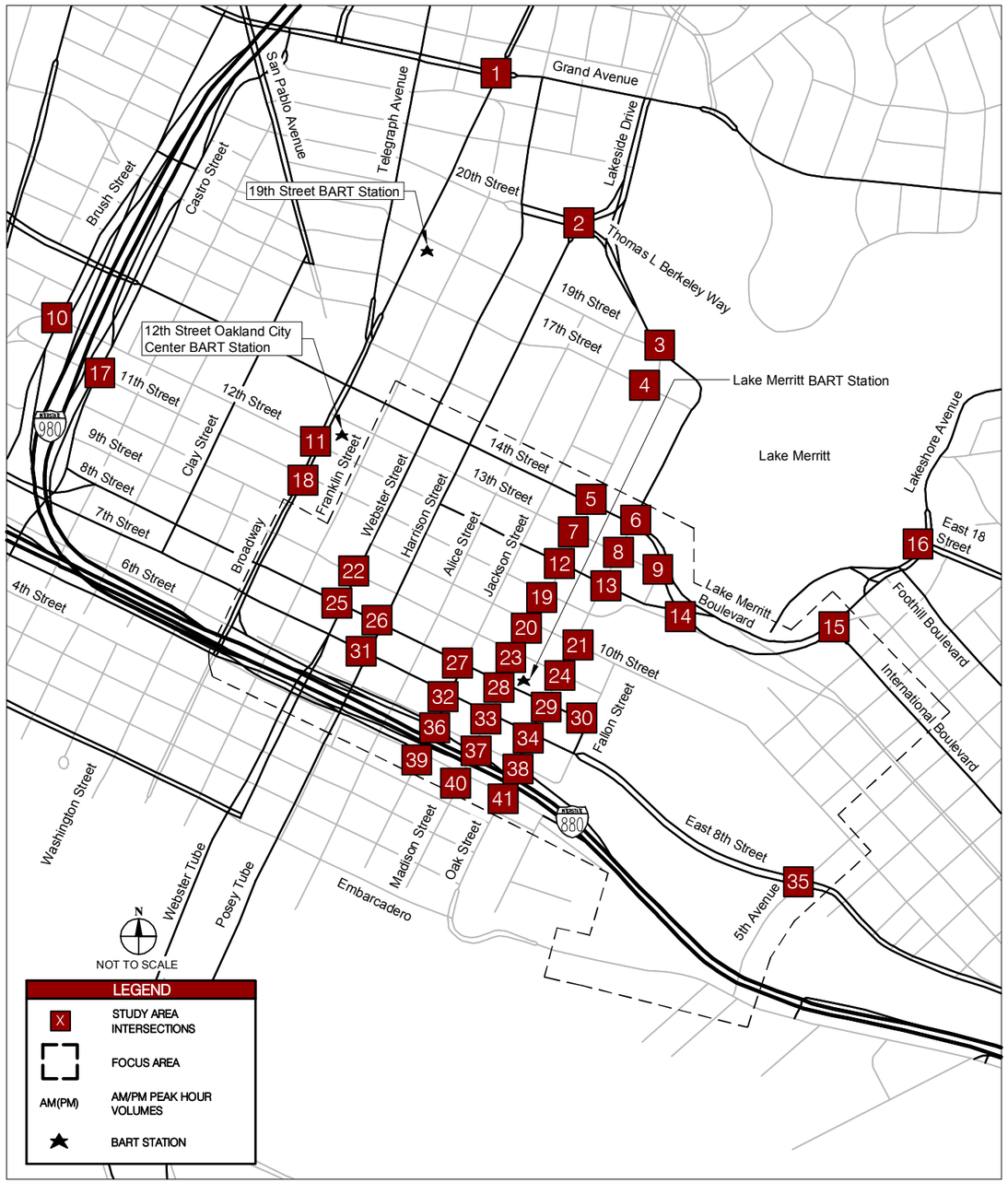
FIGURE 3.2-20
CUMULATIVE 2035 PLUS PROJECT VOLUMES
LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS



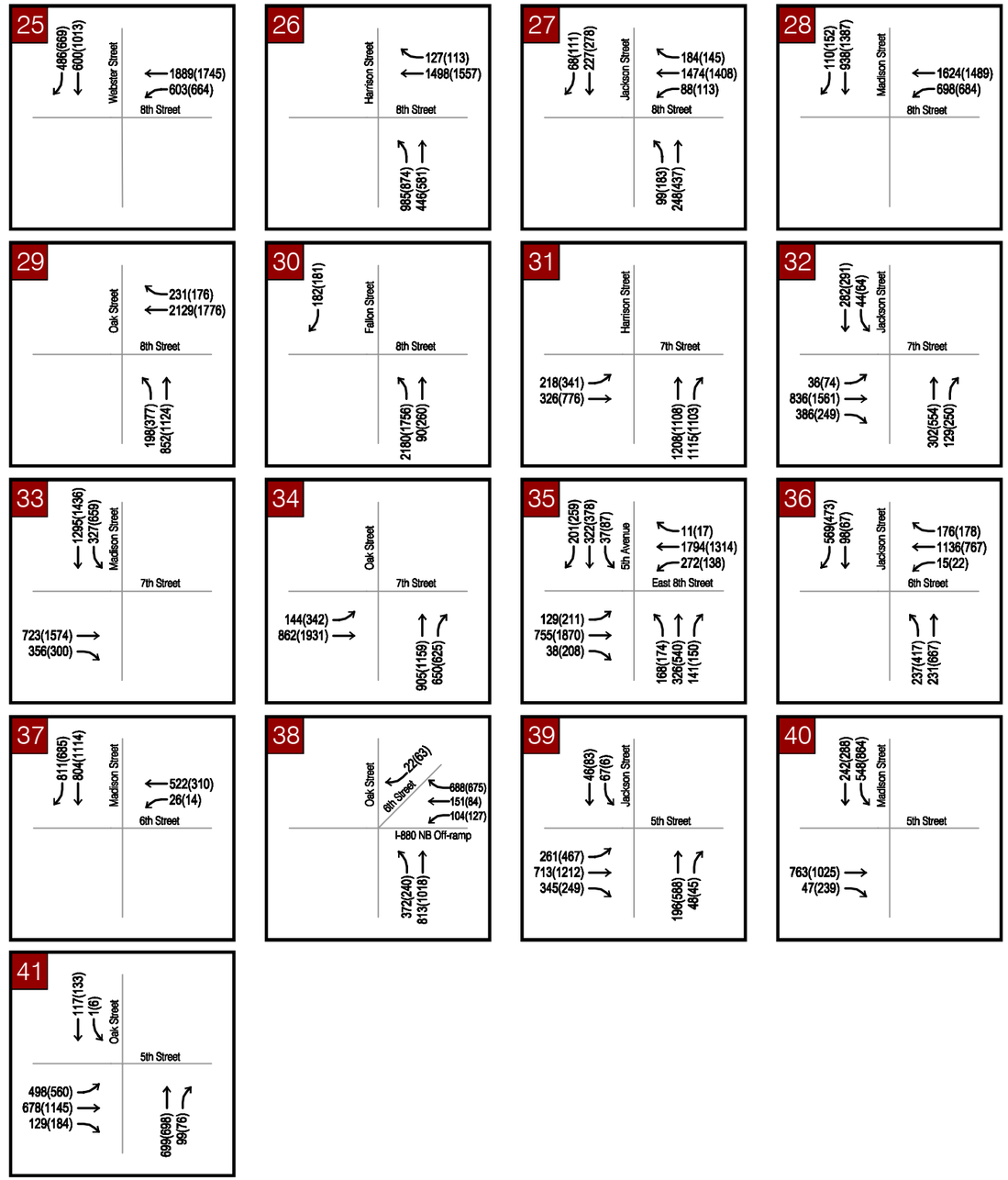


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FIGURE 3.2-20 (continued)
CUMULATIVE 2035 PLUS PROJECT VOLUMES
LAKE MERRITT STATION AREA PLAN TRANSPORTATION IMPACT ANALYSIS

Cumulative 2035 Plus Project Roadway Segment Levels of Service

An evaluation of Oak Street between 2nd Street and Embarcadero under Cumulative 2035 Plus Project conditions is shown in **Table 3.2-29**. The Project proposes to reduce the number of lanes on Oak Street from two lanes in each direction to one lane in each direction south of Embarcadero. This would result in the cross-section of Oak Street south of Embarcadero consistent with the segment north of Embarcadero.

According to the analysis results shown in **Table 3.2-29**, Oak Street only meets the LOS E standard with four lanes. The two-lane segment exceeds the standard in the PM peak hour. This creates a need to make trade-off decision between a) meeting the vehicular Level of Service standard during the peak hours, and b) accepting a peak hour of congested traffic in order to implement continuous bike lanes connecting Lake Merritt's recreational and commuting off-street path system with the Estuary waterfront area including Jack London Square, the Amtrak Station on Embarcadero, the San Francisco Bay Trail, and the Alameda County 2nd Street Bike Route 5.

Cumulative 2035 Plus Project Level of Service at Freeway Segments

Table 3.2-30 compares the freeway segment levels of service between the Cumulative 2035 No Project and Project scenarios. The results shown in **Table 3.2-30** indicate that nearly half of the study segments fail to meet the service level standards. Segments, and associated peak hour, that exceed the standards include:

- I-880 Northbound from Oak Street to Jackson Street (AM Peak and PM Peak)
- I-880 Southbound from Oak Street to Jackson Street (AM Peak and PM Peak)
- I-880 Northbound from Jackson Street to I-980 (AM Peak)
- I-980 Eastbound from I-880 to 14th Street (AM Peak and PM Peak)

Note that these freeway segments fail to meet the standards without traffic from the Lake Merritt Station Area Plan. In order for the Project to cause a significant impact to a freeway segment already operating at LOS F, it must increase the freeway segment's V/C ration by at least 0.03. Since the Project does not increase the V/C ratio by 0.03 with the addition of its traffic, there isn't any significant impacts. Additional detail of the freeway segment analysis is provided in **Appendix D**.

Table 3.2-29: Cumulative 2035 Plus Project Roadway Segment Levels of Service Summary

Street Segment	*Cumulative 2035 No Project*						*Cumulative 2035 + Project*								*Impact*
	AM Peak			*PM Peak*			*AM Peak*				*PM Peak*				
	Vol	*LOS*	*V/C*	*Vol*	*LOS*	*V/C*	*Vol*	*LOS*	*V/C*	Δ V/C	*Vol*	*LOS*	*V/C*	Δ V/C	
Oak Street															
2nd Street to Embarcadero (4-Lanes / Divided)	879	D	0.44	1,020	D	0.51	945	E	0.47	0.03	1,087	D	0.54	0.03	N
2nd Street to Embarcadero (2-Lanes / Divided)							945	E	0.96	0.52	**1,087**	**F**	**1.11**	**0.6**	**Y TRAN-27**

Source: Kimley-Horn and Associates, Inc. (2013)

Table 3.2-30: Cumulative 2035 Plus Project Freeway Segment Levels of Service

Freeway Segment	*LOS Threshold*	*Cumulative 2035 No Project*				*Cumulative 2035 + Project*						*Impact*[1]
		AM Peak		*PM Peak*		*AM Peak*			*PM Peak*			
		LOS	*V/C*	*LOS*	*V/C*	*LOS*	*V/C*	*ΔV/C*	*LOS*	*V/C*	*ΔV/C*	
I-880 - 5th Avenue to Oak Street												n/a
Northbound	E	**F**	**1.17**	**F**	**1.10**	**F**	**1.18**	**0.01**	**F**	**1.11**	**0.01**	N
Southbound	E	**F**	**1.01**	**F**	**1.13**	**F**	**1.01**	**0.00**	**F**	**1.13**	**0.00**	N
I-880 - Oak Street to Jackson Street												
Northbound	E	**F**	**1.13**	**F**	**1.08**	**F**	**1.11**	**-0.02**	**F**	**1.07**	**-0.01**	N
Southbound	E	**F**	**1.01**	**F**	**1.11**	**F**	**1.01**	**0.00**	**F**	**1.10**	**-0.01**	N
I-880 - Jackson Street to I-980												N
Northbound	E	**F**	**1.01**	E	0.99	**F**	**1.02**	**0.01**	E	1.00	0.01	N
Southbound	E	C	0.75	D	0.78	D	0.76	0.01	D	0.79	0.01	N
I-980 - I-880 to 14th Street												N
Eastbound	E	**F**	**1.06**	**F**	**1.07**	**F**	**1.07**	**0.01**	**F**	**1.08**	**0.01**	N
Westbound	E	C	0.65	C	0.64	C	0.66	0.01	C	0.65	0.01	N
I-980 - 14th Street to 18th Street												N
Eastbound	E	D	0.76	D	0.87	D	0.77	0.01	D	0.88	0.01	N
Westbound	E	B	0.52	B	0.38	B	0.53	0.01	B	0.39	0.01	N

Notes:
Locations operating at unacceptable levels of service are shown in **BOLD**. Freeway segments were analyzed using 2000 HCM methodologies, which measures volume to capacity (V/C) to determine Level of Service.

[1] This column identifies segments that are impacted based on the applicable CEQA significance thresholds, and, if there a significant impact, the impact Number (TRAN-XX) is shown in the column.

Source: Kimley-Horn and Associates, Inc. (2013)

Table 3.2-31: Cumulative 2035 Plus Project CMP Segment Evaluation

Segment	***Cumulative 2035 No Project*** *Northbound / Eastbound*					***Cumulative 2035 Plus Project*** *Northbound / Eastbound*					**Impact**
	Volume	*Capacity*	*V/C*	*Lanes*	*LOS*	*Volume*	*Capacity*	*V/C*	*Lanes*	*LOS*	
Interstate/State Highways											
I-880 - south of Oak Street	8,494	8,400	1.01	4	F	8,452	8,400	1.01	4	F	N
I-880 - north of Castro Street	4,676	6,300	0.74	3	C	4,693	6,300	0.74	3	C	N
Arterials											
14th Street - north of Franklin Street	303	1,800	0.17	2	C	332	1,800	0.18	2	C	N
Harrison Street - south of 14th Street	1,067	1,800	0.59	2	D	1,118	1,800	0.62	2	D	N
Webster Street -south of 14th Street	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-
Broadway - south of 14th Street	176	1,800	0.10	2	B	193	1,800	0.11	2	B	N
7th Street - West of Jackson Street	2,649	3,320	0.80	4	D	2,643	3,320	0.80	4	D	N
8th Street - East of Webster Street	3,135	3,320	0.94	4	E	3,318	3,320	1.00	4	E	N
Segment	***Cumulative 2035 No Project*** *Southbound / Westbound*					***Cumulative 2035 Plus Project*** *Southbound / Westbound*					
	Volume	*Capacity*	*V/C*	*Lanes*	*LOS*	*Volume*	*Capacity*	*V/C*	*Lanes*	*LOS*	
Interstate/State Highways											
I-880 - south of Oak Street	8,845	10,500	0.84	5	D	9,034	10,500	0.86	5	D	N
I-880 - north of Castro Street	4,093	6,300	0.65	3	C	4,128	6,300	0.66	3	C	N
Arterials											
14th Street - north of Franklin Street	155	1,800	0.09	2	B	119	1,800	0.07	2	B	N
Harrison Street - south of 14th Street	664	1,800	0.37	2	C	771	1,800	0.43	2	C	N
Webster Street -south of 14th Street	1,490	2,710	0.55	3	C	1,443	2,710	0.53	3	C	N
Broadway - south of 14th Street	164	1,800	0.09	2	B	152	1,800	0.08	2	B	N
7th Street - West of Jackson Street	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-
8th Street - East of Webster Street	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-

Source: Alameda CTC P09 Countywide Model, Kittelson & Associates, Inc. 2012

Cumulative 2035 Plus Project CMP and MTS Highway Segments

Traffic forecasts for Cumulative 2035, extracted from the County's model at the required CMP and MTS highway segment locations, were used to evaluate PM peak hour conditions in compliance with the County's CMP requirements. The PM peak hour volumes, V/C ratios and the Level of Service in No Project conditions represent both directions of flow. **Table 3.2-31** presents the results for the Cumulative 2035 Plus Project scenario.

Cumulative 2035 Plus Project AC Transit Bus Travel Times

As noted earlier, in the discussion of transit travel time in Existing Plus Project Conditions, the City of Oakland has no basis to establish a numerical threshold for "substantially increased travel times". Furthermore, previously mentioned factors, make estimating AC Transit travel times with reasonable certainty throughout the life of the project, or establishing numerical thresholds for AC Transit travel times, difficult and impractical. However, to the extent feasible, this section provides an analysis of how the Project would affect transit travel times.

Traffic operations were evaluated on 7th Street, 8th Street, Oak Street, and Madison Street to assess the effect of the Project on AC Transit bus travel times on these corridors. Estimated travel times in the Cumulative 2035 Plus Project conditions are presented in **Table 3.2-32**. In general, there is an increase in travel times, with the greatest – 576 seconds (or 9.6 minutes) – on 8th Street between Fallon and Webster Streets.

Although not reflected in the quantitative travel time analysis in **Table 3.2-32**, various transit access improvement policies that are part of the Lake Merritt Station Area Plan, including policies C-33 and C-46 that call for transit signal priority, bus bulbs, and improved management of curb space— will contribute to offsetting any increase in travel time due to the Project. Therefore, this impact is considered less than significant and no mitigation is required.

Table 3.2-32: Cumulative 2035 Plus Project AC Transit Bus Travel Times

Arterial	*Limits*	*Dir*	*Cumulative 2035 No Project*		*Cumulative 2035 + Project*			
			AM	*PM*	*AM*		*PM*	
			Travel Time (sec)		*Travel Time (sec)*	*Δ Travel Time (sec)*	*Travel Time (sec)*	*Δ Travel Time (sec)*
7th	Harrison to Oak	EB	109	231	114	5	265	34
8th	Fallon to Webster	WB	972	579	1548	576	970	391
Madison	11th to 7th	SB	112	121	146	34	336	215
Oak	7th to 12th	NB	98	113	106	8	111	-2

Source: Kimley-Horn and Associates, Inc. (2013)

DISCUSSION OF CEQA IMPACTS AND MITIGATION MEASURES

This section identifies Project impacts and their significance, along with mitigation measures that are recommended to reduce impacts to less than significant if feasible. Lake Merritt Station Area Plan policies that can reduce impacts are presented, but if it cannot be demonstrated quantitatively that the

policies reduce the impact to less than significant, then the policies are not considered in determining the significance of the impact, and capital or operational improvements are recommended as mitigation. Impacts which cannot be feasibly mitigated (including a reasonable method of funding) are designated Significant and Unavoidable. Implementation actions, including funding mechanism and timing are identified for feasible mitigation measures.

This section is organized as follows:

- Traffic Load and Capacity - Criteria 1 to 9
  - Existing Plus Project Scenario
  - Interim 2020 Plus Project
  - Cumulative 2035 Plus Project Scenario
- Traffic Safety - Criteria 10 to 14
- Other – Criteria 15 to 17

Subsequent sections discuss CEQA thresholds #10 through #17, followed by the "Planning-Related Non-CEQA Issues". The discussion of non-CEQA issues is for informational purposes only.

TRAFFIC LOAD AND CAPACITY IMPACTS (Criteria #1 through #9)

Oakland's CEQA traffic load and capacity thresholds were analyzed to determine if the project would significantly impact the Lake Merritt Study area.

Existing Plus Project Impacts and Mitigations

This scenario analyzes the effects of full buildout of the development allowed by the Lake Merritt Station Area Plan, along with roadway reconfigurations that are part of the Plan, on *existing* transportation conditions. This scenario isolates the Plan's impacts by identifying changes in intersection and roadway Level of Service due only to the Project.

Intersection Criteria

This section summarizes the impacts and mitigation on intersections based on Oakland's CEQA traffic load and capacity thresholds in Criteria #1 through #6 in Existing Plus Project Conditions.

Table 3.2-33 summarizes and compares intersection Levels of Service with and without the Project and the resulting Level of Service with implementation of mitigation measures.

The Project would degrade the intersection of Lake Merritt Boulevard and 11th Street (Intersection #14) from LOS A to LOS F and increase the average delay by four or more seconds during the PM peak hour in Existing Plus Project conditions. *(Significant)*

Mitigation Measures

Mitigation Measure TRAN-1: Implement the following measures:

- Optimize signal timing (i.e., changing the amount of green time assigned to each lane of traffic approaching the intersection) for the PM peak hour.

- Coordinate the signal timing changes at this intersection with the adjacent intersections that are in the same signal coordination group.

To implement this measure, the individual project applicant shall submit the following to City of Oakland's Transportation Services Division for review and approval:

- Signal timing plans for the signals in the coordination group.
- Plans, Specifications, and Estimates (PS&E) to modify intersection. All elements shall be designed to City and Caltrans standards in effect at the time of construction and all new or upgraded signals should include these enhancements. All other facilities supporting vehicle travel and alternative modes through the intersection should be brought up to both City standards and Americans with Disabilities Act (ADA) standards (according to Federal and State Access Board guidelines) at the time of construction. Current City Standards call for the elements listed below:
  - 2070L Type Controller with cabinet assembly
  - GPS communications (clock)
  - Accessible pedestrian crosswalks according to Federal and State Access Board guidelines with signals (audible and tactile)
  - Countdown pedestrian head module switch out
  - City standard ADA wheelchair ramps
  - Video detection on existing (or new, if required)
  - Mast arm poles, full actuation (where applicable)
  - Polara push buttons (full actuation)
  - Bicycle detection (full actuation)
  - Pull boxes
  - Signal interconnect and communication with trenching (where applicable), or through (E) conduit (where applicable)- 600 feet maximum
  - Conduit replacement contingency
  - Fiber Switch
  - PTZ Camera (where applicable)
  - Transit Signal Priority (TSP) equipment consistent with other signals along corridor

The individual project applicant shall fund the cost of preparing and implementing the mitigation measures. However, if the City adopts a transportation impact fee program prior to implementation of this mitigation measure, the individual project applicant shall have the option to pay the applicable fee in lieu of implementing this mitigation measure and payment of the fee shall mitigate the impact to less than significant.

After implementation of this measure, the intersection would improve to LOS E (average delay of 72 seconds / vehicle) during the PM peak hour and reduce the impact to a less than significant level. No secondary impacts would result from implementation of this measure.

Significance after Mitigation

Less than Significant

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Table 3.2-33: Existing Plus Project (Mitigated) Intersection Level of Service

No.	Intersection	Existing		Existing + Project				Impact	Proposed Mitigation Measure	Existing + Project (Mitigated)				Significance After Mitigation
		AM Peak	PM Peak	AM Peak		PM Peak				AM Peak		PM Peak		
		LOS	LOS	LOS	Δ Delay[1]	LOS	Δ Delay[1]			LOS	Δ Delay[1]	LOS	Δ Delay[1]	
1	Grand Ave and Broadway	B	C	B	-0.7	D	0.0							
2	20th St. and Harrison St	E	D	E	1.7	D	0.7							
3	19th St and Madison St	A	A	A	0.0	A	0.0							
4	17th St and Madison St	A	A	A	0.1	A	0.5							
5	Madison St. and 14th St	B	C	B	-0.2	C	10.8							
6	Oak St. and 14th St	B	B	B	-1.9	B	-1.0							
7	Madison St. and 13th St	B	B	B	0.2	B	0.9							
8	Oak St. and 13th St	A	B	B	4.2	C	3.2							
9	Lake Merritt Blvd and 13th St	B	D	B	0.0	E	30.2							
10	Brush St and 12th St	E	C	E	20.4	C	0.5							
11	Broadway and 12th St	C	C	C	1.0	C	3.6							
12	Madison St. and 12th St	B	B	B	0.5	C	9.0							
13	Oak St. and 12th St	B	B	B	5.1	B	2.2							
14	Lake Merritt Blvd and 11th St	B	A	B	0.8	**F**	**144.5**	Impact TRAN-1	Mit TRAN-1 Optimize signal timing (green splits)			E	64.2	Less Than Significant
15	1st Ave. & International Blvd	E	B	**F**	**27.5**	B	2.6	Impact TRAN-2	None feasible	**F**	**27.5**			Significant and Unavoidable
16	Lakeshore Ave and 18th St	C	C	C	0.1	C	0.3							
17	Castro St and 11th St	C	C	C	-0.4	C	0.2							
18	Broadway and 11th St	B	C	B	1.7	C	2.0							
19	Madison St. and 11th St	B	B	B	4.0	C	13.1							
20	Madison St. and 10th St	B	A	**F**	**84.0**	B	9.4	Impact TRAN-3	Mit TRAN-3 Optimize signal timing (green splits)	C	4.2			Less Than Significant
21	Oak St. and 10th St	B	A	**F**	**187.1**	C	18.9	Impact TRAN-4	None feasible	**F**	**187.1**			Significant and Unavoidable
22	Webster St. and 9th St	C	C	C	0.8	C	3.8							
23	Madison St. and 9th St	B	A	A	-0.3	A	-0.5							
24	Oak St. and 9th St	A	A	A	-0.5	A	-0.8							
25	Webster St. and 8th St	C	B	B	-0.6	B	0.2							
26	Harrison St. and 8th St	A	B	B	1.5	B	0.3							
27	Jackson St. and 8th St	B	B	B	2.0	B	2.7							
28	Madison St. and 8th St	A	A	A	1.2	B	2.0							
29	Oak St. and 8th St	A	B	B	2.4	B	0.3							
30	Fallon St. and 8th St	A	A	A	0.0	A	0.0							

Table 3.2-33: Existing Plus Project (Mitigated) Intersection Level of Service

No.	*Intersection*	*Existing*		*Existing + Project*				*Impact*	*Proposed Mitigation Measure*	*Existing + Project (Mitigated)*				*Significance After Mitigation*
		AM Peak	*PM Peak*	*AM Peak*		*PM Peak*				*AM Peak*		*PM Peak*		
		LOS	*LOS*	*LOS*	*Δ Delay*[1]	*LOS*	*Δ Delay*[1]			*LOS*	*Δ Delay*[1]	*LOS*	*Δ Delay*[1]	
31	Harrison St. and 7th St	A	A	A	0.8	A	0.4							
32	Jackson St. and 7th St	B	B	**F**	**111.7**	**F**	**107.4**	Impact TRAN-5	Mit TRAN-5 Optimize signal timing (green splits)	D	15.4	C	6.4	Less Than Significant
33	Madison St. and 7th St	B	B	B	1.9	D	33.2							
34	Oak St. and 7th St	B	B	B	0.4	C	5.4							
35	5th Ave. and 7th St/8th St	B	B	B	0.6	B	0.5							
36	Jackson St. and 6th St	B	B	C	7.5	E	48.2							
37	Madison St. and 6th St	A	A	A	1.5	B	8.3							
38	Oak St. and 6th St	B	A	D	41.3	**F**	**146.6**	Impact TRAN-6	None feasible			**F**	**146.6**	Significant and Unavoidable
39	Jackson St. and 5th St	B	C	B	1.3	**F**	**148.8**	Impact TRAN-7	None feasible			**F**	**148.8**	Significant and Unavoidable
40	Madison St. and 5th St	A	B	B	3.5	B	2.0							
41	Oak St. and 5th St	B	D	B	1.0	E	17.0							

Notes: Locations operating at unacceptable levels are shown in **BOLD** and impacted intersections are highlighted.

[1] ΔDelay represents the change in delay (seconds per vehicle) between the with and without Project scenarios. Calculation of delay in over-capacity conditions (i.e. LOS F) is not reliable. Therefore, delay in excess of 80 seconds should not be interpreted as an exact representation of actual delay.

Impact TRAN-2

The Project would degrade the intersection of 1st Avenue and International Boulevard (Intersection #15) from LOS E to LOS F and increase the average delay by four or more seconds during the AM peak hour in Existing Plus Project conditions. ***(Significant and Unavoidable)***

No feasible mitigation measures are available that would mitigate the impacts at this intersection. The Level of Service can be improved by significantly increasing the signal cycle length. However, extending the cycle length would require greater wait time for pedestrians to cross intersections, and therefore be in conflict with City policy concerning pedestrian safety and comfort. Level of Service can also be improved by providing additional automobile travel lanes on the affected roadway segments. However, additional travel lanes would require additional right-of-way, and/or loss of bicycle lanes, medians and/or on-street parking or narrowing of existing sidewalks, and are considered to be infeasible. Signal timing changes would not improve the traffic and load capacity of this intersection. Therefore, the impact would remain significant and unavoidable.

Significance after Mitigation

Significant and Unavoidable

Impact TRAN-3

The Project would degrade the intersection of Madison Street and 10th Street (Intersection #20) from LOS B to LOS F and increases the average delay by four or more seconds during the AM peak hour in Existing Plus Project conditions. (Significant)

Mitigation Measures

Mitigation Measure TRAN-3: Implement the following measures:

- Optimize signal timing (i.e., changing the amount of green time assigned to each lane of traffic approaching the intersection) for the AM peak hour.
- Coordinate this signal timing changes at this intersection with the adjacent intersections that are in the same signal coordination group.

To implement this measure, the individual project applicant shall submit the following to City of Oakland's Transportation Services Division for review and approval:

- Signal timing plans for the signals in the coordination group.
- Plans, Specifications, and Estimates (PS&E) as detailed in Mitigation Measure TRAN-1.

The individual project applicant shall fund the cost of preparing and implementing the mitigation measures. However, if the City adopts a transportation impact fee program prior to implementation of this mitigation measure, the individual project applicant shall have the option to pay the applicable fee in lieu of implementing this mitigation measure and payment of the fee shall mitigate the impact to less than significant.

After implementation of this measure, the intersection would improve to LOS C during the AM peak hour and reduce the impact to a less than significant level. No secondary impacts would result from implementation of this measure.

Significance after Mitigation

Less than Significant

Impact TRAN-4

The Project would degrade the intersection of Oak Street and 10th Street (Intersection #21) from LOS B to LOS F and increases the average delay by four or more seconds during the AM peak hour in Existing Plus Project conditions. ***(Significant and Unavoidable)***

No feasible mitigation measures are available that would mitigate the impacts at this intersection. The Level of Service can be improved by significantly increasing the signal cycle length. However, extending the cycle length would require greater wait time for pedestrians to cross intersections, and therefore be in conflict with City policy concerning pedestrian safety and comfort. Level of Service can also be improved by providing additional automobile travel lanes on the affected roadway segments. However, additional travel lanes would require additional right-of-way, and/or loss of bicycle lanes, medians and/or on-street parking or narrowing of existing sidewalks, and are considered to be infeasible. Signal timing changes would not improve the traffic and load capacity of this intersection. Therefore, the impact would remain significant and unavoidable.

Significance after Mitigation

Significant and Unavoidable

Impact TRAN-5

The Project would degrade the intersection of Jackson Street and 7th Street (Intersection #32) from LOS B to LOS F and increases the average delay by four or more seconds during the AM and PM peak hours in Existing Plus Project conditions. ***(Significant)***

Mitigation Measures

Mitigation Measure TRAN-5: Implement the following measures:

- Optimize signal timing (i.e., changing the amount of green time assigned to each lane of traffic approaching the intersection).
- Coordinate the signal timing changes at this intersection with the adjacent intersections that are in the same signal coordination group.

To implement this measure, the individual project applicant shall submit the following to City of Oakland's Transportation Services Division for review and approval:

- Signal timing plans for the signals in the coordination group.
- Plans, Specifications, and Estimates (PS&E) as detailed in Mitigation Measure TRAN-1.

The individual project applicant shall fund the cost of preparing and implementing the mitigation measures. However, if the City adopts a transportation impact fee program prior to implementation of this mitigation measure, the individual project applicant shall have the option to pay the applicable fee in lieu of implementing this mitigation measure and payment of the fee shall mitigate the impact to less than significant.

After implementation of this measure, the intersection would improve to LOS D during the AM peak hour and LOS C during the PM peak hour and reduces the impact to a less than significant level. No secondary impacts would result from implementation of this measure.

Significance after Mitigation

Less than Significant

Impact TRAN-6

The Project would degrade the intersection of Oak Street and 6th Street (Intersection #38) from LOS A to LOS F and increases the average delay by four or more seconds during the PM peak hour in Existing Plus Project conditions. ***(Significant and Unavoidable)***

No feasible mitigation measures are available that would mitigate the impacts at this intersection. The Level of Service can be improved by significantly increasing the signal cycle length. However, extending the cycle length would require greater wait time for pedestrians to cross intersections, and therefore be in conflict with City policy concerning pedestrian safety and comfort. Level of Service can also be improved by providing additional automobile travel lanes on the affected roadway segments. However, additional travel lanes would require additional right-of-way, and/or loss of bicycle lanes, medians and/or on-street parking or narrowing of existing sidewalks, and are considered to be infeasible. Signal timing changes would not improve the traffic and load capacity of this intersection. Therefore, the impact would remain significant and unavoidable.

Significance after Mitigation

Significant and Unavoidable

Impact TRAN-7

The Project would degrade the intersection of Jackson Street and 5th Street (Intersection #39) from LOS C to LOS F and increases the average delay by four or more seconds during the PM peak hour in Existing Plus Project conditions. ***(Significant and Unavoidable)***

No feasible mitigation measures are available that would mitigate the impacts at this intersection. The Level of Service can be improved by significantly increasing the signal cycle length. However, extending the cycle length would require greater wait time for pedestrians to cross intersections, and therefore be in conflict with City policy concerning pedestrian safety and comfort. Level of Service can also be improved by providing additional automobile travel lanes on the affected roadway segments. However, additional travel lanes would require additional right-of-way, and/or loss of bicycle lanes, medians and/or on-street parking or narrowing of existing sidewalks, and are considered to be infeasible. Signal timing changes would not improve the traffic and load capacity of this intersection. Therefore, the impact would remain significant and unavoidable.

Significance after Mitigation

Significant and Unavoidable

Proposed Policies in the Lake Merritt Station Area Plan that Contribute to Reducing Impacts (Criteria #1 through #6)

The following policies collectively contribute to reducing the proposed Plan's impacts on intersection levels of service. Although these policies are important to the successful implementation of the Lake Merritt Station Area Plan, there is no mechanism to ensure they are implemented in the early stages of development. Since the effects of these policies on traffic Level of Service cannot be ascertained they are listed for informational purposes only and are not considered in the findings of significance.

C-1 **Freeway under-crossings**. Improve the freeway under-crossings for pedestrian safety and comfort by implementing the following improvements between 7th and 5th Streets along Broadway, Webster, Jackson, Madison, and Oak Streets:

- Pedestrian-oriented improvements such as special pedestrian-oriented lighting, murals, or ornamental screening.
- Improving and/or activating the spaces under the freeway.
- Providing improved directional signage for pedestrians, bicyclists, and drivers.

C-10 **Phase I improvements**. Implement Phase I improvements as shown on Figure 6.2, outlined in Table 6.2, and outlined in Section 6.4 of the Lake Merritt Station Area Plan.

C-33 **Transit service improvements**. Work with AC Transit to improve transit service on transit preferential streets through restricted bus lanes on 11th and 12th Streets, transit priority signals and signal timing improvements. Also ensure design of bulbouts do not interfere with bus service; where bulbouts are installed on transit preferential streets design them so that they serve the buses by aiding boarding and exiting.

C-58 **Transportation demand management**. Require new large employers to implement Transportation Demand Management (TDM) measures, and encourage existing employers such as Laney College and Alameda County to implement similar measures, such as:

- Designate a TDM coordinator who would distribute information to employees to promote TDM programs.
- Carpool and vanpool ride-matching services and provision of car sharing parking spaces.
- Guaranteed Ride Home Program, which allows transit users and car/vanpoolers access to free or reduced taxi service to get home in case of an emergency.
- Subsidized transit passes for area employees and/or institute a parking cash-out program.
- Bicycle parking, both short and long term, located near entrances.
- Showers and lockers.

Freeway and Roadway Segment Criteria

This section summarizes the impacts and mitigation of freeway and roadway segments, and on the CMP and MTS networks based on Oakland's CEQA traffic load and capacity thresholds in Criteria #7 and Criteria #8 in Existing Plus Project Conditions

Impact TRAN-8

The Project would degrade from LOS E to LOS F and/or cause an increase in the Volume to Capacity (V/C) ratio of 0.03 or greater in both directions of the I-880 freeway segments between Oak Street and 5th Avenue under Existing Plus Project conditions. ***(Significant and Unavoidable)***

Traffic generated by the Project would increase the volume to capacity ratio (V/C) for the freeway segment on I-880 from 5th Avenue to Oak Street in the northbound and southbound directions. The freeway segment currently exceeds the Congestion Management Program LOS E threshold for freeways and the addition of any traffic will increase its V/C ratio. Therefore, the addition of traffic generated by the development allowed by the Project is considered a significant impact. There are no feasible mitigation measures to improve the LOS on I-880. The impacted freeway segments will operate at LOS F with a V/C greater than 1.00 and even a small amount of traffic can increase the V/C ratio by 0.03. This elevated segment of I-880 is over capacity and the required mitigation to achieve the County's LOS standards (the addition of freeway lanes) would extend the freeway structure and its elevated on and off-ramps over private property and property owned by other municipalities over which Caltrans lacks the right to build. Regardless, the mitigation is within Caltrans' jurisdiction and therefore outside of the City's control. Because the City cannot assure implementation of any mitigation to the freeway, the impact remains significant and unavoidable.

The freeway segment of I-880 from the I-980 interchange to 23rd Street operated at LOS E in 2010, as reported in the *Alameda CTC 2011 Performance Report*.[42] The LOS reported was based on average travel speeds and this measure was 0.2 mph from the LOS F threshold. The findings from the analysis conducted in this EIR are consistent with the findings in the *Alameda CTC 2011 Performance Report*. As shown in the Alameda CMP, there are plans to improve this area with the I-880 / Broadway-Jackson Interchange project.[43] This project entails reconstructing the off-ramp from Northbound I-880 to end at Webster Street, depressing Harrison Street, providing a left-turn lane from Harrison Street to 6th Street, constructing a new Northbound I-880 on-ramp from Market Street and constructing a new southbound I-880 off-ramp to Martin Luther King Jr. Way. However, the project will not be adding additional lanes to the mainline.

Significance after Mitigation

Significant and Unavoidable

Proposed Policies in the Lake Merritt Station Area Plan that Contribute to Reducing Impacts (Criteria #7 and Criteria #8)

The following policies collectively contribute to reducing the Project's impacts on freeway segment levels of service. Although these policies are important to the successful implementation of the Lake Merritt Station Area Plan, there is no mechanism to ensure they are implemented in the early stages of development. Since the effects of these policies on traffic Level of Service cannot be ascertained they are listed for informational purposes only and are not considered in the findings of significance.

[42] Alameda CTC 2011 Performance Report, Alameda CTC, September 2012.

[43] Project Study Report to Request Programming for Capital Outlay Support on Route I-880 Between Oak Street and Union Street and On SR 260 Between 4th Street and 9th Street, Caltrans, March 2011.

C-1 **Multi-modal access on 14th Street**. Improve multi-modal access along 14th Street by enhancing the pedestrian and bicycle environment while continuing to accommodate vehicular travel along the corridor. These improvements will enhance citywide connectivity and activate the northern edge of the Planning Area.

C-7 **Connections to the Eastlake Gateway District**. Improve connections between the Eastlake Gateway District and the rest of the Planning Area by improving connections along 10th Street.

C-46 **Bus access**. Work with BART and AC Transit to make the following enhancements to bus access:

- Move bus stops to improve visibility and operations.
- Improve the bus waiting area comfort and safety.
- Design pedestrian improvements, such as corner bulb-outs, to not conflict with bus operations, and maintain 11-foot travel lanes where AC Transit bus routes exist.
- Where bus layovers exist, parking lanes must be at least 10 feet wide to allow the buses to layover outside of the bike lane.

C-58 **Transportation demand management**. Require new large employers to implement Transportation Demand Management (TDM) measures, and encourage existing employers such as Laney College and Alameda County to implement similar measures, such as:

- Designate a TDM coordinator who would distribute information to employees to promote TDM programs.
- Carpool and vanpool ride-matching services and provision of car sharing parking spaces.
- Guaranteed Ride Home Program, which allows transit users and car/vanpoolers access to free or reduced taxi service to get home in case of an emergency.
- Subsidized transit passes for area employees and/or a parking cash-out program.
- Bicycle parking, both short and long term, located near entrances.
- Showers and lockers.

Interim 2020 Plus Project Impacts and Mitigations

This scenario analyzes the effects of the net change in traffic that would occur from the Lake Merritt Station Area Plan development projected to occur by 2020.

This section summarizes the impacts and mitigation on intersections based on Oakland's CEQA traffic load and capacity thresholds, based on Criteria #1 through #9 in Interim 2020 Plus Project Conditions.

Impact TRAN-9

The Project would degrade the intersection of Brush Street and 12th Street (Intersection #10) from LOS E to LOS F and increase the average delay by four or more seconds during the AM peak hour in Interim 2020 Plus Project conditions. ***(Significant and Unavoidable)***

No feasible mitigation measures are available that would mitigate the impacts at this intersection. The Level of Service can be improved by increasing the signal cycle length. However, extending the cycle

length would require greater wait time for pedestrians to cross intersections, and therefore be in conflict with City policy concerning pedestrian safety and comfort, and at this intersection the cycle length is currently very long (115 seconds). Level of Service can also be improved by providing additional automobile travel lanes on the affected roadway segments. However, additional travel lanes would require additional right-of-way, and/or loss of bicycle lanes, medians and/or on-street parking or narrowing of existing sidewalks, and are considered to be infeasible. Signal timing changes would not improve the traffic and load capacity of this intersection. Therefore, the impact would remain significant and unavoidable.

Significance after Mitigation

Significant and Unavoidable

Impact TRAN-10

The Project would degrade the intersection of Jackson Street and 6th Street (Intersection #36) during the AM peak hour in Interim 2020 Plus Project conditions by increasing the v/c ratio by 0.03 or more; during the PM peak hour in Interim 2020 Plus Project conditions it would degrade the intersection from LOS E to LOS F and increase the average delay by four or more seconds. ***(Significant and Unavoidable)***

Mitigation Measures

Mitigation Measure TRAN-10: Implement the following measures:

- Optimize signal timing (i.e., changing the amount of green time assigned to each lane of traffic approaching the intersection) for the PM peak hour.
- Coordinate the signal timing changes at this intersection with the adjacent intersections that are in the same signal coordination group.

To implement this measure, the individual project applicant shall submit the following to City of Oakland's Transportation Services Division for review and approval:

- Signal timing plans for the signals in the coordination group.
- Plans, Specifications, and Estimates (PS&E) as detailed in TRAN-1

The individual project applicant shall fund the cost of preparing and implementing the mitigation measures. However, if the City adopts a transportation impact fee program prior to implementation of this mitigation measure, the individual project applicant shall have the option to pay the applicable fee in lieu of implementing this mitigation measure and payment of the fee shall be considered the equivalent of implementing the mitigation measure.

The mitigation measure is able to reduce the impact during the PM to a less than significant level. However, there are no feasible mitigation measures that would reduce the impact during the AM hour. Signal optimization during the AM hour would increase delays at the intersection. The Level of Service can be improved in the AM and PM hours by significantly increasing the signal cycle length. However, extending the cycle length would require greater wait time for pedestrians to cross intersections, and therefore be in conflict with City policy concerning pedestrian safety and comfort. Level of Service can also be improved by providing additional automobile travel lanes on the affected roadway segments. However, additional travel lanes would require additional right-of-way, and/or loss of bicycle lanes,

medians and/or on-street parking or narrowing of existing sidewalks, and are considered to be infeasible. Therefore, the impact would remain significant and unavoidable even after implementation of the mitigation measure. No secondary impacts would result from implementation of the measure.

Significance after Mitigation

Significant and Unavoidable

Impact TRAN-11

The Project would degrade the intersection of Oak Street and 6th Street (Intersection #38) from LOS B to LOS F in the AM peak hour and from LOS D to LOS F in the PM peak hour and increases the average delay by four or more seconds during both peak hours in Interim 2020 Plus Project conditions. ***(Significant and Unavoidable)***

Mitigation Measures

Mitigation Measure TRAN-11: Implement the following measures:

- Optimize signal timing (i.e., changing the amount of green time assigned to each lane of traffic approaching the intersection).
- Create an interconnected corridor along Oak Street from 5th to 14th Streets, and coordinate the signal timing changes at this intersection with the coordination group.

To implement this measure, the individual project applicant shall submit the following to City of Oakland's Transportation Services Division for review and approval:

- Signal timing plans for the signals in the coordination group.
- Plans, Specifications, and Estimates (PS&E) as detailed in TRAN-1

The individual project applicant shall fund the cost of preparing and implementing the mitigation measures. However, if the City adopts a transportation impact fee program prior to implementation of this mitigation measure, the individual project applicant shall have the option to pay the applicable fee in lieu of implementing this mitigation measure and payment of the fee shall be considered the equivalent of implementing the mitigation measure, which would still result in significant and unavoidable impact.

After implementation of this measure, the coordination of traffic signals on Oak Street would improve traffic flow for vehicles traveling at a uniform speed. Although the delay is slightly reduced because the intersection would be part of a corridor of coordinated traffic signals, this intersection at Oak Street and 6th Street would still experience high levels of delay, particularly for traffic on the side streets, and impacts remain significant and unavoidable in both the AM and PM peak hour conditions. No secondary impacts would result from implementation of the measure.

Significance after Mitigation

Significant and Unavoidable

Impact TRAN-12

The Project would degrade the intersection of Oak Street and 5th Street (Intersection #41), which is currently operating at LOS F, by increasing the total intersection v/c ratio by 0.03 or more during the PM peak hour in Interim 2020 Plus Project conditions. ***(Significant and Unavoidable)***

Mitigation Measures

Mitigation Measure TRAN-12: Implement Mitigation Measure TRAN-11.

After implementation of this measure, the coordination of traffic signals on Oak Street would improve traffic flow for vehicles traveling at a uniform speed. The intent of this mitigation measure is to improve or maintain the traffic load and capacity of all the intersections along the interconnected Oak Street corridor. The traffic model shows a slight increase in seconds of delay after implementation of the mitigation measure, however V/C ratios (overall and critical), a more reliable evaluation of traffic load and capacity, remain the same. Even after implementation of the mitigation measure, the intersection of Oak Street and 5th Street would still experience high levels of delay, particularly for traffic on the side streets, and impacts remain significant and unavoidable. No secondary impacts would result from implementation of the measure.

Significance after Mitigation

Significant and Unavoidable

Proposed Policies in the Lake Merritt Station Area Plan that Contribute to Reducing Impacts to Less than Significant (Criteria #1 through #6)

The policies included in the Plan referenced under **Impacts TRAN-1 through TRAN-7** collectively contribute to reducing the Project's impacts on intersection levels of service.

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Table 3.2-34: Interim 2020 Plus Project (Mitigated) Intersection Level of Service

No.	Intersection	Interim 2020		Interim 2020 + Project				Impact	Proposed Mitigation Measure	Interim 2020 + Project (Mitigated)				Significance After Mitigation
		AM Peak	PM Peak	AM Peak		PM Peak				AM Peak		PM Peak		
		LOS	LOS	LOS	Δ Delay[1]	LOS	Δ Delay[1]			LOS	Δ Delay[1]	LOS	Δ Delay[1]	
1	Grand Ave and Broadway	B	**F**	B	0.3	F	-0.2 ΔV/C=0.01 ΔCritical V/C=0							
2	20th St. and Harrison St	C	C	C	0.0	C	-0.4							
3	19th St and Madison St	B	A	B	0.1	A	0.4							
4	17th St and Madison St	A	A	A	0.3	B	0.7							
5	Madison St. and 14th St	B	B	B	0.9	C	5.9							
6	Oak St. and 14th St	**F**	**F**	F	-0.5 ΔV/C=0.02 ΔCritical V/C=0.01	F	5.4 ΔV/C=0.01 ΔCritical V/C=0.02							
7	Madison St. and 13th St	B	B	B	1.0	B	3.1							
8	Oak St. and 13th St	B	B	A	-0.9	C	7.1							
9	Lake Merritt Blvd and 13th St	B	B	B	0.7	B	1.1							
10	Brush St and 12th St	E	C	**F**	**9.3**	C	0.4	Impact TRAN-9	None feasible	**F**	**9.3**			Significant and Unavoidable
11	Broadway and 12th St	B	C	B	0.8	C	0.8							
12	Madison St. and 12th St	B	B	B	-0.4	B	1.9							
13	Oak St. and 12th St	B	B	B	1.5	B	1.0							
14	Lake Merritt Blvd and 11th St	B	C	B	0.5	C	1.9							
15	1st Ave. / International Blvd	B	C	B	1.1	C	3.5							
16	Lakeshore Ave and 18th St	B	B	B	0.1	B	0.2							
17	Castro St and 11th St	C	C	C	-0.2	C	0.0							
18	Broadway and 11th St	B	B	B	0.3	B	0.3							
19	Madison St. and 11th St	B	B	B	1.0	C	13.3							
20	Madison St. and 10th St	A	B	B	1.4	C	5.3							
21	Oak St. and 10th St	A	A	E	70.4	C	15.0							
22	Webster St. and 9th St	C	C	C	0.2	C	1.2							
23	Madison St. and 9th St	A	A	A	0.9	A	1.2							
24	Oak St. and 9th St	A	A	A	0.1	A	-0.8							
25	Webster St. and 8th St	D	C	D	0.2	C	0.0							
26	Harrison St. and 8th St	B	B	B	5.9	B	0.6							
27	Jackson St. and 8th St	B	B	C	7.0	B	2.8							
28	Madison St. and 8th St	B	B	B	2.2	B	-0.6							
29	Oak St. and 8th St	B	B	D	32.4	B	2.9							
30	Fallon St. and 8th St	A	A	A	0.0	A	0.0							
31	Harrison St. and 7th St	A	A	A	0.2	A	0.1							
32	Jackson St. and 7th St	B	B	C	3.5	B	1.3							
33	Madison St. and 7th St	B	C	B	-2.3	C	1.2							
34	Oak St. and 7th St	B	C	B	-0.1	C	4.2							

Table 3.2-34: Interim 2020 Plus Project (Mitigated) Intersection Level of Service

No.	Intersection	Interim 2020		Interim 2020 + Project				Impact	Proposed Mitigation Measure	Interim 2020 + Project (Mitigated)				Significance After Mitigation
		AM Peak	PM Peak	AM Peak		PM Peak				AM Peak		PM Peak		
		LOS	LOS	LOS	Δ Delay[1]	LOS	Δ Delay[1]			LOS	Δ Delay[1]	LOS	Δ Delay[1]	
35	5th Ave. and 7th St/8th St	C	C	C	0.3	C	0.3							
36	Jackson St. and 6th St	**F**	E	**F**	2.6 **ΔV/C=0.04** **ΔCritical V/C=0.04**	**F**	22.5	Impact TRAN-10	Mit TRAN-10: AM-None feasible PM-Optimize signal timing (green splits)	**F**	2.6 **ΔV/C=0.04** **ΔCritical V/C=0.04**	E	22.0	Significant and Unavoidable
37	Madison St. and 6th St	A	A	B	4.1	A	2.4							
38	Oak St. and 6th St	B	D	**F**	**96.8**	**F**	**345.7**	Impact TRAN-11	Mit TRAN-11: Optimize signal timing (green splits); interconnect signals on Oak Street	**F**	**95.7**	**F**	**344.5**	Significant and Unavoidable
39	Jackson St. and 5th St	B	C	B	-0.2	E	35.7							
40	Madison St. and 5th St	A	B	B	2.4	B	2.9							
41	Oak St. and 5th St	D	**F**	D	6.3	**F**	**3.7** **ΔV/C=0.06** **ΔCritical V/C=0.05**	Impact TRAN-12	Mit TRAN-12: Implement Mit TRAN-11			**F**	**3.8*** **ΔV/C=0.06** **ΔCritical V/C=0.05**	Significant and Unavoidable

Notes: Locations operating at unacceptable levels are shown in **BOLD** and impacted intersections are highlighted.

[1] ΔDelay represents the change in delay (seconds per vehicle) between the with and without Project scenarios. Calculation of delay in over-capacity conditions (i.e. LOS F) is not reliable. Therefore, delay in excess of 80 seconds should not be interpreted as an exact representation of actual delay. Change in V/C (volume to capacity ratios) are also provided, as an additional measure of congestion given the unreliability of delay in comparing intersections operating at LOS F.

* In some instances, the model outputs show slight increases in delay after mitigation for intersections operating at LOS F, but the V/C, another measure of congestion, remains the same. These instances are related to the mitigation measures that call for the interconnect of the Oak Street corridor. The intent of these mitigation measures is to improve or maintain the traffic load and capacity of all the intersections along the interconnected corridor.

Cumulative 2035 Plus Project Impacts and Mitigations

The Cumulative 2035 Plus Project scenario analyzes the effects (for Significance Criteria #1 through #9) of full buildout of the development allowed in the Lake Merritt Station Area Plan under Cumulative 2035 conditions.

Intersection Criteria

This section summarizes the impacts and mitigation on intersections based on Criteria #1 through #6 in Existing Plus Project Conditions.

Table 3.2-35 summarizes and compares intersection Levels of Service with and without the Project and the resulting Level of Service with implementation of mitigation measures.

Impact TRAN-13

The Project would degrade the V/C ratio by 0.03 or more at the intersection of Grand Avenue and Broadway (Intersection #1) operating at LOS F in the PM peak hour in Cumulative 2035 Plus Project Conditions. *(Significant)*

Mitigation Measures

Mitigation Measure TRAN-13: Implement the following measures:

- Provide permitted-protected left-turn phasing for the northbound and southbound approaches.
- Optimize signal timing (i.e., changing the amount of green time assigned to each lane of traffic approaching the intersection).
- Coordinate the signal timing changes at this intersection with the adjacent intersections that are in the same signal coordination group.

To implement this measure, the individual project applicant shall submit the following to City of Oakland's Transportation Services Division for review and approval:

- Plans, Specifications, and Estimates (PS&E) to modify intersection as detailed in Mitigation Measure TRAN-1.
- Signal timing plans for the signals in the coordination group.

The individual project applicant shall fund the cost of preparing and implementing these plans. However, if the City adopts a transportation impact fee program prior to implementation of this mitigation measure, the individual project applicant shall have the option to pay the applicable fee in lieu of implementing this mitigation measure and payment of the fee shall mitigate the impact to a less than significant level.

After implementation of this measure, the intersection would continue to operate at LOS F during the PM peak hour, but the V/C ratio is reduced compared to the No-Project condition. Therefore, the impact would be mitigated to a less than significant level. No other secondary impacts would result from implementation of this measure.

Significance after Mitigation

Less than Significant

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Table 3.2-35: Cumulative 2035 Plus Project (Mitigated) Intersection Level of Service

No.	*Intersection*	*Cumulative 2035*		*Cumulative 2035 + Project*				*Impact*	*Proposed Mitigation Measure*	*Cumulative 2035 + Project (Mitigated)*				*Significance After Mitigation*
		AM Peak	*PM Peak*	*AM Peak*		*PM Peak*				*AM Peak*		*PM Peak*		
		LOS	*LOS*	*LOS*	*Δ Delay*	*LOS*	*Δ Delay*			*LOS*	*Δ Delay*	*LOS*	*Δ Delay*	
1	Grand Ave / Broadway	D	**F**	D	0.0	**F**	**0.9 ΔV/C=0.03 ΔCritical V/C=0**	Impact TRAN-13	Mit TRAN-13: Provide permitted-protected left-turn phase for nbound/ sbound approaches; optimize signal timing (green splits)			F	63.7* ΔV/C= -0.41 ΔCritical V/C=0	Less Than Significant
2	20th St. and Harrison	C	C	C	-0.2	C	-0.1							
3	19th St and Madison St	C	D	C	1.3	D	2.8							
4	17th St and Madison St	B	A	B	0.9	B	2.8							
5	Madison and 14th St	D	C	D	-3.4	**F**	**61.5**	Impact TRAN-14	Mit TRAN-14 Optimize signal timing (green splits); interconnect signals on Madison Street			**F**	**56.6**	Significant and Unavoidable
6	Oak St. and 14th St	**F**	**F**	**F**	-0.8 ΔV/C=0.01 ΔCritical V/C=0	F	0.2 ΔV/C=0.02 ΔCritical V/C=0.02							
7	Madison and 13th St	B	B	B	0.8	C	7.7							
8	Oak St. and 13th St	B	B	B	-1.9	B	2.6							
9	Lake Merritt Blvd / 13th	C	B	C	0.8	B	0.2							
10	Brush St and 12th St	**F**	D	**F**	-0.6 ΔV/C=0 ΔCritical V/C=0	D	1.8							
11	Broadway and 12th St	B	C	B	0.1	C	-2.4							
12	Madison St. and 12th St	B	B	B	0.6	B	2.2							
13	Oak St. and 12th St	B	B	B	2.4	B	2.7							
14	Lake Merritt Blvd and 11th St	E	E	E	1.3	E	4.4							
15	1st Ave. / International Blvd	C	D	C	1.5	E	13.1							
16	Lakeshore Ave and 18th St	B	B	B	-0.1	B	-0.1							
17	Castro St and 11th St	C	D	C	0.0	D	0.0							
18	Broadway and 11th St	C	C	C	4.4	C	0.7							
19	Madison St. and 11th St	B	C	B	4.1	**F**	**106.0**	Impact TRAN-15	Mit TRAN-15 Implement TRAN-14			**F**	**103.5**	Significant and Unavoidable
20	Madison St. and 10th St	B	B	**F**	**68.5**	**F**	**136.7**	Impact TRAN-16	Mit TRAN-16 Implement TRAN-14	E	72.8	**F**	**122.6**	Significant and Unavoidable

Table 3.2-35: Cumulative 2035 Plus Project (Mitigated) Intersection Level of Service

No.	Intersection	Cumulative 2035		Cumulative 2035 + Project				Impact	Proposed Mitigation Measure	Cumulative 2035 + Project (Mitigated)				Significance After Mitigation
		AM Peak	PM Peak	AM Peak		PM Peak				AM Peak		PM Peak		
		LOS	LOS	LOS	Δ Delay	LOS	Δ Delay			LOS	Δ Delay	LOS	Δ Delay	
21	Oak St. and 10th St	D	B	**F**	**280.5**	**F**	**223.6**	Impact TRAN-17	Mit TRAN-17 Optimize signal timing (green splits); interconnect signals on Oak Street	**F**	**282.7* (same v/c as plus project unmitigated)**	**F**	**223**	Significant and Unavoidable
22	Webster St. and 9th St	C	**F**	C	-1.1	F	-22.6 ΔV/C=0.05 ΔCritical V/C=-0.06							
23	Madison St. and 9th St	A	A	B	1.6	B	3.9							
24	Oak St. and 9th St	A	A	A	0.1	A	-0.1							
25	Webster St. and 8th St	**F**	**F**	F	6.1 ΔV/C=0 ΔCritical V/C=0	F	18.1 ΔV/C=0.01 ΔCritical V/C=0.03							
26	Harrison St. and 8th St	**F**	B	**F**	**87.0 ΔV/C=0.13 ΔCritical V/C=0.36**	E	39.7	Impact TRAN-18	None Feasible	**F**	**87.0 ΔV/C=0.13 ΔCritical V/C=0.36**			Significant and Unavoidable
27	Jackson St. and 8th St	**F**	**F**	**F**	**125.2 ΔV/C=0.48 ΔCritical V/C=0.45**	**F**	**26.5 ΔV/C=0.19 ΔCritical V/C=0.08**	Impact TRAN-19	Mit TRAN-19 AM:Optimize signal timing (green splits) PM:None feasible	**F**	**1.2 ΔV/C=0.2 ΔCritical V/C=0.02**	**F**	**26.5 ΔV/C=0.19 ΔCritical V/C=0.08**	Significant and Unavoidable
28	Madison St. and 8th St	B	B	D	34.1	E	59.1							
29	Oak St. and 8th St	**F**	D	**F**	**132.3 ΔV/C=0.27 ΔCritical V/C=0.43**	**F**	**117.9**	Impact TRAN-20	Mit TRAN-20 Implement TRAN-17	**F**	**137.0* ΔV/C=0.27 ΔCritical V/C=0.43**	**F**	**116.1**	Significant and Unavoidable
30	Fallon St. and 8th St	A	A	A	0.0	A	0.0							
31	Harrison St. and 7th St	B	B	B	-0.3	B	-0.1							
32	Jackson St. and 7th St	C	**F**	C	2.2	**F**	**45.7 ΔV/C=0.27 ΔCritical V/C=0.46**	Impact TRAN-21	None Feasible			**F**	**140.7 ΔV/C=0.08 ΔCritical V/C=0.11**	Significant and Unavoidable
33	Madison St. and 7th St	B	C	B	0.3	E	28.6							
34	Oak St. and 7th St	B	E	C	17.2	**F**	**41.4**	Impact TRAN-22	Mit TRAN-22 Implement TRAN-17			**F**	**31.8**	Significant and Unavoidable
35	5th Ave. and 7th St/8th St	**F**	**F**	**F**	**7.6 ΔV/C=0.09 ΔCritical V/C=0.06**	**F**	**13.7 ΔV/C=0.12 ΔCritical V/C=0.21**	Impact TRAN-23	None Feasible	**F**	**7.6 ΔV/C=0.09 ΔCritical V/C=0.06**	**F**	**13.7 ΔV/C=0.12 ΔCritical V/C=0.21**	Significant and Unavoidable

Table 3.2-35: Cumulative 2035 Plus Project (Mitigated) Intersection Level of Service

No.	Intersection	Cumulative 2035		Cumulative 2035 + Project				Impact	Proposed Mitigation Measure	Cumulative 2035 + Project (Mitigated)				Significance After Mitigation
		AM Peak	PM Peak	AM Peak		PM Peak				AM Peak		PM Peak		
		LOS	LOS	LOS	Δ Delay	LOS	Δ Delay			LOS	Δ Delay	LOS	Δ Delay	
36	Jackson St. and 6th St	**F**	**F**	**F**	**30.3 ΔV/C=0.04 ΔCritical V/C=0.14**	**F**	**29.7 ΔV/C=0.05 ΔCritical V/C=0.2**	Impact TRAN-24	None Feasible	**F**	**30.3 ΔV/C=0.04 ΔCritical V/C=0.14**	**F**	**29.7 ΔV/C=0.05 ΔCritical V/C=0.2**	Significant and Unavoidable
37	Madison St. and 6th St	B	A	D	29.5	E	64.5							
38	Oak St. and 6th St	D	E	**F**	**343.5**	**F**	**384.8**	Impact TRAN-25	Mit TRAN-25 Implement TRAN-17	**F**	**394.5*** (same v/c as plus project unmitigated)	**F**	**385.4*** (same v/c as plus project unmitigated)	Significant and Unavoidable
39	Jackson St. and 5th St	D	**F**	E	15.6	**F**	**-23.2 ΔV/C=0.44 ΔCritical V/C=-0.87**							
40	Madison St. and 5th St	B	B	B	5.8	E	51.9							
41	Oak St. and 5th St	**F**	**F**	**F**	**25.1 ΔV/C=0.09 ΔCritical V/C=0.15**	**F**	**25.0 ΔV/C=0.11 ΔCritical V/C=0.16**	Impact TRAN-26	Mit TRAN-26 Implement TRAN-17	F	25* **ΔV/C=0.09 ΔCritical V/C=0.15**	**F**	25.5* **ΔV/C=0.11 ΔCritical V/C=0.16**	Significant and Unavoidable

Notes: Locations operating at unacceptable levels are shown in **BOLD** and impacted intersections are highlighted.

[1] ΔDelay represents the change in delay (seconds per vehicle) between the with and without Project scenarios. Calculation of delay in over-capacity conditions (i.e. LOS F) is not reliable. Therefore, delay in excess of 80 seconds should not be interpreted as an exact representation of actual delay. Change in V/C (volume to capacity ratios) are also provided, as an additional measure of congestion given the unreliability of delay in comparing intersections operating at LOS F.

* In some instances, the model outputs shows increases in delay after mitigation for intersections operating at LOS F, but the V/C, another measure of congestion, remains the same or improves.

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Impact TRAN-14

The Project would degrade the intersection of Madison Street and 14th Street (Intersection #5) from LOS C to LOS F and increases the average delay by four or more seconds during the PM peak hour in the Cumulative 2035 Plus Project Conditions. ***(Significant and Unavoidable)***

Mitigation Measures

Mitigation Measure TRAN-14: Implement the following measures:

- Optimize the signal timing (i.e., changing the amount of green time assigned to each lane of traffic approaching the intersection).
- Create an interconnected corridor along Madison Street from 5th to 14th Streets, and coordinate the signal timing changes at this intersection with the coordination group.

To implement this measure, the individual project applicant shall submit the following to City of Oakland's Transportation Services Division for review and approval:

- Plans, Specifications and Estimates (PS&E) to modify intersection as detailed in Mitigation Measure TRAN-1.
- Signal timing plans for the signals in the coordination group.

The individual project applicant shall fund the cost of preparing and implementing these plans. However, if the City adopts a transportation impact fee program prior to implementation of this mitigation measure, the individual project applicant shall have the option to pay the applicable fee in lieu of implementing this mitigation measure and payment of the fee shall be considered the equivalent of implementing the mitigation measure, which would still result in significant and unavoidable impact.

After implementation of this measure, the coordination of traffic signals on Madison Street would improve traffic flow for vehicles traveling at a uniform speed. Although the delay is slightly reduced because the intersection would be part of a corridor of coordinated traffic signals, this intersection would still experience high levels of delay, particularly for traffic on the side streets, and impacts remain significant and unavoidable in the PM peak hour conditions. No secondary impacts would result from implementation of the measure.

Traffic operations at the intersection can be further improved by providing additional automobile travel lanes. However, these modifications cannot be accommodated within the existing automobile right-of-way and would require additional right-of-way, and/or loss of on-street parking, and are considered to be infeasible.

Significance after Mitigation

Significant and Unavoidable.

Impact TRAN-15

The Project would degrade the intersection of Madison Street and 11th Street (Intersection #19) from LOS C to LOS F and increases the average delay by four or more seconds during the PM peak hour under Cumulative 2035 Plus Project conditions. ***(Significant and Unavoidable)***

Mitigation Measures

Mitigation Measure TRAN-15: Implement TRAN-14

After implementation of this measure, the coordination of traffic signals on Madison Street would improve traffic flow for vehicles traveling at a uniform speed. Although the delay is slightly reduced because the intersection would be part of a corridor of coordinated traffic signals, this intersection would still experience high levels of delay, particularly for traffic on the side streets, and impacts remain significant and unavoidable in the PM peak hour conditions. No secondary impacts would result from implementation of the measure.

Traffic operations at the intersection can be further improved by providing additional automobile travel lanes. However, these modifications cannot be accommodated within the existing automobile right-of-way and would require additional right-of-way, and/or loss of on-street parking, and are considered to be infeasible.

Significance after Mitigation

Significant and Unavoidable.

Impact TRAN-16

The Project would degrade the intersection of Madison Street and 10th Street (Intersection #20) from LOS B to LOS F and increases the average delay by four or more seconds during the AM and PM peak hours under Cumulative 2035 Plus Project conditions. ***(Significant and Unavoidable)***

Mitigation Measures

Mitigation Measure TRAN-16: Implement Mit TRAN-14

After implementation of this measure, the coordination of traffic signals on Madison Street would improve traffic flow for vehicles traveling at a uniform speed. During the AM peak hour, the mitigation reduces the impact to a less than significant level. However, during the PM peak hours, although the delay is slightly reduced because the intersection would be part of a corridor of coordinated traffic signals, the intersection would still experience high levels of delay, particularly for traffic on the side streets, and impacts remain significant and unavoidable in the PM peak hour conditions. No secondary impacts would result from implementation of the measure.

Traffic operations at the intersection can be further improved by providing additional automobile travel lanes. However, these modifications cannot be accommodated within the existing automobile right-of-way and would require additional right-of-way, and/or loss of on-street parking, and are considered to be infeasible.

Significance after Mitigation

Significant and Unavoidable.

Impact TRAN-17

The Project would degrade the intersection of Oak Street and 10th Street (Intersection #21) from LOS D to LOS F during the AM peak hour and from LOS B to LOS F during the PM peak hour, and increases the average delay by four or more seconds during the AM and PM peak hours under Cumulative 2035 Plus Project conditions. ***(Significant and Unavoidable)***

Mitigation Measures

Mitigation Measure TRAN-17: Implement the following measures:

- Optimize the signal timing (i.e., changing the amount of green time assigned to each lane of traffic approaching the intersection)
- Coordinate the signal timing changes at this intersection with the adjacent intersections that are in the same signal coordination group within the Oak Street interconnect corridor (5^{th} to 14^{th} Streets).

To implement this measure, the individual project applicant shall submit the following to City of Oakland's Transportation Services Division for review and approval:

- Plans, Specifications, and Estimates (PS&E) to modify intersection as detailed in Mitigation Measure TRAN-1.
- Signal timing plans for the signals in the coordination group.

The individual project applicant shall fund the cost of preparing and implementing these plans. However, if the City adopts a transportation impact fee program prior to implementation of this mitigation measure, the individual project applicant shall have the option to pay the applicable fee in lieu of implementing this mitigation measure and payment of the fee shall be considered the equivalent of implementing the mitigation measure, which would still result in significant and unavoidable impacts

After implementation of this measure, the coordination of traffic signals on Oak Street would improve traffic flow for vehicles traveling at a uniform speed. Although there is an increase in delay (seconds per vehicle) following implementation of the mitigation measure, change in V/C (volume to capacity ratio, a more reliable measure for comparing traffic load and capacity at intersections operating at LOS F) stays the same. Although the V/C remains the same for this intersection, the intent of the mitigation measure is to improve the traffic load and capacity of all the intersections along the interconnected corridor of Oak Street. However, this intersection would still experience high levels of delay, particularly for traffic on the side streets, and impacts remain significant and unavoidable in the AM and PM peak hour conditions. No secondary impacts would result from implementation of the measure.

Traffic operations at the intersection can be further improved by providing additional automobile travel lanes. However, these modifications cannot be accommodated within the existing automobile right-of-way and would require additional right-of-way, and/or loss of on-street parking, and are considered to be infeasible. The Level of Service can also be improved by increasing the signal cycle length. However, extending the cycle length would require greater wait time for pedestrians to cross intersections, and therefore be in conflict with City policy concerning pedestrian safety and comfort.

Significance after Mitigation

Significant and Unavoidable

Impact TRAN-18

The Project would degrade the intersection of Harrison Street and 8^{th} Street (Intersection #26) by increasing the V/C ratio by 0.03 or more during the AM peak hour under Cumulative 2035 Plus Project conditions*. (Significant and Unavoidable)*

No feasible mitigation measures are available that would mitigate the impacts at this intersection. The Level of Service can be improved by increasing the signal cycle length. However, extending the cycle length would require greater wait time for pedestrians to cross intersections, and therefore be in conflict with City policy concerning pedestrian safety and comfort. Level of Service can also be improved by providing additional automobile travel lanes on the affected roadway segments. However, additional travel lanes would require additional right-of-way, and/or loss of bicycle lanes, medians and/or on-street parking or narrowing of existing sidewalks, and are considered to be infeasible. Signal timing changes would not improve the traffic and load capacity of this intersection. Therefore, the impact would remain significant and unavoidable.

Significance after Mitigation

Significant and Unavoidable

Impact TRAN-19

The Project would degrade the intersection of Jackson Street and 8th Street (Intersection #27) by increasing the V/C ratio by 0.03 or more during the AM and PM peak hours under Cumulative 2035 Plus Project conditions. ***(Significant and Unavoidable)***

Mitigation Measures

Mitigation Measure TRAN-19: Implement the following measures:

- Optimize the signal timing (i.e., changing the amount of green time assigned to each lane of traffic approaching the intersection) for the AM peak hour.
- Coordinate the signal timing changes at this intersection with the adjacent intersections.

To implement this measure, the individual project applicant shall submit the following to City of Oakland's Transportation Services Division for review and approval:

- Plans, Specifications, and Estimates (PS&E) to modify intersection as detailed in Mitigation Measure TRAN-1.
- Signal timing plans for the signals in the coordination group.

The individual project applicant shall fund the cost of preparing and implementing these plans. However, if the City adopts a transportation impact fee program prior to implementation of this mitigation measure, the individual project applicant shall have the option to pay the applicable fee in lieu of implementing this mitigation measure and payment of the fee shall be considered the equivalent of implementing the mitigation measure, which would still result in significant and unavoidable impacts

There is no feasible mitigation measure for the PM peak hours. For the AM peak hour, after implementation of this measure, although the delay is slightly reduced, this intersection would still experience high levels of delay. Therefore, impacts remain significant and unavoidable in the AM and PM peak hour conditions. No secondary impacts would result from implementation of the measure.

Traffic operations at the intersection can be further improved by providing additional automobile travel lanes. However, these modifications cannot be accommodated within the existing automobile right-of-way and would require additional right-of-way, and/or loss of on-street parking, and are considered to be infeasible.

Significance after Mitigation

Significant and Unavoidable.

Impact TRAN-20

The Project would degrade the intersection of Oak Street and 8th Street (Intersection #29) during the AM peak hour by increasing the V/C ratio by 0.03 or more, and during the PM peak hour from LOS D to LOS F and increases the average delay by four or more seconds under Cumulative 2035 Plus Project conditions. ***(Significant and Unavoidable)***

Mitigation Measures

Mitigation Measure TRAN-20: Implement Mit TRAN-17

After implementation of this measure, the coordination of traffic signals on Oak Street would improve traffic flow for vehicles traveling at a uniform speed. Although there is an increase in delay (seconds per vehicle) following implementation of the mitigation measure, change in V/C (volume to capacity ratio, an additional measure of congestion given the unreliability of delay in comparing intersections operating at LOS F) stays the same. Although the V/C remains the same for this intersection, the intent of the mitigation measure is to improve the traffic load and capacity of all the intersections along the interconnected corridor of Oak Street. However, this intersection would still experience high levels of delay, particularly for traffic on the side streets, and impacts remain significant and unavoidable in the AM and PM peak hour conditions. No secondary impacts would result from implementation of the measure.

Traffic operations at the intersection can be further improved by providing additional automobile travel lanes. However, these modifications cannot be accommodated within the existing automobile right-of-way and would require additional right-of-way, and/or loss of on-street parking, and are considered to be infeasible. The Level of Service can also be improved by increasing the signal cycle length. However, extending the cycle length would require greater wait time for pedestrians to cross intersections, and therefore be in conflict with City policy concerning pedestrian safety and comfort.

Significance after Mitigation

Significant and Unavoidable

Impact TRAN-21

The Project would degrade the intersection of Jackson Street and 7th Street (Intersection #32) by increasing the V/C ratio by 0.03 or more during the PM peak hour under Cumulative 2035 Plus Project conditions. ***(Significant and Unavoidable)***

No feasible mitigation measures are available that would mitigate the impacts at this intersection. The Level of Service can be improved by increasing the signal cycle length. However, extending the cycle length would require greater wait time for pedestrians to cross intersections, and therefore be in conflict with City policy concerning pedestrian safety and comfort. Level of Service can also be improved by providing additional automobile travel lanes on the affected roadway segments. However, additional travel lanes would require additional right-of-way, and/or loss of bicycle lanes, medians and/or on-street parking or narrowing of existing sidewalks, and are considered to be infeasible. Signal timing changes

would not improve the traffic and load capacity of this intersection. Therefore, the impact would remain significant and unavoidable.

Significance after Mitigation

Significant and Unavoidable

Impact TRAN-22

The Project would degrade the intersection of Oak Street and 7th Street (Intersection #34) from LOS E to LOS F and increases the average delay by four or more seconds during the PM peak hour under Cumulative 2035 Plus Project conditions. ***(Significant and Unavoidable)***

Mitigation Measures

Mitigation Measure TRAN-22: Implement Mit TRAN-17

After implementation of this measure, the coordination of traffic signals on Oak Street would improve traffic flow for vehicles traveling at a uniform speed. Although the delay is slightly reduced because the intersection would be part of a corridor of coordinated traffic signals, this intersection would still experience high levels of delay, particularly for traffic on the side streets, and impacts remain significant and unavoidable in the PM peak hour conditions. No secondary impacts would result from implementation of the measure.

Traffic operations at the intersection can be further improved by providing additional automobile travel lanes. However, these modifications cannot be accommodated within the existing automobile right-of-way and would require additional right-of-way, and/or loss of on-street parking, and are considered to be infeasible.

Significance after Mitigation

Significant and Unavoidable.

Impact TRAN-23

The Project would degrade the intersection of 5th Avenue and 7th Street/8th Street (Intersection #35) by increasing the V/C ratio by 0.03 or more during the AM and PM peak hours under Cumulative 2035 Plus Project conditions. ***(Significant and Unavoidable)***

No feasible mitigation measures are available that would mitigate the impacts at this intersection. The Level of Service can be improved by providing additional automobile travel lanes on the affected roadway segments. However, additional travel lanes would require additional right-of-way, and/or loss of bicycle lanes, medians and/or on-street parking or narrowing of existing sidewalks, and are considered to be infeasible. Signal timing changes would not improve the traffic and load capacity of this intersection. Therefore, the impact would remain significant and unavoidable.

Significance after Mitigation

Significant and Unavoidable

Impact TRAN-24

The Project would degrade the intersection of Jackson Street and 6th Street (Intersection #36) by increasing the V/C ratio by more than 0.03 during the AM and PM peak hours under Cumulative 2035 Plus Project conditions. ***(Significant and Unavoidable)***

No feasible mitigation measures are available that would mitigate the impacts at this intersection. The Level of Service can be improved by providing additional automobile travel lanes on the affected roadway segments. However, additional travel lanes would require additional right-of-way, and/or loss of bicycle lanes, medians and/or on-street parking or narrowing of existing sidewalks, and are considered to be infeasible. Signal timing changes would not improve the traffic and load capacity of this intersection. Therefore, the impact would remain significant and unavoidable.

Significance after Mitigation

Significant and Unavoidable

Impact TRAN-25

The Project would degrade the intersection of Oak Street and 6th Street (Intersection #38) from LOS D/E to LOS F and increases the average delay by four or more seconds during the AM and PM peak hours, respectively, under Cumulative 2035 Plus Project conditions. ***(Significant and Unavoidable)***

Mitigation Measures

Mitigation Measure TRAN-25: Implement Mit TRAN-17

After implementation of this measure, the coordination of traffic signals on Oak Street would improve traffic flow for vehicles traveling at a uniform speed. Although there is an increase in delay (seconds per vehicle) following implementation of the mitigation measure, change in V/C (volume to capacity ratio, an additional measure of congestion given the unreliability of delay in comparing intersections operating at LOS F) stays the same. Although the V/C remains the same for this intersection, the intent of the mitigation measure is to improve the traffic load and capacity of all the intersections along the interconnected corridor of Oak Street. However, this intersection would still experience high levels of delay, particularly for traffic on the side streets, and impacts remain significant and unavoidable in the AM and PM peak hour conditions. No secondary impacts would result from implementation of the measure.

Traffic operations at the intersection can be further improved by providing additional automobile travel lanes. However, these modifications cannot be accommodated within the existing automobile right-of-way and would require additional right-of-way, and/or loss of on-street parking, and are considered to be infeasible. The Level of Service can also be improved by increasing the signal cycle length. However, extending the cycle length would require greater wait time for pedestrians to cross intersections, and therefore be in conflict with City policy concerning pedestrian safety and comfort.

Significance after Mitigation

Significant and Unavoidable

Impact TRAN-26

The Project would degrade the intersection of Oak Street and 5th Street (Intersection #41) by increasing the V/C ratio by more than 0.03 during the AM and PM peak hours under Cumulative 2035 Plus Project conditions. ***(Significant and Unavoidable)***

Mitigation Measures

Mitigation Measure TRAN-26: Implement Mit TRAN-17

After implementation of this measure, the coordination of traffic signals on Oak Street would improve traffic flow for vehicles traveling at a uniform speed. Although there is an increase in delay (seconds per vehicle) following implementation of the mitigation measure, change in V/C (volume to capacity ratio, an additional measure of congestion given the unreliability of delay in comparing intersections operating at LOS F) stays the same. Although the V/C remains the same for this intersection, the intent of the mitigation measure is to improve the traffic load and capacity of all the intersections along the interconnected corridor of Oak Street. However, this intersection would still experience high levels of delay, particularly for traffic on the side streets, and impacts remain significant and unavoidable in the AM and PM peak hour conditions. No secondary impacts would result from implementation of the measure.

Traffic operations at the intersection can be further improved by providing additional automobile travel lanes. However, these modifications cannot be accommodated within the existing automobile right-of-way and would require additional right-of-way, and/or loss of on-street parking, and are considered to be infeasible. The Level of Service can also be improved by increasing the signal cycle length. However, extending the cycle length would require greater wait time for pedestrians to cross intersections, and therefore be in conflict with City policy concerning pedestrian safety and comfort.

Significance after Mitigation:
Significant and Unavoidable

Proposed Policies in the Lake Merritt Station Area Plan that Contribute to Reducing Impacts to Less than Significant (Criteria #1 through #6)

The policies included in the Plan referenced under **Impacts TRAN-1 through TRAN-7** collectively contribute to reducing the Project's impacts on intersection levels of service. Although these policies are important to the successful implementation of the Lake Merritt Station Area Plan, there is no mechanism in place to ensure they are implemented in the early stages of development. Since the effects of these policies on traffic Level of Service cannot be ascertained they are listed for informational purposes only and are not considered in the findings of significance.

Freeway and Road Segment Criteria

This section summarizes the impacts and mitigations based on Criteria #7 and #8, which look at impacts to roadway segments and to regional facilities designated in the County's Congestion Management Program (CMP) and Metropolitan Transportation System (MTS).

Impact TRAN-27

Traffic generated by the Project would affect the Level of Service on the roadway segments under Cumulative 2035 Plus Project conditions. The segment of Oak Street between 2nd Street and Embarcadero exceeds the standard of LOS E in the PM peak hour. ***(Significant and Unavoidable)***

This segment of Oak Street is a relatively short 350 feet in length. Within this distance there is a mainline railroad crossing (three tracks), on-street parallel parking on both sides of Oak Street north of the railroad, a minor street intersection with Fallon Street just north of the railroad, a raised median with a left turn lane for eastbound left turns onto 2nd Street, lane transitions across the 2nd Street intersection (from one to two westbound and from two to one eastbound), the approach to a sweeping nearly 180-degree curve where Oak Street transitions to the Embarcadero, and the ending and beginning of the Embarcadero bike lanes. Oak Street has a cross-section of approximately 80-feet in this segment. East of 2nd Street, Oak Street is consistently a two-lane cross-section.

The City would like to modify this segment from four lanes to two lanes for several reasons: 1) improve the safety of the railroad crossing with better sight distance, 2) provide additional width to implement Class II bike lanes in each direction consistent with the Bicycle Master Plan, and 3) eliminate the lane transition through the 2nd Street intersection. With all of the complexities facing this segment there isn't any feasible mitigation for the elimination of two lanes. Therefore, the impact would remain significant and unavoidable. However, the impact should be weighed against the benefits, keeping in mind that the lane reduction only changes the location of where it currently happens (at the 2nd Street intersection) by 350 feet while creating space for bike lanes and a more orderly railroad crossing.

Significance after Mitigation

Significant and Unavoidable

Proposed Policies in the Lake Merritt Station Area Plan that Contribute to Reducing Impacts to Less than Significant (Criteria #7 and #8)

The policies included in the Plan referenced under **Impact TRAN-8** collectively contribute to reducing the Project's impacts on intersection levels of service. Although these policies are important to the successful implementation of the Lake Merritt Station Area Plan, there is no mechanism in place to ensure they are implemented in the early stages of development. Since the effects of these policies on traffic Level of Service cannot be ascertained they are listed for informational purposes only and are not considered in the findings of significance.

TRAFFIC SAFETY THRESHOLD IMPACTS (CRITERIA #10 THROUGH #14)

The Oakland CEQA traffic safety thresholds were analyzed to determine if the Project would significantly impact facilities within the Lake Merritt Study area. The thresholds are identified as Thresholds #10 through #14 in the Oakland CEQA guidelines.

New development under the Lake Merritt Station Area Plan would increase the intensity of development in the area and thus increase the amount of pedestrian, bicycle, bus rider, and motorist travel in the area. However, nothing in the Plan would decrease the safety of any of these users.[44]

In fact, the majority of the Plan elements (see below) are intended to enhance the safe travel of roadway users in the Planning Area.

Numerous elements within the Lake Merritt Station Area Plan are intended to enhance road user safety. These include:

- Improving lighting and pedestrian crossings.
- Improved bicycle and pedestrian connections.
- Reducing pedestrian exposure to collisions by reducing street crossing width (e.g., pedestrian bulbouts, reduced number of vehicle travel lanes, reduced travel lane width).
- Upgrading traffic signals, adding advance pedestrian 'WALK' phases and pedestrian 'scramble' phase.
- New striped bicycle lanes on streets.
- Part-time vehicle turn prohibitions.
- Enhanced curb management to provide safe locations for loading passengers and goods (merchandise).

Transportation Hazards *(Criteria #10)*

The following Plan policies collectively contribute to ensuring the development would not adversely affect the safety for all street users:

C-2 **Pedestrian access in the Chinatown core.** Improve access to the Chinatown core by all modes, and in particular improve the pedestrian experience and safety by implementing pedestrian-oriented lighting and improving pedestrian crossings at key intersections.

C-6 **Freeway under-crossings.** Improve the freeway under-crossings for pedestrian safety and comfort by implementing the following improvements between 7th and 5th Streets along Broadway, Webster, Jackson, Madison, and Oak Streets:

- Pedestrian-oriented improvements such as special pedestrian-oriented lighting, murals, or ornamental screening.
- Improving and/or activating the spaces under the freeway.
- Providing improved directional signage for pedestrians, bicyclists, and drivers.

C-9 **Laney College connections and access.** Promote movement through and throughout the Laney College campus, connecting the neighborhood to the Lake Merritt Channel, OUSD's Downtown Educational Complex, the planned Oak to 9th development, BART, the East Lake Gateway, Lake Merritt open space, and the Bay Trail.

- Work with Laney College to develop a wayfinding system that links the college to the community and to BART.

[44] The location or design element of individual future development under the Plan are not known at this time. Thus, it is not feasible to determine how a specific individual development would adversely affect traffic safety.

- Place signs and other devices to show a walking route from Fallon, through the college campus, and down to the water's edge.
- Improve streetscape quality and intersection safety to make connections more pedestrian friendly. Focus on enhancing the east-west connections provided by 7th and 10th Streets east of Fallon Street, and calm traffic on 7th Street east of Fallon Street to link Laney College's properties. Improvements include:
  - Reduced turn lane and widened median on 7th Street approaching Fallon Street.
  - Bike lanes on 7th Street east of Fallon Street.
  - Priority intersection improvements on 7th at four locations: at Fallon Street, at the Laney College 7th Street entrance, at the Lake Merritt Channel, and to connect the athletic fields and Peralta Administration site.
  - Priority intersection improvements on 10th at two locations on either side of the Kaiser Auditorium.
  - Mid-block crossings may warrant flashing pedestrian crossing lights.

C-16 **Pedestrian safety.** Prioritize pedestrian improvements and traffic calming near locations where the safety of youth and elders would be most enhanced. These locations would include Lincoln Recreation Center, Chinese Garden Park, the OUSD Downtown Educational Center, and Madison Square Park.

C-18 **"Scramble system."** Install a four-way crosswalk or "scramble system" at the following intersections to expand on the successful system that exists in the Chinatown Core:

- 10th and Webster streets.
- 8th and Harrison Streets.
- 9th and Harrison Streets.

C-19 **Corner "bulb-outs."** Provide corner "bulb-outs" and curb extensions. Prioritize bulbouts at key intersections identified in Figure 6.9.

C-20 **Vehicle "stop lines."** Paint/re-paint vehicle "stop lines" at least five feet back from crosswalks as intersection improvements are completed, to reduce vehicle intrusions into pedestrian crossing areas.

C-21 **Traffic signals and timing coordination.** Coordinate traffic signals and timing to calm traffic and improve the pedestrian experience throughout the Planning Area:

- Provide pedestrian "count down" timers, where not already installed (the City already has a policy to install them gradually).
- Increase the pedestrian crossing times at intersections, to provide additional crossing times as required in 2010 California Manual of Uniform Traffic Control Devices. Within one block of senior centers, daycare and recreation centers, provide "press and hold" pushbuttons at signals that allow pedestrians to request a longer crossing time (this would require new traffic signal control equipment and programming).

- Coordinate traffic signals so vehicle speeds are 25 mph or less.
- Keep signal cycle lengths—the time needed to repeat a series of green/yellow/red signals—as short as possible, in order to minimize waiting times for signals and minimize crossing against the red.
- Provide a leading "WALK" interval prior to the display of a green light to vehicles, so that pedestrians may safely begin crossing a street before vehicles start making turning movements.

C-22 **Part-time turn prohibitions.** Use part-time turn prohibitions where there are significant pedestrian/vehicle conflicts due to turning movements. For example, right turns on red could be prohibited near Lincoln Elementary school during school hours.

C-23 **Traffic signal at 7th and Alice.** Study the implementation of a traffic signal at 7th and Alice Streets to slow traffic and provide safe crossings of streets. If a traffic signal is not warranted, install pedestrian flashing yellow lights embedded in the roadway that can be activated by pedestrians waiting to cross.

C-24 **Mid-block pedestrian crossings.** Add mid-block pedestrian crossings at three locations along 7th Street, between Fallon Street and 5th Avenue, and two locations along 10th Street, east of Fallon Street, to improve pedestrian access to Laney College and parks. These crossings will have striping and signage, and are recommended to be accompanied by:

- Flashing yellow lights embedded in the roadway if feasible, that can be activated by pedestrians waiting to cross; or
- Full traffic lights requiring traffic to stop.

C-30 **Bike lanes and routes.** Implement the policies and improvements of the City's Bicycle Master Plan in the Planning Area, with the adjustment of replacing Class 2 bike lanes with Class 3A marked routes, using sharrows, within the Chinatown commercial core. New improvements in the Lake Merritt Station Area Plan, as shown on Figure 6.6, include the following:

- Class 2 bike lanes on:
  - Oak and Madison Streets.
  - 8th and 9th Streets outside of the Chinatown core (east of Harrison Street).
  - Webster and Franklin Streets north of 8th Street.
  - 10th Street east of Madison Street.
- Class 3A bike routes (sharrows) on:
  - 8th and 9th Streets in the Chinatown core (west of Harrison Street).
  - 14th Street.

C-34 **Parallel on-street parking.** Maintain parallel on-street parking along transit preferential streets and do not convert it to diagonal parking.

C-52 **Improve safety of transit access at Laney College.** Reduce the parking demand generated by Laney College students by improving the safety of transit access, particularly at night, and working with BART and AC Transit to ensure that routes and schedules serving Laney College meet student needs.

Pedestrian Safety *(Criteria #11)*

New development under the Lake Merritt Station Area Plan would increase the intensity of development in the area and thus increase the amount of pedestrian travel in the area. None of the threshold actions listed under the Oakland's Threshold #11 (removal of existing refuge islands, increase of street crossing distance, etc.) are proposed in the Plan.

See policies listed under **"Transportation Hazards"**. Those, plus the additional policies listed below contribute to ensuring pedestrian safety:

C-1 **Multi-modal access on 14th Street**. Improve multi-modal access along 14th Street by enhancing the pedestrian and bicycle environment while continuing to accommodate vehicular travel along the corridor. These improvements will enhance citywide connectivity and activate the northern edge of the Planning Area.

C-5 **Clear connections to BART.** Establish clear connections to and from the Lake Merritt Bart Station with Chinatown, Laney, Jack London District, and Lake Merritt. Ensure connections are multi-modal, with a focus on pedestrian-oriented amenities, such as lighting.

C-17 **Streetscape improvements for safety and character.** Implement streetscape improvements throughout the Planning Area as outlined in Figure 6.9 in order to improve safety and help provide a unique character for the area.

- Implement new pedestrian-oriented lighting on identified priority lighting corridors.
- Implement intersection improvements at key intersections identified in Figure 6.9.
- Implement "festival streets" on a low-traffic street near the Lake Merritt Bart Station and key community destinations.
- Incorporate way-finding signage, and cultural markers throughout the Planning Area on key streets.

C-25 **Pedestrian-scaled lighting**. Add or enhance pedestrian-scaled lighting, as shown on Figure 6.9 at the following locations:

- On key streets, as shown in Figure 6.9, covering segments of 14th, 9th, 8th, Webster, Harrison, Alice, Jackson, Madison, and Oak Streets.
- Around the Lake Merritt Bart Station.
- Under the I-880 Freeway along pedestrian under-crossings.

C-43 **Pedestrian-oriented lighting at the Lake Merritt Bart Station**. Improve lighting for pedestrians at the Lake Merritt Bart Station, in particular at bus waiting areas on Oak Street, 8th Street, and 9th Street.

C-44 I-880 Freeway undercrossings. Provide enhanced pedestrian signage and lighting under the I-880 Freeway to better connect the Lake Merritt Bart Station and the AMTRAK Jack London station at 2nd and Alice Streets.

Bicyclist Safety *(Criteria #12)*

New development under the Lake Merritt Station Area Plan would increase the intensity of development in the area and thus increase the amount of bicycle travel in the area. Bicycle improvements have been proposed as a part of the Lake Merritt Station Area Plan. These improvements include Class 1 bicycle paths, Class 2 bicycle lanes, Class 3A arterial bicycle routes, and Class 3B bicycle boulevards on the existing street network. The Oakland's *Bicycle Master Plan*[45] is the governing planning documents for bicycle facilities in the downtown area.

The plan identifies improved bicycle facilities on 8th Street, 9th Street, Franklin Street, Webster Street, Madison Street, Oak Street, Lakeside Drive, Tenth Street, 14th Street, and in the Chinatown commercial core. Bicycle racks and lockers will be provided at the Lake Merritt Bart Station to promote bicycle ridership. Additional bicycle facilities, such as bicycle lanes, would encourage additional bicycle trips to travel in and through the Plan area. However, nothing in the Lake Merritt Station Area Plan would decrease the safety of bicyclists per se, and in fact, many plan elements (see below) are intended to enhance the safe travel of cyclists in and through the Planning Area.

See policies listed under **"Transportation Hazards"** and **"Pedestrian Safety"** above. Those, plus the additional policies listed below contribute to ensuring bicyclist safety:

C-30 Bike lanes and routes. Implement the policies and improvements of the City's Bicycle Master Plan in the Planning Area, with the adjustment of replacing Class 2 bike lanes with Class 3A marked routes, using sharrows, within the Chinatown commercial core. New improvements in the Lake Merritt Station Area Plan, as shown on Figure 6.6 of the Plan, include the following:

- Class 2 bike lanes on:
  - Oak and Madison Streets.
  - 8th and 9th Streets outside of the Chinatown core (east of Harrison Street).
  - Webster and Franklin Streets north of 8th Street.
  - 10th Street east of Madison Street.
- Class 3A bike routes (sharrows) on:
  - 8th and 9th Streets in the Chinatown core (west of Harrison Street).
  - 14th Street.

C-31 Bikeway configurations. Evaluate the appropriate bikeway configurations for 8th and 9th Streets in the Chinatown core after street loading and double parking conflicts have been resolved.

See the "Loading and Deliveries" section for policies that address loading and double parking.

[45] *Bicycle Master Plan*, City of Oakland, 2007.

C-45 Bicycle lockers or secure bike parking at the Lake Merritt Bart Station. Work with BART to add bicycle lockers or secure bike parking at the Lake Merritt Bart Station. Provide a bike corral in the station plaza, as near as possible to station entrances, providing around 115 additional bike spaces to meet existing demand and 25 additional spaces by 2035.

Bus Rider Safety (Criteria #13)

New development under the Lake Merritt Station Area Plan would increase the intensity of development in the area and thus increase the number of transit passenger trips traveling to, from, and through the area. The Lake Merritt Station Area Plan promotes increased transit ridership and transit access within the downtown Oakland area. Upgrades to the Lake Merritt Bart Station include increasing intermodal transfers at the station. Improvements to curb management, pedestrian access, bicycle access, shuttles, and bus access serve to promote increased non-auto modes of travel. However, nothing in the Plan would decrease the safety of transit passengers or vehicles and in fact, many Plan elements (see below) are intended to enhance the safe travel of transit passengers and vehicles in and through the Plan area.

See policies listed under **"Transportation Hazards", "Pedestrian Safety",** and **"Bicyclist Safety"** above. Those, plus the additional policies listed below contribute to ensuring bus rider safety:

C-5 Clear connections to BART. Establish clear connections to and from the Lake Merritt Bart Station with Chinatown, Laney, Jack London District, and Lake Merritt. Ensure connections are multi-modal, with a focus on pedestrian-oriented amenities, such as lighting.

C-32 Transit preferential streets. Designate 7th, 8th, 11th, and 12th Streets, Broadway, and the Alameda tube entrance and exit as transit preferential streets.

C-33 Transit service improvements. Work with AC Transit to improve transit service on transit preferential streets through restricted bus lanes on 11th and 12th Streets, transit priority signals and signal timing improvements. Also ensure design of bulbouts do not interfere with bus service; where bulbouts are installed on transit preferential streets design them so that they serve the buses by aiding boarding and exiting.

C-34 Parallel on-street parking. Maintain parallel on-street parking along transit preferential streets and do not convert it to diagonal parking.

C-36 Curb management. Repaint curbs and relocate metered parking adjacent to the Lake Merritt Station to adequately accommodate curbside buses, taxis, and kiss-and-ride locations. Passenger loading zones would reduce the congestion caused by vehicles double-parking and blocking moving traffic lanes and enhance the safety of passengers. This zone could be located on the south side of 9th Street between Oak and Fallon Street.

C-37 Parking spaces for BART police and maintenance staff. Identify designated parking spaces for BART police and maintenance staff near the stairwells/elevator headhouse. Move BART police vehicle parking from the west side of Oak Street to the north side of 8th Street.

C-39 Additional taxi loading zone. Add a second taxi loading zone, if surveys indicate that there is demand after the first taxi zone is in place.

C-43 **Pedestrian-oriented lighting at the Lake Merritt Bart Station**. Improve lighting for pedestrians at the Lake Merritt Bart Station, in particular at bus waiting areas on Oak Street, 8th Street, and 9th Street.

C-45 **Bicycle lockers or secure bike parking at the Lake Merritt Bart Station**. Work with BART to add bicycle lockers or secure bike parking at the Lake Merritt Bart Station. Provide a bike corral in the station plaza, as near as possible to station entrances, providing around 115 additional bike spaces to meet existing demand and 25 additional spaces by 2035.

C-46 **Bus access**. Work with BART and AC Transit to make the following enhancements to bus access:

- Move bus stops to improve visibility and operations.
- Improve the bus waiting area comfort and safety.
- Design pedestrian improvements, such as corner bulb-outs, to not conflict with bus operations.
- Maintain 11-foot travel lanes where AC Transit bus routes exist.
- Where bus layovers exist, parking lanes must be at least 10 feet wide to allow the buses to layover outside of the bike lane.

C-47 **Schedule and operations information**. Work with BART to provide the following information in or at the Lake Merritt Bart Station:

- Provide a NextBus arrival screen at transit passenger waiting area. Include time information on the Alameda shuttle if possible.
- Provide a transit kiosk with detailed information on transit options at the hub, with all information in English and Chinese.
- Provide bilingual instructional signs for BART ticket and change machines.

C-52 **Improve safety of transit access at Laney College**. Reduce the parking demand generated by Laney College students by improving the safety of transit access, particularly at night, and working with BART and AC Transit to ensure that routes and schedules serving Laney College meet student needs.

At-Grade Rail Crossings Safety (Criteria #14)

There are no highway/railroad at-grade crossings within the Planning Area. BART's track ways are underground in Downtown Oakland. Although there is the potential for new development under the proposed Lake Merritt Station Area Plan to increase the number of crossings of at-grade railroad grade crossings, primarily at the nearby crossings of the Embarcadero (First Street) along which UPRR and Amtrak trains run, the number of such trips is very small. This is because it would only occur when trips from the Planning Area have a destination south of the Embarcadero, which is a small area. Further, the City's Standard Conditions of Approval (SCA) G for conditions related to at-grade railroad crossings reduce any impacts to less than significant.

OTHER CEQA IMPACTS (CRITERIA #15 THROUGH #17)

The Oakland CEQA thresholds were analyzed to determine if the project would significantly impact the Lake Merritt Station Area Plan Study area. These other thresholds are identified as Thresholds #15 through #18 in the Oakland CEQA guidelines.

Consistency with Adopted Policies, Plans or Programs Supporting Alternative Transportation (Criteria #15)

Applicable Oakland documents reviewed for this EIR include:

- Land Use and Transportation Element (LUTE) of the General Plan, 1998
- Bicycle Master Plan Update, 2007
- Pedestrian Master Plan, 2002
- Public Transit and Alternative Modes Policy (formerly known as the "Transit First Policy;" City Council Resolution 73036 C.M.S.
- Downtown Transportation and Parking Plan, 2003
- Revive Chinatown Community Transportation Plan, 2004
- Chinatown One-Way Street Conversion Study, 2009

The Lake Merritt Station Area Plan embraces the "transit first" policy in the Land Use and Transportation Element of the General Plan. As described in the policies in the Plan, the overall vision is to increase the use of non-automobile modes of transportation in the Planning Area. Improvements will be focused on pedestrian, bicycle, and transit improvements. The Project is consistent with the Oakland Pedestrian Master Plan and the Oakland Bicycle Master Plan. The Project will not cause a significant impact by conflicting with the abovementioned policies or plans.

The policies collectively support the policies in the City of Oakland's adopted plans and programs and, where possible, implement these policies in whole or in part.

Construction Period Impacts (Criteria #16)

New development would require the construction of both new buildings as well as supporting transportation infrastructure. Examples of the latter include bus 'bulbouts', parking prohibitions (temporary or permanent), lane striping/re-striping, temporary lane closures, and other traffic controls and detours. Construction of buildings or transportation improvements requires the delivery of materials, the import or export of earth fill materials, as well as travel by construction workers on a daily basis to and from sites, potentially disrupting local traffic flow. Such activities are a temporary but unavoidable part of the construction process. This would constitute a temporary significant impact lasting throughout the construction period. However, compliance with SCA-33 would reduce this impact to less than significant.

Changes in Air Traffic Patterns (Criteria #17)

The nearest airport is Oakland International Airport, approximately six miles from the site. The Planning Area is outside the Airport Land Use Master Plan area. The area is too distant from this airport to have any impact on height restrictions.

PEDESTRIAN LEVEL OF SERVICE (CITY OF ALAMEDA CRITERIA)

The City of Alameda impact criteria describes thresholds for Pedestrian Level of Service. For the purposes of analyzing these criteria, this EIR looks to the analysis done in the Alameda Point DEIR.[46]

The Lake Merritt Station Area Plan will generate trips to and from the City of Alameda that will predominantly use the Webster Street and Posey Tubes and pass through the following three intersections in the City of Alameda:

- Constitution Way and Marina Village Parkway
- Webster Street and Atlantic Avenue
- Constitution Way and Atlantic Avenue

Because these three intersections are closest to the Webster Street and Posey Tubes, they would experience the highest number of Project trips from the Planning Area.

Existing Plus Project Conditions

Both the Lake Merritt Station Area Plan Project and the Alameda Point Project generate additional auto trips in Existing Plus Project Conditions. At the intersections of Webster Street and Atlantic Avenue (Intersection #44) and Constitution Way and Atlantic Avenue (Intersection #45), the Lake Merritt Station Area Plan Project generates fewer trips than the Alameda Point Project, as summarized below. Therefore, the Alameda Point DEIR analysis provides a conservative estimate of the potential significant impacts of the Lake Merritt Station Area Plan. The Alameda Point DEIR does show significant pedestrian level of service impacts to the intersections of Webster Street and Atlantic Avenue (Intersection #44) and Constitution Way and Atlantic Avenue (Intersection #45) in Existing Plus Project Conditions. The Lake Merritt Station Area Plan would generate similar or fewer significant impacts than those identified in the Alameda Point DEIR.

The Alameda Point DEIR notes that the significant impacts at Webster Street and Atlantic Avenue (Intersection #44) are fully mitigated upon implementation of their mitigation measures 4.C-2a (TDM Program) and 4.C-2b (Monitoring). These mitigation measures are consistent with City of Oakland SCA-25 and Lake Merritt Station Area Plan Policy C-58, which the City of Oakland would apply to projects in the Lake Merritt Station Planning Area. Therefore, the Lake Merritt Station Area Plan would have no significant impacts on pedestrian level of service at Webster Street and Atlantic Avenue (Intersection #44).

However, at the intersection of Constitution Way and Marina Park Village Parkway (Intersection #43), the Lake Merritt Station Area Plan Project generates more trips that the Alameda Point DEIR. Therefore, this EIR conservatively estimates that there could be significant pedestrian impact to that intersection as a result of the Lake Merritt Station Area Plan.

[46] The Alameda Point DEIR was published in September 2013. The transportation analysis from the Alameda Point DEIR can be found in Appendix H of this document.

Table 3.2-36: Change in Traffic Volumes in Existing Conditions Between No Project and Plus Project Scenarios

No.	Intersection	Peak Hour	Lake Merritt Station Area Plan Project	Alameda Point Project
43	Constitution Wy & Marina Village Pkwy	AM	**67**	24
		PM	**160**	83
44	Webster St and Atlantic Ave	AM	95	**540**
		PM	126	**596**
45	Constitution Wy and Atlantic Ave	AM	66	**162**
		PM	118	**200**

Impact TRAN-28

At Constitution Way and Marina Village Parkway (Intersection #43), the Project could cause increases in pedestrian delay in the Existing Plus Project Conditions. ***(Significant and Unavoidable)***

The increase in volumes due to the Lake Merritt Station Area Plan Project could cause increases in green time for all approaches. These green time increases in addition to the overall cycle length would cause increases in pedestrian delay during the AM and PM peak hours.

Implementation of City of Oakland SCA-25 and Plan Policy C-58 would reduce the number of vehicular trips, but this EIR conservatively assumes that there would be a significant impact to pedestrian Level of Service.

Mitigation Measures

None feasible.

Significance after Mitigation

This impact is conservatively considered **significant and unavoidable**.

Impact TRAN-29

At the actuated signal at Constitution Way and Atlantic Avenue (Intersection #45), the Project would cause increases in pedestrian delay for the west leg of the intersection in the Existing Plus Project. ***(Significant and Unavoidable)***

The signal at Atlantic Avenue and Constitution Way is an actuated signal. The increase in volumes due to Alameda Point project-related traffic at the intersection of Atlantic Avenue and Constitution Way during the AM and PM peak hours would cause increases in green time for all approaches. These green time increases in addition to the overall cycle length cause increases in pedestrian delay for the west leg during the AM peak hour and for all legs during the PM peak hour.

Alameda Point Project-related vehicle traffic would increase the AM peak hour pedestrian delay along the west leg from 17.5s (LOS B) to 21.6s (LOS C), which would be considered a significant impact. The increase in delay on the south, north, and west legs would not be a significant impact. Alameda Point Project-related vehicle traffic would increase the PM peak hour pedestrian delay along the south leg from 25.6s (LOS C) to 28.9s (LOS C), along the north leg from 27.2s (LOS C) to 32.8s (LOS D), along the east leg from 20.9s (LOS C) to 25.2s (LOS C), and along the west leg from 17.6s (LOS B) to 21.2s (LOS C), which would be considered a significant impact.

The volumes created by the Lake Merritt Station Area Plan project would be significantly smaller (as noted above) that those generated by the Alameda Point Project. And implementation of City of Oakland SCA-25 and Plan Policy C-58 would further reduce the number of trips, but this EIR conservatively assumes that there would be a significant impact to pedestrian Level of Service.

Mitigation Measures

Alameda Point DEIR Mitigation Measure 4.C-2l (Atlantic/Constitution Pedestrian): Consistent with the Alameda Point DEIR, the City of Alameda shall implement the following physical improvements:

- modify the existing signal phasing for eastbound and westbound Atlantic Avenue approaches from split to permitted-protected lefts; and
- optimize the signal timing.

Significance after Mitigation

Because the City of Oakland has no jurisdiction over the mitigation, this impact is conservatively considered to be **significant and unavoidable**.

2035 Plus Project Conditions

In Cumulative 2035 Plus Project Conditions, the Lake Merritt Station Area Plan Project reduces the overall volume of trips in the City of Alameda compared to No Project Conditions; volume is reduced by 9 trips in the AM peak hour and by 92 trips in the PM hour.

The Alameda Point DEIR does show pedestrian level of service significant impacts to the intersections of Webster Street and Atlantic Avenue (Intersection #44) and Constitution Way and Atlantic Avenue (Intersection #45). The significant impacts are fully mitigated with the implementation of a Transportation Demand Management Program, along with a Transportation Monitoring Program. However, given that the Lake Merritt Station Area Plan Project reduces the number of trips generated in the City of Alameda in 2035 Plus Project Conditions, and the Project already includes SCA-25 and Lake Merritt Station Area Plan Policy C-58, which would even further reduce the number of trips, the Lake Merritt Station Area Plan does not create a significant pedestrian level of service impact at these intersections.

PLANNING-RELATED NON-CEQA ISSUES

The following topics are not mandatory considerations under CEQA but it is Oakland's practice to evaluate these topics to inform the City's decision-makers and the public about other relevant transportation issues. A qualitative assessment of these issues is presented in the following sections.

Parking

As stated in the Oakland CEQA Thresholds for Significance Guidelines[47], the Court of Appeal has held that parking is not part of the permanent physical environment, that parking conditions change over time as people change their travel patterns, and that unmet parking demand created by a project need not be considered a significant environmental impact under CEQA unless it would cause significant secondary effects.

However, the City, in its review of the proposed Plan, wants to ensure that the project's provision of parking spaces along with measures to lessen parking demand would result in minimal adverse effects to project occupants and visitors, and that any secondary effects are minimized. Therefore, although not required by CEQA, an assessment of parking conditions in the Planning Area is included in this EIR for informational purposes.

Despite the variety of non-auto transportation options available to residents and employees in Oakland, the automobile is still a highly used form of transportation within the Planning Area and the entire downtown, which requires private development to provide parking complying with the development standards in the City's zoning ordinance. With the redevelopment of the potential opportunity sites, and with most being existing parking lots, there will be a need to increase the parking capacity of the downtown area or decrease the parking demand.

The redevelopment of the opportunity sites will decrease the supply of existing off-street parking. The Lake Merritt Bart Station parking lot is not recommended to be replaced when the lot is developed because the station is in an urban area and other modes of transportation to the Lake Merritt BART Station will be promoted. The existing Laney College parking lot will be replaced with a structure as that potential site gets redeveloped. However, there are strategies to encourage students to use alternative modes of transportation due to its proximity to numerous AC Transit routes and the Lake Merritt Bart Station. Major off-street parking facilities located near Madison Street and 12th Street will be replaced with parking structures as part of the site redevelopment. The remaining small parking lots located on opportunity sites, once removed, will not be replaced.

As stated earlier, many of the opportunity sites comprising the Lake Merritt Bart Station Area Plan project are surface parking lots or, in some cases, parking structures. When redeveloped, the existing vehicles parked in these facilities will be displaced. As the Planning Area builds out, off-site parking will become increasingly scarce and more costly. Scarcity and a higher cost for parking will cause displaced parkers to make one of the following choices:

1. They will continue to search for parking within the study area regardless of cost;
2. They will expand their search radius seeking less expensive and available parking outside of the study area;

[47] *City of Oakland CEQA Thresholds of Significance Guidelines*, City of Oakland, August 2011.

3. They will shift their mode of travel away from driving; or:
4. They will not make the trip at all if it is discretionary.

The Lake Merritt Station Area Plan includes policies and parking management strategies to address parking issues within the study area. Policies included in the Proposed Plan are intended to provide an appropriate amount of private and public parking that reflects the Plan's promotion of non-auto modes of travel. The Lake Merritt Station Area Plan's policies emphasize managing parking to more efficiently utilize the reduced parking supply, and include policies to reduce parking demand and shift travel to non-auto modes of transportation. These policies are summarized below.

Policies that Improve the Efficiency of the Parking Supply

C-3 **Targeted operational improvements in the Chinatown core**. Implement targeted improvements in the Chinatown core, such as:
- Improve loading regulations to reduce double parking and congestion.
- Promote improved cleaning of the sidewalks and streets.
- Enhance the overall sense of security in the area.
- Improve access to parking, and enforce compliance with parking regulations that aim to improve the quality of the commercial district.

C-48 **Angled parking on 10th Street**. Modify 10th Street to the west of Madison Street by removing a lane of traffic and transforming the on-street parking from a parallel to angled configuration to accommodate additional on-street public parking spaces.

C-49 **No BART parking replacement**. Work with BART to eliminate their parking replacement policy for the Lake Merritt Station. New development of the existing BART parking lots would therefore not be required to replace displaced parking spaces with new spaces. Improvements to pedestrian, bicycle, bus access to the Lake Merritt BART Station will ensure that no ridership is lost.

C-50 **Off-street parking visibility and use**. Improve the visibility and use of existing private and public off-street parking lots with pedestrian-oriented lighting and directional signage for drivers.

C-51 **New public parking**. Encourage new development on sites with existing public parking garages (such as sites 8 and 11) to include structured public parking as part of the development project.

C-52 **Improve safety of transit access at Laney College**. Reduce the parking demand generated by Laney College students by improving the safety of transit access, particularly at night, and working with BART and AC Transit to ensure that routes and schedules serving Laney College meet student needs.

C-53 **Unbundle the cost of residential parking.** Encourage new residential development to unbundle the cost of parking from housing cost.

C-54 **Enforcement**. Increase enforcement of time limits for on-street parking in the Chinatown core.

C-55 **Parking pricing**. Study the efficacy of increasing on-street parking rates in high demand locations and reducing costs in less used areas (such as in off-street parking garages) to make the

best use of available spaces. Implement a marketing program to educate the public about available parking areas and varied costs.

C-56 **Parking requirements**. Reduce parking minimum requirements in the entire Planning Area.

C-57 **On-street bicycle parking**. Install on-street bicycle parking, at major destinations such as the Chinatown core, the Main Library, Laney College, Lincoln Elementary, and the OUSD Downtown Campus. Bicycle parking at the Lake Merritt Bart Station is addressed in the section on transit access.

Policies that Help Reduce Parking Demand

C-58 **Transportation demand management**. Require new large employers to implement Transportation Demand Management (TDM) measures, and encourage existing employers such as Laney College and Alameda County to implement similar measures, such as:

- Designate a TDM coordinator who would distribute information to employees to promote TDM programs.
- Carpool and vanpool ride-matching services and provision of car sharing parking spaces.
- Guaranteed Ride Home Program, which allows transit users and car/vanpoolers access to free or reduced taxi service to get home in case of an emergency.
- Subsidized transit passes for area employees and/or a parking cash-out program.
- Bicycle parking, both short and long term, located near entrances.
- Showers and lockers.

Transit Ridership

Interim 2020 Conditions

A summary of the BART ridership is shown in **Table 3.2-36** for Interim 2020 conditions. Compared to the No Project scenario, the Project mostly contributes to an increase in ridership on some routes, and a reduction in ridership on other routes. Based on the PM peak hour ridership increases, the Project is not expected to negatively affect any BART route. **Table 3.2-36** indicates tha**t** future BART service during the peak hour has sufficient capacity to accommodate the change in BART ridership associated with the Project.

AC Transit ridership is also shown in **Table 3.2-36** for 2020 Plus Project conditions. Similar to the BART ridership, the Project mostly contributes to a reduction in ridership on most routes. Therefore, the project is not expected to negatively affect any bus routes. Based on the small PM peak hour ridership changes shown in **Table 3.2-37**, future AC Transit service during the peak hour has sufficient capacity to accommodate the change in AC ridership associated with the Project.

Cumulative 2035 Conditions

A summary of the BART ridership is shown in **Table 3.2-37** for 2035 conditions. Compared to the No-Project scenario, the Project contributes to an increase in ridership on some routes, and a reduction in ridership on other routes. Based on the small PM peak hour ridership increases shown in **Table 3.2-37**,

A summary of AC Transit ridership is also shown in **Table 3.2-37** for 2035 conditions. The Project contributes to a reduction in ridership on most routes. Based on the small PM peak hour ridership changes shown in **Table 3.2-37**, future AC Transit service during the peak hour has sufficient capacity to accommodate the change in AC ridership associated with the Project. Therefore, the Project is not expected to require a change to the transit service standard of 15- to 30-minute bus frequencies.

Table 3.2-36: 2020 Transit Ridership Comparison between No-Project and Project Scenarios

Route	*2020 Ridership - Daily*				*2020 Ridership - PM Peak Hour*				*Significant Impact*
	2020 No Project	*2020 Project*	*Difference*	*% Diff.*	*2020 No Project*	*2020 Project*	*Difference*	*% Diff.*	
BART									
Daly City-Dublin/Pleasanton	22,893	23,262	369	2%	5,723	5,816	92	2%	N
Pleasanton/Daly City-Dublin	48,393	47,851	(542)	-1%	12,098	11,963	(136)	-1%	N
Daly City-Berryessa/San Jose	23,744	24,023	279	1%	5,936	6,006	70	1%	N
Berryessa/San Jose-Daly City	37,842	37,712	(130)	0%	9,461	9,428	(33)	0%	N
Berryessa-Richmond	24,781	24,685	(96)	0%	6,195	6,171	(24)	0%	N
Richmond-Berryessa	17,971	17,559	(412)	-2%	4,493	4,390	(103)	-2%	N
Daly City-Fremont	2,175	2,202	27	1%	544	551	7	1%	N
Fremont-Daly City	3,036	2,890	(146)	-5%	759	723	(37)	-5%	N
Total - BART	180,835	180,184	(651)	-0.4%	45,209	45,046	(163)	-0.4%	N
AC Transit									
AC BRT	41,676	41,210	(466)	-1%	10,419	10,303	(117)	-1%	N
Route 11	2,131	2,102	(29)	-1%	533	526	(7)	-1%	N
Route 13	2,152	2,116	(36)	-2%	538	529	(9)	-2%	N
Route 14	1,796	1,771	(25)	-1%	449	443	(6)	-1%	N
Route 15	1,549	1,509	(40)	-3%	387	377	(10)	-3%	N
Route 18	7,485	7,330	(155)	-2%	1,871	1,833	(39)	-2%	N
Route 19	8,852	8,704	(148)	-2%	2,213	2,176	(37)	-2%	N
Route 40	4,330	4,288	(42)	-1%	1,083	1,072	(11)	-1%	N
Route 51	12,830	12,577	(253)	-2%	3,208	3,144	(63)	-2%	N
Route 62	5,433	5,381	(52)	-1%	1,358	1,345	(13)	-1%	N
Route 63	4,905	4,806	(99)	-2%	1,226	1,202	(25)	-2%	N
Route 72	26,058	25,295	(763)	-3%	6,515	6,324	(191)	-3%	N
Route 88	1,549	1,546	(3)	0%	387	387	(1)	0%	N
Total - AC Transit	120,746	118,635	(2,111)	-2%	30,187	29,659	(528)	-2%	N
Grand Total	**301,581**	**298,819**	**(2,762)**	**-0.9%**	**75,395**	**74,705**	**(691)**	**-0.9%**	N

Source: Alameda CTC P09 Countywide Model, Kittelson & Associates, Inc. 2012

Table 3.2-37: 2035 Transit Ridership Comparison between No-Project and Project Scenarios

	2035 Ridership - Daily				*2035 Ridership - PM Peak Hour*			
Route	*2035 No Project*	*2035 Project*	*Difference*	*% Diff.*	*2035 No Project*	*2035 Project*	*Difference*	*% Diff.*
BART								
Daly City-Dublin/Pleasanton	23,085	23,093	8	0%	5,771	5,773	2	0%
Pleasanton/Daly City-Dublin	81,545	80,136	(1,409)	-2%	20,386	20,034	(352)	-2%
Daly City-Berryessa/San Jose	45,835	41,781	(4,054)	-9%	11,459	10,445	(1,014)	-9%
Berryessa/San Jose-Daly City	71,845	70,605	(1,240)	-2%	17,961	17,651	(310)	-2%
Berryessa-Richmond	62,009	59,396	(2,613)	-4%	15,502	14,849	(653)	-4%
Richmond-Berryessa	46,339	41,369	(4,970)	-11%	11,585	10,342	(1,243)	-11%
Daly City-Fremont	1,955	1,969	14	1%	489	492	4	1%
Fremont-Daly City	3,031	2,912	(119)	-4%	758	728	(30)	-4%
Total - BART	335,644	321,261	(14,383)	-4.3%	83,911	80,315	(3,596)	-4.3%
AC Transit								
AC BRT	47,329	47,145	(184)	0%	11,832	11,786	(46)	0%
Route 11	2,902	2,849	(53)	-2%	726	712	(13)	-2%
Route 13	2,911	2,847	(64)	-2%	728	712	(16)	-2%
Route 14	2,403	2,355	(48)	-2%	601	589	(12)	-2%
Route 15	1,416	1,360	(56)	-4%	354	340	(14)	-4%
Route 18	9,818	9,554	(264)	-3%	2,455	2,389	(66)	-3%
Route 19	14,042	13,783	(259)	-2%	3,511	3,446	(65)	-2%
Route 40	4,700	4,587	(113)	-2%	1,175	1,147	(28)	-2%
Route 51	18,010	17,557	(453)	-3%	4,503	4,389	(113)	-3%
Route 62	6,850	6,794	(56)	-1%	1,713	1,699	(14)	-1%
Route 63	6,488	6,309	(179)	-3%	1,622	1,577	(45)	-3%
Route 72	36,615	35,056	(1,559)	-4%	9,154	8,764	(390)	-4%
Route 88	2,265	2,232	(33)	-1%	566	558	(8)	-1%
Total - AC Transit	155,749	152,428	(3,321)	-2%	38,937	38,107	(830)	-2%
Grand Total	**491,393**	**473,689**	**(17,704)**	**-3.6%**	**122,848**	**118,422**	**(4,426)**	**-3.6%**

Source: Kittelson & Associates, based on AC Transit planning department data.

Transit Load Factors

Table 3.2-38 shows an analysis of existing AC Transit load factors (number of passengers divided by number of seats). AC Transit's current standard for these lines is no more than 1.25 total passengers for each seat; for example, if there are 40 seats on a bus, the number of passengers (seated and standing) should be no more than 50.

BART defines its loading standard during the AM peak hour as a maximum of 90 passengers per car, seated and standing. For transbay lines, BART's maximum load point is in the Transbay Tube, between West Oakland and Embarcadero stations. The AM peak is used for planning purposes, since it is usually worse than the PM peak, when trips are less concentrated temporally. On the Eastbay Richmond-Fremont Line, the maximum load point occurs just south of the Lake Merritt station, between Lake Merritt and Fruitvale stations. Because of the large concentrations of employment in San Francisco and Oakland, BART's passenger demand tends to be highly directional; the peak direction in the AM is northbound and westbound, and in the PM peak is southbound and eastbound.

Table 3.2-39 shows that the current lines serving Lake Merritt Station are just below the standard; therefore, even a small additional ridership tips the lines above the 90-passenger/car standard.

Proposed Policies in the Lake Merritt Station Area Plan that Improve Transit Load Factors

Policy C-58 Transportation Demand Management typically includes encouraging staggered work hours or non-traditional workweeks. Those measures would reduce the impact on transit operators' peak hour crowding. By providing a balance of residential and work in the Project area, the Lake Merritt Station Area Plan would also reduce the demand for transit.

Transit Agency Considerations for Reducing Load Factors

AC Transit may consider increasing the size of their buses operating during the peak hour on the 1R and 51A lines. Buses operated on the 1R currently have 47 seats; seating capacity could be increased by using articulated coaches with a seating capacity of 57. On the 51A, buses used have 32 seats; the seating capacity of this route could be increased by using buses already in the AC Transit fleet seating 40 to 47 passengers. Both of these considerations would bring the load factor to 1.25 or less (i.e., within AC Transit's current standard).

Introduction of new BART cars now on order would increase the total capacity (seated + standing) from 90 to 107 passengers per car. This represents an increase in passenger capacity of nearly 20 percent. BART has selected a contractor for the new cars, and expects to begin receiving them in early 2017. The new cars will have three doors, instead of the present two, and will have additional standing space (but fewer seats) than the present cars. The additional doors are expected to also speed the loading and unloading of trains, allowing for faster travel times and potentially more frequent service.

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Table 3.2-38: AC Transit Load Analysis

			Maximum Load Segment			*Existing Maximum Load*				*With Project*			
Route	*Direction*	*Peak Hour*	*Segment*	*Buses Per Hr.*	*Pass.*	*Seats*	*Pass. Per Seat*	*Standard*	*Within Std?*	*New Project Riders*	*Max. Load Pass. w/ Project*	*Pass/ Seat*	*Within Agency Std?*
1	NB	AM	International/23rd Av to 14 St & Broadway	4	46	47	0.98	1.25	Y	6	48	1.01	Y
	SB	AM	International/34 Av to International/98 Av	4	29	47	0.62	1.25	Y	27	36	0.76	Y
	NB	PM	International/23rd Av to 14 St & Broadway	4	31	47	0.66	1.25	Y	28	38	0.81	Y
	SB	PM	International/34 Av to International/Seminary Av	4	41	47	0.87	1.25	Y	9	43	0.92	Y
1R	NB	AM	International /High St to 14 St/Broadway	5	60	47	1.28	1.25	N	6	61	1.30	N
	SB	AM	International /High St to International/98 Av	5	35	47	0.74	1.25	Y	27	40	0.86	Y
	NB	PM	International /High St to 14 St/Broadway	5	28	47	0.60	1.25	Y	28	34	0.72	Y
	SB	PM	14 St/Broadway to International /High St	5	57	47	1.21	1.25	Y	9	59	1.25	N
11	EB	AM	Harrison St/MacArthur to 20 St/Webster St	2	25	40	0.63	1.25	Y	1	25	0.64	Y
	WB	AM	20 St/Webster St. to Oakland Av/MacArthur	2	46	40	1.15	1.25	Y	4	48	1.20	Y
	EB	PM	8 St/Oak St to 14 Av/E 17 St	2	16	40	0.40	1.25	Y	4	18	0.45	Y
	WB	PM	20 St/Webster St. to Oakland Av/MacArthur	2		40	0.00	1.25	Y	1	1	0.02	Y
14	EB	AM	High St/MacArthur to Fruitvale BART	4	19	40	0.48	1.25	Y	2	19	0.49	Y
	WB	AM	E 21 St/23 Av to 1 Av/International Blvd	4	37	40	0.93	1.25	Y	8	39	0.97	Y
	EB	PM	1 Av/International Blvd to E 21 St/23 Av	4	28	40	0.70	1.25	Yes	8	30	0.75	Y
	WB	PM	12 St/Broadway to 11 St/Jefferson St	4	34	40	0.85	1.25	Yes	2	35	0.87	Y
18	NB	AM	1 Av/International Blvd to Broadway/14 St (BART 12th St)	4	33	32	1.03	1.25	Yes	4	34	1.06	Y
	SB	AM	1 Av/International Blvd to Park Blvd/MacArthur Blvd	4	28	32	0.88	1.25	Yes	18	32	1.01	Y
	NB	PM	Shattuck Sq/Center St. (Berk BART) to Solano Av/The Alameda	4	31	32	0.97	1.25	Yes	19	36	1.11	Y
	SB	PM	Broadway/14 St (BART 12th St) to 1 Av/International Blvd	4	34	32	1.06	1.25	Yes	6	35	1.11	Y
20	EB	AM	Webster St/Atlantic Av to Alameda S Shore Ctr/Park St	2	16	40	0.40	1.25	Y	2	17	0.42	Y
	WB	AM	Webster St/Atlantic Av to MLK Jr Way/11 St	2	29	40	0.73	1.25	Y	7	33	0.81	Y
	EB	PM	Webster St/Atlantic Av to Alameda S Shore Ctr/Park St	2	29	40	0.73	1.25	Y	7	33	0.82	Y
	WB	PM	Alameda S Shore Ctr/Park St TO Webster St/Atlantic Av	2	29	40	0.73	1.25	Y	2	30	0.75	Y
31	NB	AM	W Ranger Av to Webster St/Atlantic Av	2	21	25	0.84	1.25	Y	1	21	0.86	Y
	SB	AM	W Oakland BART Station to 11 St/Broadway (12 St BART)	2	23	25	0.92	1.25	Y	4	25	1.00	Y
	NB	PM	12 St/Broadway to W Oakland BART Station	2	23	25	0.92	1.25	Y	4	25	1.00	Y
	SB	PM	Webster St/Atlantic Av to W Ranger Av	2	18	25	0.72	1.25	Y	1	19	0.75	Y

Table 3.2-38: AC Transit Load Analysis

			Maximum Load Segment			*Existing Maximum Load*				*With Project*			
Route	*Direction*	*Peak Hour*	*Segment*	*Buses Per Hr.*	*Pass.*	*Seats*	*Pass. Per Seat*	*Standard*	*Within Std?*	*New Project Riders*	*Max. Load Pass. w/ Project*	*Pass/ Seat*	*Within Agency Std?*
40	NB	AM	35 Av/Foothill Blvd to 1 Av/International Blvd	6	46	47	0.98	1.25	Y	5	47	1.00	Y
	SB	AM	Foothill Blvd/Seminary Av to Eastmont Transit Ctr	6	30	47	0.64	1.25	Y	20	33	0.71	Y
	NB	PM	Eastmont Transit Ctr to Foothill Blvd/Seminary	6	23	47	0.49	1.25	Y	21	26	0.56	Y
	SB	PM	1 Av/International Blvd to 35 Av/Foothill Blvd	6	33	47	0.70	1.25	Y	6	34	0.73	Y
51A	NB	AM	Broadway/14 St (BART 12th St) to Broadway/Grand Av	6	41	32	1.28	1.25	N	6	42	1.31	N
	SB	AM	Broadway/14 St (BART 12th St) to Webster St/Atlantic	6	25	32	0.78	1.25	Y	24	29	0.91	Y
	NB	PM	Webster St/Atlantic Av to Broadway/14 St (BART 12th St)	6	27	32	0.84	1.25	Y	25	31	0.98	Y
	SB	PM	Webster St/Atlantic Av to Santa Clara Av/Park St	6	39	32	1.22	1.25	Y	8	40	1.26	N
62	EB	AM	E 31 St/Stuart St (Highland Hosp) to 23 Av/International Blvd	3	15	40	0.38	1.25	Y	2	16	0.39	Y
	WB	AM	E 31 St/Stuart St (Highland Hosp) to Lake Merritt BART (8 St/Oak St)	3	33	40	0.83	1.25	Y	8	36	0.89	Y
	EB	PM	Lake Merritt BART (8 St/Oak St) to E 31 St/Stuart St (Highland Hosp)	3	21	40	0.53	1.25	Y	8	24	0.59	Y
	WB	PM	23 Av/International Blvd to E 31 St/Stuart St (Highland Hosp)	3	12	40	0.30	1.25	Y	2	13	0.32	Y
88	NB	AM	Sacramento St/Ashby Av to Shattuck Sq/Center St. (Berk BART)	3	21	40	0.53	1.25	Y	1	21	0.54	Y
	SB	AM	Market St/21 St to 11 St/Broadway (12 St BART)	3	22	40	0.55	1.25	Y	5	24	0.59	Y
	NB	PM	12 St/Broadway to Market St/21 St	3	22	40	0.55	1.25	Y	5	24	0.60	Y
	SB	PM	Shattuck Sq/Center St. (Berk BART) to Sacramento St/Ashby Av	3	22	40	0.55	1.25	Y	2	23	0.56	Y

Source: Kittelson & Associates, based on AC Transit planning department data.

Table 3.2-39: BART Maximum Passenger Loadings - AM Peak Hour

Line[1]	*Max. Load Occurs (AM)*	*1-hour Pass. Volume*	*Car Flow (total all trains in peak hour)*	*Pass. Per Car*	*Meet Std?*	*Project Added Pass. per Car*	*Total Pass. Car*	*Meet Std w/ Project?*
Richmond-Fremont	Fruitvale > Lake Merritt	2,284	26	88	Y	7	95	N
Fremont-Daly City	W. Oakland > Embarcadero	4,110	46	89	Y	15	104	N
Dublin/ Pleasanton-Daly City	W. Oakland > Embarcadero	3,202	36	89	Y	15	104	N

Note:

1. Lines are sometimes referred to by color: orange (Richmond-Fremont); green (Fremont-Daly City); and blue (Dublin/Pleasanton-Daly City).

Vehicle Queuing

Vehicle queuing, like the other topics in this section, is not considered a CEQA impact because it can change over time in response to changes in travel patterns, changes in signal timing, and even hourly. Queuing is reported for the purposes of providing comprehensive data about intersection operations that the City of Oakland and other agencies might find useful in future planning. Vehicle queues are identified as potential issues if they regularly and consistently extend beyond the length of the storage lane and block other lanes.

As traffic demand increases, it is common for traffic at signals and stop signs to form lines of stopped (or queued) vehicles. An operational analysis is used to estimate potential queue lengths using a 95th percentile level of confidence (the 95th percentile estimate of queuing represents a condition where the length of the actual queue will be at, or less than, the queue estimated in the analysis). Ninety-fifth percentile queuing was estimated under the scenarios analyzed in this study and considering planned intersection and signal timing improvements A summary of the queuing results is included in **Appendix D**.

The results of the analysis identify instances where queuing in dedicated turn lanes may potentially exceed the storage limits of the lanes. The analysis showed that several turning lanes experience queues that exceed their storage length under cumulative traffic volumes. In most cases, the inadequate storage to accommodate queues are not directly caused by development within the Lake Merritt Station Area Plan but are existing deficiencies which future development exacerbates. For example, the southbound left turn queue at the intersection of 18th Street and Lakeshore Avenue is 242 feet during the PM peak hour under Existing Conditions and the queue length remains at 242 feet during the PM peak hour under Existing Plus Project conditions. The turning lane length is 200 feet and the queue spills out of the turn lane into the adjacent lane momentarily blocking through traffic. This existing deficiency would occur whether the Plan was implemented or not, but development allowed under the Lake Merritt Station Area Plan would contribute to a worsening cumulative condition. At locations affected by project traffic, the increase in vehicle queuing is typically less than one vehicle, except at the following intersections:

- Intersection #1 – Broadway and Grand Avenue (NBL: Total queue length is 185 feet, 45 feet longer than the turn lane length during the PM peak hour in Existing Plus Project conditions. The Existing (Without Project) queue length is 155 feet. The project contributes to 30 feet (less than two vehicles) of the queue extending out of the turn lane.

- Intersection #35 – 7th Street / 5th Avenue (EBL: Total queue length is 278 feet, 113 feet longer than the turn lane length during the PM peak hour in Cumulative 2035 Plus Project conditions. The Cumulative 2035 No Project queue length is 253 feet. The project creates one (1) vehicle or 25 feet of the total queue.

Traffic Control Devices

Traffic control devices include traffic signals, flashing beacons, pedestrian crossing countdown timers, signs (regulatory, warning, guide, and construction), and pavement markings. The application and use of these devices are guided by the California Manual of Uniform Traffic Control Devices (CA-MUTCD). The standards and guidance contained within the MUTCD are recognized by the Oakland's engineering division and their mandatory use is required by both the City and Caltrans.

Transportation improvements and/or strategies identified in the Lake Merritt Station Area Plan and in this EIR that involve new traffic signals or modification of existing signals, or the reconfiguration of lanes on streets or within intersections are required to conform to the standards and guidance in the California MUTCD. The exact determination of the need for appropriate traffic control devices occurs at the project-specific level of environmental review and/or with preparation of the Plans, Specifications, and Estimates (PS&E) for construction of improvements. It is the responsibility of the City's engineering division to review impact studies for new development and review and approve design plans for construction of transportation facilities to assure the appropriate traffic control devices are included.

Collision History

The Lake Merritt Station Area Plan addresses the key safety issues within the study area. Many components of the Lake Merritt Station Area Plan will increase the safety of the transportation network as it relates to vehicles, pedestrians, and bicyclists.

The pedestrian improvements recommended by the Lake Merritt Station Area Plan should help decrease the number of auto related pedestrian accidents. By providing bulb outs and curb extensions at intersections, pedestrians will be more visible to motorists and there will also be shorter crossing times for pedestrians. Pedestrian refuge islands are also recommended and will make it safer for pedestrians to cross by shortening the crossing distance. Lead "Walk" intervals prior to green lights for motorists will allow pedestrians to enter the roadway and be visible to motorists. All these pedestrian improvements within the Lake Merritt Station Area Plan should help reduce the 52 pedestrian related accidents between 2005 and 2010.

Bicycle improvements have also been recommended as part of the Lake Merritt Station Area Plan. Class I bike paths, Class 2 bike lanes, and Class 3 bike routes will give cyclists more right of way on the road and therefore should help to reduce the 16 bicycle related accidents incurred between 2005 and 2010.

In addition to the aforementioned pedestrian and bicycle improvements, the Lake Merritt Station Area Plan recommends restriping some vehicle travel lanes from 12 feet to either 10 or 11 feet. This will help

to reduce travel speeds within the area and should help to reduce the total number of incidents in the study area.

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3.3 Air Quality

This section provides an overview of the existing air quality in the Planning Area and surrounding environment, the regulatory framework, and an analysis of impacts related to any fundamental conflicts with the 2010 Bay Area Clean Air Plan, toxic air contaminants, and odors that would result from implementation of the proposed Plan.

Environmental Setting

PHYISICAL SETTING

Regional Air Quality

Atmospheric conditions such as wind speed, wind direction, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants. California's coastal regions have a temperate climate, with relatively cool temperatures and a pattern of onshore/offshore airflow. Both of these factors favor relatively good air quality.[1] The Planning Area is located in the East Bay within the boundaries of the San Francisco Bay Area (Bay Area) Air Basin. The Bay Area Air Basin encompasses the nine-county region including all of Alameda, Contra Costa, Santa Clara, San Francisco, San Mateo, Marin and Napa counties, and the southern portions of Solano and Sonoma counties. The climate of the Bay Area is determined largely by a high-pressure system that is almost always present over the eastern Pacific Ocean off the West Coast of North America. During winter, the Pacific high-pressure system shifts southward, allowing storms to pass through the region. During summer and fall, emissions generated within the Bay Area can combine with abundant sunshine under the restraining influences of topography and subsidence inversions to create conditions that are conducive to the formation of photochemical pollutants, such as ozone and secondary particulates, such as nitrates and sulfates.

Criteria Air Pollutants

As required by the federal Clean Air Act passed in 1970, the United States Environmental Protection Agency (EPA) has identified six air pollutants that are pervasive in urban environments. The EPA calls these pollutants criteria air pollutants because the agency has regulated them by developing specific public health- and welfare-based criteria as the basis for setting permissible levels. Additionally, in April 2009, EPA released an Endangerment Finding that greenhouse gases (GHGs) significantly contribute to air pollution, triggering the process under the Clean Air Act for developing National Ambient Air Quality

[1] California Air Resources Board (ARB). *The California Almanac of Emissions and Air Quality*, 2009, p. 1-6.

Standards for GHGs and establishing emissions standards for stationary and mobile sources. GHG emissions are addressed in Section 3.4: Climate Change and Greenhouse Gases.

The Bay Area Air Quality Management District (BAAQMD) and the California Air Resources Board (ARB) operate a regional monitoring network that measures the ambient concentrations of the six criteria air pollutants described below.

- ***Ozone.*** Short-term exposure to ozone can irritate the eyes and cause constriction of the airways. Besides causing shortness of breath, ozone can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema. Ozone is not emitted directly into the atmosphere, but is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROGs) and nitrogen oxides (NO_x). ROGs and NO_x are known as precursor compounds for ozone. Significant ozone production generally requires ozone precursors to be present in a stable atmosphere with strong sunlight for approximately three hours. Ozone is a regional air pollutant because it is not emitted directly by sources, but is formed downwind of sources of ROGs and NO_x under the influence of wind and sunlight. Ozone concentrations tend to be higher in the late spring, summer, and fall, when long sunny days combine with regional subsidence inversions to create conditions conducive to the formation and accumulation of secondary photochemical compounds, like ozone.
- ***Carbon Monoxide (CO).*** Ambient CO concentrations are normally considered a local effect and typically correspond closely to the spatial and temporal distributions of vehicular traffic. Wind speed and atmospheric mixing also influence CO concentrations. Under inversion conditions, CO concentrations may be distributed more uniformly over an area that may extend some distance from vehicular sources. When inhaled at high concentrations, CO combines with hemoglobin in the blood and reduces the oxygen-carrying capacity of the blood. This results in reduced oxygen reaching the brain, heart, and other body tissues. This condition is especially critical for fetuses and people with cardiovascular diseases, chronic lung disease, or anemia.
  - CO concentrations have declined dramatically in California due to existing controls and programs, and most areas of the state have no problem meeting the carbon monoxide state and federal standards. CO measurements and modeling were important in the early 1980s when CO levels were regularly exceeded throughout California. In more recent years, CO measurements and modeling have not been a priority in most California air districts due to the retirement of older polluting vehicles, fewer emissions from new vehicles, and improvements in fuels.
- ***Nitrogen Dioxide (NO_2).*** NO_2 is a reddish brown gas that is a by-product of combustion processes. Automobiles and industrial operations are the main sources of NO_2. NO_2 may be visible as a coloring component of a brown cloud on high pollution days, especially in conjunction with high ozone levels.
  - NO_2 poses an air quality concern because it acts as a respiratory irritant and is a precursor of ozone. It is a major component of the group of gaseous nitrogen compounds commonly referred to as NO_x. NO_x are produced by fuel combustion in motor vehicles, industrial stationary sources (such as industrial activities), ships, aircraft, and rail transit. Typically, nitrogen oxides emitted from fuel combustion are in the form of nitric oxide (NO) and NO_2. NO is often converted to NO_2 when it reacts with ozone or undergoes photochemical

reactions in the atmosphere. Therefore, emissions of NO_2 from combustion sources are typically evaluated based on the amount of NOx emitted from the source.

- ***Sulfur Dioxide (SO_2).*** SO_2 is a combustion product of sulfur or sulfur-containing fuels such as coal and oil, which are restricted in the Bay Area. SO_2 is also a precursor to the formation of atmospheric sulfate and particulate matter, and it contributes to potential atmospheric sulfuric acid formation that could precipitate downwind as acid rain. Its health effects include breathing problems and may cause permanent damage to lungs.
- ***Particulate Matter (PM_{10} and $PM_{2.5}$).*** PM_{10} and $PM_{2.5}$ consist of particulate matter that is 10 microns or less in diameter and 2.5 microns or less in diameter, respectively. (A micron is one-millionth of a meter). PM_{10} and $PM_{2.5}$ represent fractions of particulate matter that can be inhaled into the air passages and the lungs and can cause adverse health effects. Some sources of particulate matter, such as wood burning in fireplaces, demolition, and construction activities, are more local in nature. Other sources, such as vehicular traffic, have a more regional effect. Very small particles of certain substances (e.g., sulfates and nitrates) can cause lung damage directly, or can contain adsorbed gases (e.g., chlorides or ammonium) that may be injurious to health. Particulates also can damage materials and reduce visibility. Large dust particles (diameter greater than 10 microns) settle out rapidly and are easily filtered by human breathing passages. This large dust is of more concern as a soiling nuisance rather than a health hazard.
  - The remaining fraction, PM_{10} and $PM_{2.5}$, are a health concern particularly at levels above the federal and state ambient air quality standards. $PM_{2.5}$ (including diesel exhaust particles) is thought to have greater effects on health, because these particles are so small and thus, are able to penetrate to the deepest parts of the lungs. Scientific studies have suggested links between fine particulate matter and numerous health problems including asthma, bronchitis, acute and chronic respiratory symptoms such as shortness of breath and painful breathing. Recent studies have shown an association between morbidity and mortality and daily concentrations of particulate matter in the air and a comprehensive evaluation of the research findings provides persuasive evidence that exposure to fine particulate air pollution has adverse effects on cardiopulmonary health.[2] Children are more susceptible to the health risks of PM_{10} and $PM_{2.5}$ because their immune and respiratory systems are still developing.
- ***Lead.*** Leaded gasoline (currently phased out), paint (houses, cars), smelters (metal refineries), manufacture of lead storage batteries have been the primary sources of lead released into the atmosphere. The phase-out of leaded gasoline in California resulted in decreasing levels of atmospheric lead. Lead has a range of adverse neurotoxic health effects; children are at special risk. Some lead-containing chemicals cause cancer in animals.

The Bay Area Air Basin is currently designated as a nonattainment area for federal and State ozone standards. The Bay Area Air Basin is also currently designated as a nonattainment area for particulate matters PM_{10} and $PM_{2.5}$ state standards. The standards for carbon monoxide, nitrogen dioxide, sulfur dioxide, and lead are being met in the Bay Area.[3]

[2] Pope, Arden and Dockery, Douglas. Health Effects of Fine Particulate Air Pollution: Lines that Connect. Journal of the Air & Waste Management Association. 56L709-742, Volume 56, June 2006.

[3] Bay Area Air Quality Management District (BAAQMD), Air Quality Standards and Attainment Status, available online at http://hank.baaqmd.gov/pln/air_quality/ambient_air_quality.htm, accessed September 7, 2012.

Table 3.3-1 shows trends in regional exceedances of the federal and state ozone standards. Because of the number of exceedances, ozone is the pollutant of greatest concern in the Bay Area. Bay Area counties experience most ozone exceedances during the period from April through October. The standards for NO_2, SO_2, and lead are being met in the Bay Area.

Table 3.3-1: Summary of Ozone Data for the San Francisco Bay Area Air Basin (1998-2011)

Year	*Number of Days Standard Exceeded*[1]				*Ozone Concentrations in ppm*[2]	
	State		*Federal*		*Maximum*	
	1 Hour	*8 Hour*	*1 Hour*	*8 Hour*	*1 Hour*	*8 Hour*
2011	5	10	0	4	0.115	0.085
2010	8	11	3	9	0.150	0.098
2009	11	12	0	8	0.113	0.095
2008	9	20	2	12	0.141	0.111
2007	4	9	0	2	0.120	0.091
2006	18	22	1	17	0.127	0.106
2005	9	9	0	5	0.120	0.090
2004	7	13	0	7	0.113	0.085
2003	19	20	1	12	0.128	0.101
2002	16	19	2	15	0.160	0.106
2001	15	21	1	13	0.134	0.102
2000	12	17	3	19	0.152	0.115
1999	20	28	3	18	0.156	0.123
1998	29	29	8	24	0.147	0.111

Notes:

This table summarizes the data from all of the monitoring stations within the Bay Area.

ppm = parts per million

Source: California Air Resources Board, 2012. Air Quality Trend Summaries, http://www.arb.ca.gov/adam/trends/trends2.php.

Transportation, including automobiles, trucks, transit buses, and other modes, is a major contributor to regional air pollution. Although stationary sources were once important contributors to both regional and local pollution, their role has been substantially reduced in recent years by pollution control programs and decline of heavy manufacturing in the Bay Area. Further progress in air quality improvement now focuses heavily on transportation sources.

Local Air Quality

Existing future levels of air quality in the Planning Area can generally be inferred from ambient air quality measurements for the City of Oakland. **Table 3.3-2** summarizes the air quality data from monitoring stations located in the vicinity of the Planning Area. 2009 data for ozone and $PM_{2.5}$ are from a station located at 9925 International Boulevard in Oakland, which is eight miles south of the Planning Area. 2010 and 2011 data for ozone and $PM_{2.5}$ are from the West Oakland monitoring station, located just

under a mile away from the Planning Area. PM_{10} data were not available from either Oakland monitoring station, so data from 6th Street in Berkeley (located approximately five miles away) are used for PM_{10}.

Table 3.3-2: Air Quality Data for Oakland (2009-2010)

Pollutant	*Standard*	*2009*[1]	*2010*[2]	*2011*
Ozone (International Blvd 2009, West Oakland 2010, 2011)				
Highest 1-hr Average (ppm)[3]		**0.092**	0.040	0.057
Days over State Standard	0.09	0	0	0
Highest 8-hr Average (ppm)[3]		0.063	0.035	0.048
Days over State Standard	0.07	0	0	0
Days over National Standard	0.075	0	0	0
$PM_{2.5}$ (International Blvd 2009, West Oakland 2010, 2011)				
Highest 24-hr Average ($\mu g/m^3$)[3]		**36.3**	**35.2**	**43.1**
Estimated Days over National Standard	35	**3**	*****	*
PM^{10} (6th Street Berkeley)				
Highest 24-hr Average ($\mu g /m^3$)[3]		33.5	42.8	n/a
Estimated Days over State Standard	50	0	*	n/a
Estimated Days over National 24-hr Standard	150	0	0	n/a
Annual Average	80	18.3	*	n/a

Notes:

1. 2009 monitoring data are from International Boulevard for Ozone and $PM_{2.5}$. Data for PM_{10} is from 6th Street in Berkeley.
2. 2010 and 2011 monitoring data are from West Oakland for Ozone and $PM_{2.5}$. Data for PM_{10} is from 6th Street in Berkeley.
3. Ppm = parts per million; $\mu g /m^3$ – micrograms per cubic meter.

* There was insufficient (or no data) available to determine value.

Source: California Air Resources Board, http://www.arb.ca.gov/adam/, accessed September 7, 2012.

Toxic Air Contaminants (TACs)

TACs are non-criteria air pollutants that are airborne substances that are capable of causing short-term (acute) and/or long-term (chronic or cancer causing) adverse human health effects (i.e., injury or illness). Long term effects could include cancer, neurological damage, hormone disruption, and developmental defects. TACs include both organic and inorganic chemical substances. TACs may be emitted from a variety of common sources including gasoline stations, automobiles, dry cleaners, industrial operations, and painting operations. Mobile sources account for most of the cancer risk associated with TACs in the Bay Area (31 percent). ARB has identified 191 air toxics, including diesel particulate matter (DPM) and environmental tobacco smoke.[4]

[4] Bay Area Air Quality Management District (BAAQMD). Bay Area 2010 Clean Air Plan, September 2010.

In 2000 the ARB assessed the statewide health risks from exposure to diesel exhaust and to other TACs.[5] It is difficult to distinguish the health risks of diesel emissions from the other air toxics, since diesel exhaust contains approximately 40 different TACs. The ARB study detected diesel exhaust by using ambient air carbon soot measurements as a surrogate for diesel emissions. The ARB study reported that in 2000, the statewide cancer risk from exposure to diesel exhaust was approximately 540 per million (i.e., 540 cancers per million people) as compared to a total risk for exposure to all ambient air toxics of 760 per million. This estimate of risk from diesel exhaust, which accounts for approximately 70 percent of the total risk from TACs, included both urban and rural areas in the state. This calculation can be considered as an average worst-case for the state, since it assumes constant exposure to outdoor concentrations of diesel exhaust and does not account for expected lower concentrations indoors, where most people spend most of their time.

Health Risks for Sensitive Land Uses Relative to Freeways and Stationary Sources

The California Environmental Protection Agency and California Air Resources Board, in their Air Quality and Land Use Handbook: A Community Health Perspective (2005), recommend standards for sensitive land uses relative to stationary sources and roads.[6] The handbook recommends that sensitive uses, such as residences, schools, day care centers, playgrounds, and medical facilities be located at least 500 feet from a freeway, urban roadways with 100,000 vehicles/day, or rural roadways with 50,000 vehicles, with some exceptions. The handbook also provides recommendations for siting sensitive uses near stationary sources, such as distribution centers (1,000 feet), rail yards (1,000 feet), chrome platers (1,000 feet), dry cleaners using perchloroethylene (300 feet), and large gas stations (defined as a facility with a throughput of 3.6 million gallons per year or greater) (300 feet).

West Oakland Health Risks

In 2008, CARB and BAAQMD conducted a health risk assessment (HRA) to understand the emissions pattern and the potential public health risk from exposures to DPM from sources related to activities at the Maritime Port of Oakland and other significant sources of diesel exhaust in and near the West Oakland community. The HRA found that West Oakland is exposed to DPM concentrations almost three times higher than the Bay Area average background concentration, and that much of downtown Oakland—including the Planning Area—is exposed to elevated DPM levels from the same sources such that the estimated additional cancer risk for residents is about 500 per million. Additional detail is available in the HRA document.[7]

Odorous Emissions

Though offensive odors from stationary sources rarely cause any physical harm, they 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

[5] California Air Resources Board (ARB). Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles. October 2000.

[6] California Air Resources Board (ARB) and California Environmental Protection Agency. Air Quality and Land Use Handbook: A Community Perspective. April, 2005.

[7] California Air Resources Board, California Environmental Protection Agency. Diesel Particulate Matter Health Risk Assessment for the West Oakland Community: Preliminary Summary of Results. March, 2008. The report is available at http://www.arb.ca.gov/ch/communities/ra/westoakland/westoakland.htm.

direction; and the sensitivity of receptors. Generally, increasing the distance between the receptor and the source will mitigate odor impacts.

Sensitive Receptors

Some persons are considered more sensitive than others to air pollutants. Reasons for heightened sensitivity may include pre-existing health problems, proximity to emissions source, and duration of exposure to air pollutants. Land uses such as schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because the very young, the old, and the infirm are more susceptible to respiratory infections and other air-quality-related health problems than the general public. Residential areas are also sensitive to poor air quality because people usually stay home for extended periods of time. Existing sensitive receptors in the Planning Area include multiple schools, senior centers, and residential areas within and in close proximity to the Planning Area in all directions.

REGULATORY SETTING

Federal

The Federal Clean Air Act (FCAA) was enacted in 1970 and was last amended in 1990 (United States Code Title 42, Chapter 85). The FCAA requires the EPA to identify National Ambient Air Quality Standards (NAAQS or national standards) to protect public health and welfare. National standards have been established for all the criteria air pollutants described above. **Table 3.3-3** shows current national and State ambient air quality standards and provides a brief description of principal sources for each pollutant. Pursuant to the 1990 FCAAA, the EPA classifies air basins (or portions thereof) as "attainment" or "nonattainment" for each criteria air pollutant, based on whether or not the NAAQS had been achieved.

The FCAA requires each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The FCAAA added requirements for states containing areas that violate the NAAQS to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is a living document that is periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The EPA has responsibility to review all state SIPs to determine if they conform to the mandates of the FCAAA and will achieve air quality goals when implemented. If the EPA determines a SIP to be inadequate, it may prepare a Federal Implementation Plan (FIP) for the nonattainment area and may impose additional control measures. Failure to submit an approvable SIP or to implement the plan within mandated timeframes can result in sanctions being applied to transportation funding and stationary air pollution sources in the air basin.

State

The EPA has delegated the authority to implement many of the federal programs to the states while retaining an oversight role to ensure that the programs continue to be implemented. In California, the California Air Resources Board (ARB) manages air quality, regulates mobile emissions sources, and oversees the activities of county Air Pollution Control Districts and regional Air Quality Management Districts. ARB develops and manages the California SIP, securing approval of this plan from the EPA, and identifying TACs. (A notable exception exists for radioactive air contaminants as the EPA has retained its authority to enforce National Emission Standards for Hazardous Air Pollutants [NESHAP] requirements.) ARB establishes and reviews State ambient air quality standards and vehicle emissions standards. California has adopted ambient standards that are more stringent than the federal standards for

criteria air pollutants. Under the California Clean Air Act, patterned after the Federal Clean Air Act, areas have been designated as attainment or nonattainment with respect to the State standards. Local and regional air districts are required to prepare and adopt air quality attainment plans if the district violates the state standards.

Thus, areas in California have two sets of attainment / non-attainment designations: one set with respect to the national standards and one set with respect to the state standards. The Bay Area is currently designated "non-attainment" for state one-hour and eight-hour ozone standards, the national eight-hour ozone standard and for the state PM_{10} and $PM_{2.5}$ standards. The Bay Area is "in attainment" or "unclassified" with respect to the other ambient air quality standards. **Table 3.3-3** also shows the attainment status of the Bay Area with respect to the national and state ambient air quality standards for different criteria pollutants.

Table 3.3-3: Ambient Air Quality Standards and Bay Area Attainment Status

Pollutant	*Averaging Time*	*State Standard*	*California Standard Attainment Status*	*Federal Primary Standard*	*Federal Standard Attainment Status*	*Major Pollutant Sources*
Ozone	8 hours	0.07 ppm	Non-attainment	0.075 ppm	Non-attainment	On-road motor vehicles, solvent evaporation, and commercial/ industrial mobile equipment
	1 hour	0.09 ppm	Non-attainment	---	---	
Carbon Monoxide	8 hours	9.0 ppm	Attainment	9 ppm	Attainment	Internal combustion engines, primarily gasoline-powered motor vehicles
	1 Hour	20 ppm	Attainment	35 ppm	Attainment	
Nitrogen Dioxide	Annual Average	0.03 ppm	---	0.053 ppm	Attainment	Motor vehicles, petroleum refining operations, industrial sources, aircraft, ships, and railroads
	1 Hour	0.18 ppm	Attainment	---	Unclassified	
Sulfur Dioxide	Annual Arithmetic Mean	---	---	0.03 ppm	Attainment	Fuel combustion, chemical plants, sulfur recovery plants, diesel engines and metal processing
	24 Hours	0.04 ppm	Attainment	0.14 ppm	Attainment	
	1 Hour	0.25 ppm	Attainment	0.075	---	
Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 $\mu g/m^3$	Non-attainment	---	---	Dust- and fume-producing industrial and agricultural operations, combustion, atmospheric

Table 3.3-3: Ambient Air Quality Standards and Bay Area Attainment Status

Pollutant	*Averaging Time*	*State Standard*	*California Standard Attainment Status*	*Federal Primary Standard*	*Federal Standard Attainment Status*	*Major Pollutant Sources*
	24 Hours	50 $\mu g/m^3$	Non-attainment	150 $\mu g/m^3$	Unclassified	photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays)
Particulate Matter ($PM_{2.5}$)	Annual Arithmetic Mean	12 $\mu g/m^3$	Non-attainment	15 $\mu g/m^3$	Attainment	Fuel combustion in motor vehicles, equipment, and industrial sources; residential and agricultural burning
	24 Hours	---	---	35 $\mu g/m^3$	Non-attainment	
Lead	Calendar Quarter	---	---	1.5 $\mu g/m^3$	Attainment	Present source: lead smelters, battery manufacturing & recycling facilities; Past source: combustion of leaded gasoline.
	30 Day Average	1.5 $\mu g/m^3$	Attainment	---	---	
	Rolling 3 Month Average	---	---	0.15 $\mu g/m^3$	---	

Note: ppm=parts per million; and $\mu g/m^3$=micrograms per cubic meter

Source: Bay Area Air Quality Management District, 20128, available at http://hank.baaqmd.gov/pln/air_quality/ambient_air_quality.htm, accessed August 27, 2012; California Air Resources Board, ARB Fact Sheet: Air Pollution Sources, Effects and Control, http://www.arb.ca.gov/research/health/fs/fs2/fs2.htm, page last updated December 2009, accessed August 27, 2012

Toxic Air Contaminants (TACs)

California State law defines TACs as air pollutants which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health. The State of California's regulatory efforts regarding the identification and control of toxic air contaminants are embodied in AB 1807, the Tanner Bill (effective 1984).

The Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588) seeks to identify and evaluate risks from air toxics sources, notify nearby residents of significant risks, and to reduce those significant risks to acceptable levels; however, AB 2588 does not regulate air toxics emissions. TAC emissions from individual facilities are quantified and prioritized. ARB identifies the most important toxic pollutants by considering risk of harm to public health, amount or potential amount of emissions, manner of usage of the substance, its persistence in the atmosphere, and its concentration in the outdoor air. In 1992, the "Hot Spots" Act was amended by Senate Bill 1731 which required facilities that pose a significant health risk to the community to reduce their risk through a risk management plan.

California Green Building Standards Code (CALGreen)

CALGreen is the green building code specific to the state of California, adopted in January 2010 and effective as of January 2011 for residential and non-residential new construction projects. This code aims to improve safety, health and general welfare of the public in California by reducing the negative impacts of construction and buildings on the environment and encouraging sustainable construction practices. Through the promotion of sustainable planning and design, energy efficiency, water efficiency and conversion, material conversion and resources efficiency and environmental quality, CALGreen aims to support a high standard for green buildings in California and lower the overall impacts that buildings pose on the environment. The code is composed of mandatory measures that must be implemented by local jurisdictions as well as voluntary measures called Tiers.

Regional

The regional air quality management district for the Bay Area is the Bay Area Air Quality Management District (BAAQMD). The district is primarily responsible for regulating stationary emissions sources at facilities within its geographic areas and for preparing the air quality plans that are required under the federal Clean Air Act and California Clean Air Act.

Air Quality Plans

The 1977 Clean Air Act Amendments require that regional planning and air pollution control agencies prepare a regional Air Quality Plan to outline the measures by which both stationary and mobile sources of pollutants can be controlled in order to achieve all standards specified in the Clean Air Act. The 1988 California Clean Air Act also requires development of air quality plans and strategies to meet state air quality standards in areas designated as non-attainment (with the exception of areas designated as non-attainment for the state PM standards). Maintenance plans are required for attainment areas that had previously been designated non-attainment in order to ensure continued attainment of the standards.

For state air quality planning purposes, the Bay Area is classified as a serious non-attainment area for ozone. The "serious" classification triggers various plan submittal requirements and transportation performance standards. One such requirement is that the Bay Area update the Clean Air Plan (CAP) every three years to reflect progress in meeting the air quality standards and to incorporate new information regarding the feasibility of control measures and new emission inventory data. The Bay Area's record of progress in implementing previous measures must also be reviewed. Bay Area plans are prepared with the cooperation of the Metropolitan Transportation Commission (MTC), and the Association of Bay Area Governments (ABAG).

The current designation of the Bay Area's non-attainment with respect to the national eight-hour ozone standard is based on the now defunct 0.08-ppm eight-hour standard. In April 2004, the U.S. EPA designated the Bay Area as a "marginal" non-attainment area according to five classes of non-attainment areas for ozone, which range from marginal to extreme. Marginal non-attainment areas were not required to prepare attainment demonstrations for the eight-hour standard though other planning elements were required. The Bay Area was to address all requirements of the national eight-hour standard in subsequent documents. However, effective May 27, 2008, the EPA lowered the national eight-hour standard from 0.08 to 0.075 ppm. Subsequently, as of April 2012, the EPA issued the final area designations and classifications for the 2008 (0.075 ppm) eight-hour ozone standard. The San Francisco Bay Area continues to be identified as "marginal" non-attainment.

Bay Area 2010 Clean Air Plan

On September 15, 2010, the BAAQMD, in cooperation with MTC, BCDC, and ABAG, adopted the most recent version of the CAP, the Bay Area 2010 Clean Air Plan. The CAP outlines a multi-pollutant approach for addressing ozone, particulate matter, air toxics, and greenhouse gas emission reductions in a single, integrated strategy. The Bay Area 2010 Clean Air Plan serves to:

- Update the Bay Area 2005 Ozone Strategy in accordance with the requirements of the California Clean Air Act to implement "all feasible measures" to reduce ozone;
- Provide a control strategy to reduce ozone, PM, air toxics and greenhouse gases in a single, integrated plan;
- Review progress in improving air quality in recent years; and
- And establish emission control measures to be adopted or implemented in the 2010-2012 time frame.[8]

The primary objectives of the CAP are to attain the ambient air quality standards, protect public health, and minimize climate change impacts. The CAP is a voluntary initiative by the BAAQMD, and it does not respond to federal requirements for attainment planning. However, it lays the groundwork for future $PM_{2.5}$ attainment planning and the continuing effort to attain the ozone standards. The CAP is a roadmap showing how the San Francisco Bay Area will achieve compliance with ozone standards as expeditiously as practicable, and how the region will reduce the transport of ozone and ozone precursors to neighboring air basins. The CAP represents the Bay Area's most recent triennial assessment of the region's strategy to attain the state ozone standards. The CAP includes transportation control measures (TCMs) to improve transit services, encourage sustainable travel behavior, support focused growth, and implement pricing strategies.

The TCMs in the CAP that are relevant to the proposed Plan include:

- TCM A-1: Improve Local and Area-wide Bus Service
- TCM A-2: Improve Local & Regional Rail Service
- TCM B-2: Improve Transit Efficiency and Use
- TCM B-4: Goods Movement Improvements and Emission Reduction Strategies
- TCM C-1: Support Voluntary Employer-Based Trip Reduction Programs
- TCM C-2: Implement Safe Routes to Schools and Safe Routes to Transit
- TCM C-3: Promote Rideshare Services and Incentives
- TCM D-1: Improve Bicycle Access and Facilities
- TCM D-2: Improve Pedestrian Access and Facilities
- TCM D-3: Support Local Land Use Strategies

[8] Bay Area Air Quality Management District, Bay Area 2010 Clean Air Plan, accessed August 17, 2012, http://www.baaqmd.gov/Divisions/Planning-and-Research/Plans/Clean-Air-Plans.aspx.

- TCM E-2: Parking Pricing and Management Strategies

The CAP also includes land use and local impact measures (LUMs) to promote mixed-use, compact development and to ensure that focused growth protects people from exposure to air pollution. The LUMs in the CAP that are relevant to the proposed Plan include:

- LUM 1: Goods Movement
- LUM 3: Enhanced CEQA Program
- LUM 4: Land Use Guidelines
- LUM 5: Reduce Risk in Impacted Communities

BAAQMD CEQA Air Quality Guidelines

In 2010, the BAAQMD's Board of Directors adopted the CEQA Air Quality Guidelines and Thresholds of Significance (BAAQMD, Revised 2011) as an effort to assist lead agencies in evaluating air quality impacts of projects and plans proposed in the San Francisco Bay Area Air Basin. In response to a legal challenge, the BAAQMD no longer recommends the thresholds be used as a generally applicable measure of significant impacts.[9]

However, the BAAQMD CEQA Air Quality Guidelines include recommendations for analysis procedures and an Appendix D (Threshold of Significance Justification); the BAAQMD also prepared detailed documentation for CEQA thresholds prior to its 2010 adoption of the guidelines (BAAQMD, 2010). The City of Oakland (Planning, Building, and Neighborhood Preservation Department), as the lead agency, used this documentation as evidence in developing thresholds of significance for criteria air pollutants and community risk and hazards that are identified in the Impact Analysis, below. The preparers of this EIR have reviewed the evidence used to formulate the BAAQMD CEQA Guidelines including BAAQMD's May 2010 staff report recommending the adoption of the thresholds and its attachments, and conclude that substantial evidence supports the continued use of BAAQMD's 2010 thresholds of significance as a basis for the City's thresholds of significance for air quality and greenhouse gas impacts in this EIR.

BAAQMD Rules and Regulations

BAAQMD is the regional agency responsible for rulemaking, permitting, and enforcement activities affecting stationary sources in the Bay Area. Specific rules and regulations adopted by BAAQMD limit the emissions that can be generated by various uses and/or activities, and identify specific pollution reduction measures that must be implemented in association with various uses and activities. These rules regulate not only emissions of the six criteria air pollutants, but also toxic emissions and acutely hazardous non-radioactive materials emissions.

Emissions sources subject to these rules are regulated through the BAAQMD's permitting process and standards of operation. Through this permitting process, including an annual permit review, the BAAQMD monitors generation of stationary emissions and uses this information in developing its air quality plans. Any sources of stationary emissions constructed as part of the proposed Station Area Plan

[9] The BAAQMD describes the status of its CEQA Guidelines at: http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Updated-CEQA-Guidelines.aspx. The May 2010 staff report can also be found here.

would be subject to the BAAQMD Rules and Regulations. Both federal and state ozone plans rely heavily upon stationary source control measures set forth in BAAQMD's Rules and Regulations.

New Source Review

The BAAQMD's New Source Review regulations predominantly apply to non-attainment pollutants. The purpose of the New Source Review rule is to provide for the review of new and modified sources and provide mechanisms, including the use of best available control technology for both criteria and toxic air pollutants, and emissions offsets by which authorities to construct such sources could be granted. The New Source Review regulations also include Prevention of Significant Deterioration (PSD) rules for attainment pollutants. PSD rules are designed to ensure that the emission sources will not cause or interfere with the attainment or maintenance of ambient air quality standards.

With respect to the construction phase of the proposed Plan, applicable BAAQMD regulations would relate to portable equipment (e.g., Portland concrete batch plants, and gasoline- or diesel-powered engines used for power generation, pumps, compressors, pile drivers, and cranes), architectural coatings, and paving materials. Equipment used during project construction would be subject to the requirements of BAAQMD Regulation 2 (Permits), Rule 1 (General Requirements) with respect to portable equipment unless exempt under Rule 2-1-105 (Exemption, Registered Statewide Portable Equipment); BAAQMD Regulation 8 (Organic Compounds), Rule 3 (Architectural Coatings); and BAAQMD Regulation 8 (Organic Compounds), Rule 15 (Emulsified and Liquid Asphalts). With respect to the operational phase of the proposed Plan, BAAQMD Regulation 2, Permits would apply to new or modified stationary sources proposed in the Planning Area.

Local

Green Building Ordinance

The Green Building Ordinance was adopted by the City of Oakland in 2005, in conjunction with the Sustainable Communities Initiative of 1998, in order to maintain high standards of green development and new construction throughout the City. This ordinance requires green performance in major civic projects and provides policies to assist private development projects in improving green performance.

In October of 2010, the city adopted the Green Building Ordinance for Private Development Projects. The ordinance affects a wide range of projects from new construction of single- and multi-family residential as well as non-residential projects, additions and alterations, modifications or demolition of historic resources, construction of affordable housing and mixed-use projects, as well as projects requiring a landscape plan. Projects that are affected based on defined thresholds in the ordinance include:

- Residential and non-residential new construction, additions and alterations;
- Removal of a historic resource and new construction;
- Historic residential and non-residential additions and alterations;
- Mixed use construction; and
- Construction requiring a landscape plan.

Certain types of projects are required to receive certification through a non-governmental green rating agency, including:

- All new residential construction and residential additions or alterations over 1,000 square feet, certified through Built It Green's GreenPoint Rated program.
- All new non-residential construction and non-residential additions or alterations.

In addition to Oakland's local Green Building Ordinance, the state of California recently adopted the new Green Building Code known as CALGreen (described above). Both the City's local ordinance and CALGreen are now in effect.

City of Oakland Municipal Code

Chapter 15.34 of Oakland's Municipal Code addresses Construction and Demolition Debris Waste Reduction and Recycling Requirements. This Chapter requires projects to submit a Construction and Demolition Waste Reduction Plan for review and approval. As a result, construction-related truck traffic, which primarily have diesel fueled engines, would be reduced, since demolition debris hauled off site would be reused on site. In addition, reuse of concrete, asphalt, and other debris would reduce the amount of material introduced to area landfills.

City of Oakland General Plan

The Oakland General includes several policies related to air quality.

Land Use and Transportation Element (LUTE)

The LUTE of the Oakland General Plan contains the following policies that address issues related to GHG Emissions and Climate Change:

Objective T2: **Provide mixed use, Transit-Oriented Development that encourages public transit use and increases pedestrian and bicycle trips at major transportation nodes.**

Policy T.2.1: **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.

Policy T.2.2: **Guiding Transit-Oriented Development.** 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.

Policy T2.5: **Linking Transportation Activities.** Link transportation facilities and infrastructure improvements to recreational uses, job centers, commercial nodes, and social services (i.e., hospitals, parks, or community centers).

Policy T3.2: **Promoting Strategies to Address Congestion.** The city should promote and participate in both local and regional strategies to manage traffic supply and demand where unacceptable levels of service exist or are forecast to exist.

Policy T3.5: **Including Bikeways and Pedestrian Walks.** The City should include bikeways and pedestrian ways in the planning of new, reconstructed, or realigned streets, wherever possible.

Policy T3.6: **Encouraging Transit.** 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.

Policy T3.7: **Resolving Transportation Conflicts.** The city, in constructing and maintaining its transportation infrastructure, shall resolve any conflicts between public transit and single occupant vehicles in favor of the transportation mode that has the potential to provide the greatest mobility and access for people, rather than vehicles, giving due consideration to the environment, public safety, economic development, health, and social equity impacts.

Policy T4.1: **Incorporating Design Features for Alternative Travel.** The City will require new development, rebuilding, or retrofit to incorporate design features in their projects that encourage use of alternative modes of transportation such as transit, bicycling, and walking.

Policy T4.2: **Creating Transportation Incentives.** Through cooperation with other agencies, the City should create incentives to encourage travelers to use alternative transportation options.

Policy T4.3: **Reducing Waiting Times.** The City should encourage transit operators to reduce waiting times for users by coordinating schedules and maintaining intervals of fifteen (15) minutes or less between buses during daytime periods.

Policy T4.4: **Developing Light Rail or Electric Trolley.** The City supports the development of light rail or trolley bus along Regional Transit streets in high travel demand on corridors.

Policy T4.5: **Preparing a Bicycle and Pedestrian Master Plan.** The City should prepare, adopt, and implement a Bicycle and Pedestrian Master Plan as a part of the Transportation Element of [the] General Plan.

Policy T4.6: **Making Transportation Accessible for Everyone.** Alternative modes of transportation should be accessible for all of Oakland's population. Including the elderly, disable, and disadvantaged.

Policy T4.7: **Reusing Abandoned Rail Lines.** Where rail lines (including sidings and spurs) are to be abandoned, first consideration should be given to acquiring the line for transportation and recreational uses, such as bikeways, footpaths, or public transit.

Policy T6.1: **Posting Maximum Speeds.** Collector streets shall be posted at a maximum speed (usually a maximum speed of 25 miles per hour), except where a lower speed is dictated by safety and allowable by law.

Policy T6.2: **Improving Streetscapes.** The City should make major efforts to improve the visual quality of streetscapes. Design of the streetscape, particularly in neighborhoods and commercial centers, should be pedestrian-oriented and include lighting, directional signs, trees, benches and other support facilities.

Policy T6.3: **Making the Waterfront Accessible.** The waterfront should be made accessible to the pedestrians and bicyclists in Oakland's neighborhoods.

Policy D3.2: **Incorporating Parking Facilities.** 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.

Policy D10.6: **Creating Infill Housing.** Infill housing that respects surrounding development and the streetscape should be encouraged in the downtown to strengthen or create distinct districts.

Policy D11.1: **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.

Policy N3.2: **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.

Policy W12.4: **Higher residential densities should be permitted in appropriate areas along the estuary where design and development intensity allows for the preservation of public views, vistas, open space, and waterfront access.** Access to transportation corridors and transit should be promoted.

The LUTE also accounts for the air quality considerations of land use compatibility decisions with an objective to minimize land use compatibility conflicts (Objective I/C4) including the following policies:

Policy I/C4.1: 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.

Policy I/C4.2: Minimizing Nuisances. The potential for new or existing industrial or commercial uses, including seaport and airport activities, to create nuisance impacts on surrounding residential land uses should be minimized through appropriate siting and efficient implementation and enforcement of environmental and development controls.

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.

Open Space Conservation and Recreation Element (OSCAR)

The OSCAR includes the following policies related to air quality:

Policy CO-12.1: Land Use Patterns Which Promote Air Quality. Promote land use patterns and densities which help improve regional air quality conditions by: (a) minimizing dependence on single passenger autos; (b) promoting projects which minimize quick auto starts and stops, such as live-work development, mixed use development, and office development with ground floor retail space; (c) separating land uses which are sensitive to pollution from the sources of air pollution; and (d) supporting telecommuting, flexible work hours, and behavioral changes which reduce the percentage of people in Oakland who must drive to work on a daily basis.

Policy CO-12.2: Coordinated Transportation Systems. Maintain a coordinated bus, rail, and ferry transit system which provides efficient service to major destinations and promotes alternatives to the single passenger auto.

Policy CO-12.3: Transportation Systems Management. Expand existing transportation systems management and transportation demand management strategies which reduce congestion, vehicle idling, and travel in single passenger autos.

Policy CO-12.4: Design of Development to Minimize Air Quality Impacts. Require that development projects be designed in a manner which reduces potential adverse air quality impacts. This may include: (a) the use of vegetation and landscaping to absorb carbon monoxide and to buffer sensitive receptors; (b) the use of low-polluting energy sources and energy conservation measures; (c) designs which encourage transit use and facilitate bicycle and pedestrian travel.

Policy CO-12.5: Use of Best Available Control Technology. Require new industry to use best available control technology to remove pollutants, including filtering, washing, or electrostatic treatment of emissions.

Policy CO-12.6: Control of Dust Emissions. Require construction, demolition, and grading practices which minimize dust emissions.

These practices are currently required by the City and include the following:

- Avoiding earth moving and other major dust generating activities on windy days.
- Sprinkling unpaved construction areas with water during excavation, using reclaimed water where feasible. (Watering can reduce construction-related dust by 50 percent.)
- Covering stockpiled sand, soil, and other particulates with a tarp to avoid blowing dust.
- Covering trucks hauling dirt and debris to reduce spills. If spills do occur, they should be swept up promptly before materials become airborne.

- Preparing a comprehensive dust control program for major construction in populated areas or adjacent to sensitive uses like hospitals and schools.
- Operating construction and earth-moving equipment, including trucks, to minimize exhaust emissions.

Policy CO-12.7: Regional Air Quality Planning. Coordinate local air quality planning efforts with other agencies, including adjoining cities and counties and the public agencies responsible for monitoring and improving air quality. Cooperate with regional agencies such as the BAAQMD, the MTC, the ABAG, and the Alameda County Congestion Management Agency in developing and implementing regional air quality strategies. Continue to work with BAAQMD and the California Air Resources Board in enforcing the provisions of the California and Federal Clean Air Acts, including the monitoring of air pollutants on a regular and on-going basis.

City of Oakland's Standard and Uniformly Applied Conditions of Approval

The City of Oakland's Standard and Uniformly Applied Conditions of Approval (Standard Conditions of Approval) would apply to development under the proposed Plan.

SCA-A. Construction-Related Air Pollution Controls (Dust and Equipment Emissions)[10]

Ongoing throughout demolition, grading, and/or construction

During construction, the project applicant shall require the construction contractor to implement all of the following applicable measures recommended by the Bay Area Air Quality Management District (BAAQMD):

BASIC[11]

a. Water all exposed surfaces of active construction areas at least twice daily (using reclaimed water if possible). Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever possible.

b. Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer).

c. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

d. Pave all roadways, driveways, sidewalks, etc. as soon as feasible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.

e. Enclose, cover, water twice daily or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.).

[10] Note: This SCA replaces the 2008 SCAs for Dust Control (SCA 26) and Construction Emissions (SCA 27) and applies to ALL construction projects.

[11] Applies to ALL construction sites.

f. Limit vehicle speeds on unpaved roads to 15 miles per hour.

g. Idling times shall be minimized either by shutting equipment off when not is use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485, of the California Code of Regulations. Clear signage to this effect shall be provided for construction workers at all access points.

h. All construction equipment shall be maintained and properly tuned in accordance with the manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

i. Post a publicly visible sign that includes the contractor's name and telephone number to contact regarding dust complaints. When contacted, the contractor shall respond and take corrective action within 48 hours. The telephone numbers of contacts at the City and the BAAQMD shall also be visible. This information may be posted on other required on-site signage.

ENHANCED[12]

a. All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe.

b. All excavation, grading, and demolition activities shall be suspended when average wind speeds exceed 20 mph.

c. Install sandbags or other erosion control measures to prevent silt runoff to public roadways.

d. Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for one month or more).

e. Designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress.

f. Install appropriate wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of the construction site to minimize wind blown dust. Wind breaks must have a maximum 50 percent air porosity.

g. Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.

h. The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time.

i. All trucks and equipment, including tires, shall be washed off prior to leaving the site.

[12] All "Basic" controls listed above plus the following controls if the project involves:

1. 114 or more single-family dwelling units;
2. 240 or more multi-family units;
3. Nonresidential uses that exceed the applicable screening size listed in the Bay Area Air Quality Management District's CEQA Guidelines;
4. Demolition permit;
5. Simultaneous occurrence of more than two construction phases (e.g., grading and building construction occurring simultaneously);
6. Extensive site preparation (i.e., the construction site is four acres or more in size); or
7. Extensive soil transport (i.e., 10,000 or more cubic yards of soil import/export).

j. Site accesses to a distance of 100 feet from the paved road shall be treated with a 6 to 12 inch compacted layer of wood chips, mulch, or gravel.

k. Minimize the idling time of diesel-powered construction equipment to two minutes.

l. The project applicant shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NOx reduction and 45 percent particulate matter (PM) reduction compared to the most recent California Air Resources Board (CARB) fleet average. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as they become available.

m. Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., BAAQMD Regulation 8, Rule 3: Architectural Coatings).

n. All construction equipment, diesel trucks, and generators shall be equipped with Best Available Control Technology for emission reductions of NOx and PM.

o. Off-road heavy diesel engines shall meet the CARB's most recent certification standard.

SCA-B. Exposure to Air Pollution (Toxic Air Contaminants)[13]

Prior to issuance of a demolition, grading, or building permit

a. **Health Risk Reduction Measures.** Requirement: The project applicant shall incorporate appropriate measures into the project design in order to reduce the potential health risk due to exposure to toxic air contaminants. The project applicant shall choose **one** of the following methods:

   i. The project applicant shall retain a qualified air quality consultant to prepare a health risk assessment (HRA) in accordance with the California Air Resources Board (CARB) and the Office of Environmental Health and Hazard Assessment requirements to determine the health risk of exposure of project residents/occupants/users to air pollutants. The HRA shall be submitted to the City for review and approval. If the HRA concludes that the health risk is at

[13] Note: This SCA replaces the 2008 SCAs for Indoor Air Quality (SCA 94) and Air Pollution Buffering for Private Open Space (SCA 95). It has been revised to incorporate BAAQMD mitigations from the Plan Bay Area EIR. The SCA applies if ALL of the following criteria are met:

1. The project involves any of the following sensitive land uses:
   a. New residential facilities or new dwelling units; or
   b. New or expanded schools, daycare centers, parks, nursing homes, or medical facilities; and
2. The project is located within 1,000' of one or more of the following sources of particulate matter (PM):
   a. Freeway;
   b. Roadway with significant traffic (at least 10,000 vehicles/day);
   c. Rail line (except BART) with over 30 trains per day;
   d. Distribution center that accommodates more than 100 trucks per day, more than 40 trucks with operating refrigeration units (TRU) per day, or where the TRU unit operations exceed 300 hours per week;
   e. Major rail or truck yard (such as the Union Pacific rail yard adjacent to the Port of Oakland);
   f. Ferry terminal
   g. The Port of Oakland; or
   h. Stationary pollutant source requiring a permit from BAAQMD (such as a diesel generator); and
3. The project exceeds the health risk screening criteria after a screening analysis is conducted in accordance with the Bay Area Air Quality Management (BAAQMD) CEQA Guidelines.

or below acceptable levels, then health risk reduction measures are not required. If the HRA concludes the health risk exceeds acceptable levels, health risk reduction measures shall be identified to reduce the health risk to acceptable levels. Identified risk reduction measures shall be included on the project drawings submitted for the construction-related permit for City review and approval.

ii. The project applicant shall incorporate the following health risk reduction measures into the project. These features shall be included on the project drawings submitted for the construction-related permit for City review and approval or on other documentation submitted to the City for review and approval.

- Installation of air filtration to reduce cancer risks and particulate patter (PM) exposure for residents, and other sensitive populations, in the project that are in close proximity to sources of air pollution. Air filter devices shall be rated MERV-13 or higher. As part of implementing this measure, an ongoing maintenance plan for the building's HVAC air filtration system shall be required.
- Phasing of residential developments when proposed within 500 feet of freeways such that homes nearest the freeway are built last, if feasible.
- The project shall be designed to locate sensitive receptors as far away as feasible from the source(s) of air pollution. Operable windows, balconies, and building air intakes shall be located as far away from these sources as feasible. If near a distribution center, residents shall not be located immediately adjacent to a loading dock or where trucks concentrate to deliver goods, if feasible.
- Sensitive receptors shall not be located on the ground floor, if feasible.
- Planting trees and/or vegetation between sensitive receptors and pollution source, if feasible. Trees that are best suited to trapping PM shall be planted, including one or more of the following: Pine (*Pinus nigra* var. *maritima*), Cypress (*X Cupressocyparis leylandii*), Hybrid popular (*Populus deltoids X trichocarpa*), and Redwood *(Sequoia sempervirens*).
- Within the project site, sensitive receptors shall be located as far away from truck activity areas, such as loading docks and delivery areas, as feasible.
- Within the project site, existing and new diesel generators shall meet CARB's Tier 4 emission standards.
- Within the project site, emissions from diesel trucks shall be reduced through implementing the following measures, if feasible:
    - Installing electrical hook-ups for diesel trucks at loading docks.
    - Requiring trucks to use Transportation Refrigeration Units (TRU) that meet Tier 4 emission standards.
    - Requiring truck-intensive projects to use advanced exhaust technology (e.g. hybrid) or alternative fuels.
    - Prohibiting trucks from idling for more than two minutes.
    - Establishing truck routes to avoid sensitive receptors in the project. A truck route program, along with truck calming, parking, and delivery restrictions, shall be implemented.

When Required: Prior to approval of construction-related permit
Initial Approval: Planning and Zoning Division
Monitoring/Inspection: Building Services Division

b. **Maintenance of Health Risk Reduction Measures.** Requirement: The project applicant shall maintain, repair, and/or replace installed health risk reduction measures, including but not limited to the HV system (if applicable), on an ongoing and as-needed basis. Prior to occupancy, the project applicant shall prepare and then distribute to the building manager/operator an operation and maintenance manual for the HV system and filter including the maintenance and replacement schedule for the filter.

When Required: Ongoing
Initial Approval Authority: N/A
Monitoring/Inspection/Enforcement: Building Services Division, Code Enforcement

FINDINGS OF THE HOUSING ELEMENT EIR

The Housing Element EIR (Final EIR, November 2010) analyzed criteria air pollutants and precursors based on consistency with the current Clean Air Plan (less than significant, AQ-1); the impact of exposing new sensitive receptors to substantial pollutant concentrations by placing sensitive land uses (residential) near sources of toxic air contaminants; and the impact of exposing new sensitive receptors to substantial objectionable odors affecting a substantial number of people.

The Housing Element EIR concluded that implementation of the recommendations of a project-specific health risk assessment (as required by SCAs) would reduce local toxic air contaminant exposures to acceptable levels for diesel particulate matter (DPM) from stationary and mobile sources, resulting in less than significant impacts at the plan- and project-level (AQ-2a and AQ4a). However, for the plan- and project-level of analysis, the Housing Element EIR concluded that implementation of the recommendations of a project-specific health risk assessment may not reduce local toxic air contaminant exposures to acceptable levels for gaseous TACs, and that the residual air pollution risk and hazard could have significant unavoidable impacts (AQ-2b and AQ4b).

The analysis in the Housing Element EIR found that all locations within the Housing Element Plan Area are less than one mile from a potential odor source, such as food processing facilities, painting/coating operations, or green waste/recycling facilities (see **Figure 3.3-8** of the Housing Element EIR). The Housing Element EIR presents a reasonable estimation of all the odor sources within the City of Oakland, based upon business tax records, and it shows buffer zones around the identified sources based on BAAQMD recommendations. Nearly the entire City of Oakland, and all of the Housing Element Plan Area, could be exposed to nuisance odor impacts due to potentially incompatible land uses. The Housing Element EIR analyzed this impact (as Impact AQ-3 and AQ-5 in the Housing Element EIR) and concluded that odor sources present in all high density areas of the City of Oakland could potentially expose residences to substantial/frequent odor. The Housing Element EIR concluded that this effect was significant and unavoidable at the plan- and project-level of analyses. Details on the Housing Element EIR are included in Chapter 1.

Impact Analysis

THRESHOLDS OF SIGNIFICANCE

The EIR evaluates plan-level impacts related to potential conflicts with the Bay Area Clean Air Plan, consistent with City guidelines that identify plan-level thresholds for long-range planning documents,

such as general plans, redevelopment plans, specific plans, area plans, and community plans. This EIR analyzes plan-level impacts plus project-level impacts for TACs and odors.

The proposed Station Area Plan would have a significant impact on the environment if it would:

Plan-Level Impacts

1. Fundamentally conflict with the Bay Area Clean Air Plan (CAP) because the plan does not demonstrate reasonable efforts to implement control measures contained in the CAP;
2. Fundamentally conflict with the primary goals of the CAP;
3. Not include special overlay zones containing goals, policies, and objectives to minimize potential Toxic Air Contaminant (TAC) impacts in areas located (a) near existing and planned sources of TACs and (b) within 500 feet of freeways and high-volume roadways containing 100,000 or more average daily vehicle trips; or
4. Not identify existing and planned sources of odors with policies to reduce potential odor impacts.

Project-Level Impacts (TACs and odors only)

1. During either project construction or project operation expose persons by siting a new source or a new sensitive receptor to substantial levels of Toxic Air Contaminants (TACs) resulting in (a) a cancer risk level greater than 100 in one million, (b) a non-cancer risk (chronic or acute) hazard index greater than 10.0, or (c) an increase of annual average $PM_{2.5}$ of greater than 0.8 micrograms per cubic meter.
2. Frequently and for a substantial duration, create or expose sensitive receptors to substantial objectionable odors affecting a substantial number of people.

METHODOLOGY AND ASSUMPTIONS

The CAP lays the groundwork for future $PM_{2.5}$ attainment planning and is a roadmap showing how the San Francisco Bay Area will achieve compliance with ozone standards as expeditiously as practicable, and how the region will reduce the transport of ozone and ozone precursors to neighboring air basins. Threshold 1 assesses whether the proposed Station Area Plan fundamentally conflicts with the CAP by comparing the proposed Station Area Plan to transportation control measures (TCMs) and land use and local impact measures (LUMs) contained in the CAP.

Threshold 2 assesses whether the proposed Station Area Plan fundamentally conflicts with the CAP by comparing the rate of population growth to the rate of vehicle trip growth from the existing condition to the estimated future buildout of the proposed Plan in 2035.[14]

Threshold 3 (plan-level TAC analysis) is assessed by evaluating whether the necessary TAC overlay zones are included in the proposed Plan, and whether the proposed Plan identifies goals, policies and objectives to minimize potential impacts. The project level impact analysis evaluates potential exposure to TACs based on information available from the BAAQMD including the location and associated risks of stationary sources, as well as the extent of existing roadway and freeway risks. For cancer health effects,

[14] Note that the assessment uses the vehicle trips option from the threshold and does not include an evaluation of the projected rate of increase in vehicle miles traveled.

the risk is expressed as the number of chances in a population of a million people who might be expected to get cancer over a 70-year lifetime. The number may be stated as "10 in a million" or "10 chances per million." Therefore, if there is a potential cancer risk of 10 in a million, that means if one million people were exposed to a certain level of a pollutant or chemical there is a chance that 10 of them may develop cancer over their 70-year lifetime. This would be 10 new cases of cancer above the expected rate of cancer in the population. The expected rate of cancer for all causes, including smoking, is about 200,000 to 250,000 chances in a million (one in four to five people).[15] It is noted that CEQA requires the analysis of potential adverse effects of the proposed Plan on the environment. Potential effects of the environment on the proposed Plan are legally **not** required to be analyzed or mitigated under CEQA. However, this document nevertheless analyzes potential effects of the environment on the proposed Plan in order to provide information to the public and decision-makers. Where a potential significant effect of the environment on the proposed Plan is identified, the document, as appropriate, identifies City Standard Conditions of Approval and/or project-specific non-CEQA recommendations to address these issues.

Threshold 4 assesses whether the proposed Station Area Plan adequately identifies odor sources, goals, policies, and objectives to minimize potentially adverse impacts. The project level impact analysis is also conducted for odors, identifying the potential for exposure of sensitive receptors to substantial objectionable odors affecting a substantial number of people based on mapping completed for the Housing Element EIR.

SUMMARY OF IMPACTS

Implementation of the proposed Station Area Plan would include substantial new development of mid- and high-rise buildings, office, and retail uses. These uses would be subject to existing City policies as well as proposed Plan strategies and policies that ensure consistency with the CAP. New uses will also result in new trips and potential resultant air quality impacts. The proposed Plan would also locate new sensitive receptors in the Planning Area, which—as a highly urbanized area—has several existing sources of TACs as well as odor sources in the vicinity.

CEQA requires the analysis of potential adverse effects of the proposed Plan on the environment. Potential effects of the environment on the proposed Plan are not legally required to be analyzed or mitigated under CEQA. However, this document nevertheless analyzes potential effects of the environment on the proposed Plan in order to provide information to the public and decision-makers. Where a potential significant effect of the environment on the proposed Plan is identified, the document, as appropriate, identifies City SCA and/or project-specific non-CEQA recommendations to address these issues.

Impact AQ-1 – Clean Air Plan Consistency – Control Measures

Proposed Station Area Plan policies do not fundamentally conflict with relevant control strategies included in the Bay Area 2010 Clean Air Plan, resulting in a less than significant impact.

[15] California Air Resources Board, California Environmental Protection Agency. Diesel Particulate Matter Health Risk Assessment for the West Oakland Community: Preliminary Summary of Results. March, 2008.

Impact AQ-2 – Clean Air Plan Consistency – Primary Goals

Projections of PM peak hour vehicle trips indicate that implementation of the proposed Plan would result in an approximately 49 percent increase in vehicle trips while population growth would increase by 162 percent. Because the rate of increase in vehicle trips would be less than the rate of increase in population, the proposed Station Area Plan would not fundamentally conflict with primary goals of the Clean Air Plan related to vehicle trip and population growth, resulting in a less than significant impact.

Impact AQ-3 – Toxic Air Contaminants

The TAC analysis is conducted at the plan and project level. At the plan-level of analysis, the proposed Plan includes a diagram showing buffers surrounding freeways and high-volume roadways. City SCA B addresses the need for goals, policies and objectives to minimize potential impacts; these are noted in the proposed Plan and described in greater detail below for the project-level analysis.

At the project-level, this EIR finds that development projects facilitated by the proposed Plan could generate TACs during construction and could locate new residences or other sensitive receptors near existing mobile and stationary TAC sources. Further, new residential and office development may include emergency diesel generators, gasoline dispensing facilities, or boilers; however, these uses would be subject to BAAQMD's New Source Review regulations. For DPM-borne TACs, implementation of City of Oakland SCA B can reduce risk of exposure to an acceptable level through the combination of HRA followed by implementation of appropriate design measures to improve interior air quality. Therefore, at both the plan- and project-levels of evaluation, impacts related to DPM-borne TACs would be less than significant.

However, for TACs originating from gaseous sources, implementation of City of Oakland SCA B cannot with certainty reduce risks to an acceptable level. While the site planning and filtration methods noted within SCA B can capture/screen out airborne particulate matter, these methods do not reduce risks from gaseous TACs. There are no known feasible technologies or site planning considerations that have been shown to reduce risks of gaseous TACs. Therefore, impacts related to gaseous TACs would be significant and unavoidable.

Impact AQ-4 – Odors

The odor analysis is conducted at the plan and project level. While development facilitated by the proposed Station Area Plan would not include new sources of odors, numerous odor sources exist in and around the Planning Area, such that the entire Planning Area is within areas potentially subject to odors. Because the proposed Station Area Plan proposes new sensitive receptors within the Planning Area, and there are no available mitigation measures other than distance between sources and sensitive receptors (which is not feasible given the existing odor sources), a significant and unavoidable impact is found in relation to odors.

Impact AQ-5 – Cumulative Air Quality Impacts

The cumulative air quality analysis finds no significant cumulative impact related to fundamental conflicts with the 2010 Bay Area Clean Air Plan. However, per City guidelines, a project-level significant impact is also considered to be cumulatively significant. Therefore, because impacts related to siting new sensitive receptors near sources of gaseous TACs are significant and unavoidable at the project-level, it is determined that impacts related to gaseous TACs and odors are significant and unavoidable cumulative

impacts. Furthermore, although project-level impacts related to siting new sources of TACs in the Planning Area are considered less-than-significant due to compliance with BAAQMD's New Source Review regulations as explained above, the potential exists for multiple new sources to result in significant and unavoidable cumulative impacts.

IMPACTS

Impact AQ-1

Implementation of the proposed Plan would not fundamentally conflict with the Bay Area Clean Air Plan (CAP) because the proposed Plan demonstrates reasonable efforts to implement control measures contained in the CAP. ***(Less than Significant)***

The CAP lays the groundwork for future $PM_{2.5}$ attainment planning and is a roadmap showing how the San Francisco Bay Area will achieve compliance with ozone standards as expeditiously as practicable, and how the region will reduce the transport of ozone and ozone precursors to neighboring air basins. The CAP includes stationary source and mobile source air pollution control measures that would be implemented by the BAAQMD, for example to provide more stringent risk reduction requirements for stationary sources and to expand emissions control efforts for vehicles. The CAP also identifies TCMs and LUMs to guide local agency land use policies. Please see the Regulatory Setting above for a listing of TCMs and LUMs in the CAP relevant to the proposed Plan.

Proposed Station Area Plan strategies and policies do not fundamentally conflict with relevant control strategies included in the CAP. For instance, the land use strategy seeks to establish a mixed-use, high density, transit-oriented, walkable community; the circulation improvement strategy seeks to improve pedestrian, bicycle, and transit access; and the Design Guidelines seek to further ensure the quality of the pedestrian realm and complement land use and circulation strategies. The Planning Area is well served with both bus and rail transit, and proposed Plan policies promote location of more housing and employment near these assets, as well as improvements to enhance access within the Planning Area and from surrounding areas by identifying key pedestrian and bicycle access routes. The proposed Plan also recommends consideration of parking pricing strategies.

The City's existing SCAs for exposure to air pollution (including SCA A: Construction-Related Air Pollution Controls (Dust and Equipment Emissions) and SCA B: Exposure to Air Pollution (Toxic Air Contaminants)) implement the CAP recommendations for land use compatibility.

Promoting rideshares and implementing parking management strategies would occur through TDM requirements applicable to future development. SCA 25 (Parking and Transportation Demand Management) would apply for any project with 50 or new residential units or 50,000 square feet or more of new nonresidential space, and this would ensure implementation of parking and transportation demand management strategies consistent with regional air quality management goals.

With these existing SCAs and the proposed Plan strategies and a range of supportive policies within the proposed Plan, the proposed Plan would not fundamentally conflict with the CAP, and this impact would be less than significant.

Mitigation Measures

None required.

Impact AQ-2

Implementation of the proposed Plan would not fundamentally conflict with the primary goals of the 2010 CAP because the projected rate of increase in vehicle trips would be less than the projected rate of increase in population. ***(Less than Significant)***

To assess whether the proposed Plan would fundamentally conflict with the primary goals of the CAP due to the projected rate of increase in vehicle trips, increases in vehicle trips and population envisioned under the proposed Plan were calculated and compared. Vehicle trips are based on ITE Trip Generation Factors and mode split reductions, as outlined in the Transportation methodology in Section 3.2a. Projections of PM peak hour vehicle trips generated in the future condition with the proposed Plan (7,518) indicate that implementation of the proposed Plan would result in an approximately 49 percent increase in vehicle trips from the baseline total of 5,054 (see **Table 3.3-4**). Comparatively, the proposed Plan anticipates a net new population of 9,900 residents in addition to the existing 6,100 residents, resulting in a total population of 16,000. This represents a growth of 162 percent (see **Table 3.3-4**). Because the rate of increase in vehicle trips would be less than the rate of increase in population, the proposed Station Area Plan would not fundamentally conflict with the CAP and the impact would be less than significant.

Table 3.3-4: Change in PM Peak Hour Trips Compared to Population, 2012-2035

	2012 Existing Condition	*Proposed Plan Net New (2012-2035)*	*2035 Total PM Peak Trips*	*Percent Change (2012-2035)*
Vehicle Trips	5,054	2,464	7,518	49%
Population	6,100	9,900	16,000	162%

Source: Dyett & Bhatia, 2012; Kimley Horn, 2012.

Mitigation Measures

None required.

Impact AQ-3

Development facilitated by the proposed Plan would potentially expose sensitive receptors to substantial health risks from toxic air contaminants (TACs) from sources including both diesel particulate matter (DPM) and gaseous emissions. While compliance with the City's Standard Conditions of Approval would entail the preparation of site-specific health risk assessments which would reduce DPM exposure to a less-than-significant level, SCA adherence would not with certainty reduce risk from gaseous TACs to a less-than-significant level. ***(Significant and Unavoidable)***

The following analysis considers both plan-level and project-level impacts of exposure to TACs. Health risks from mobile sources, on I-880, and stationary sources in the Planning Area have been previously analyzed by the BAAQMD, the CARB, and by the City of Oakland, as summarized in the Housing

Element EIR. BAAQMD provides information on mobile and stationary TAC emissions sources.[16] **Figure 3.3-1** shows the I-880 freeway buffer (which varies in width from 400 feet to the south and 750 feet to the north), $PM_{2.5}$ buffers, and stationary source sites as identified by BAAQMD. Currently there are existing sensitive uses, primarily residential uses, located within the highway buffer, as well as in close proximity to identified stationary sources.

[16] Bay Area Air Quality Management District (BAAQMD). Oakland-Lake Merritt Toxic Air Contaminant Detailed Spreadsheet. Provided to the City of Oakland February 16, 2012.

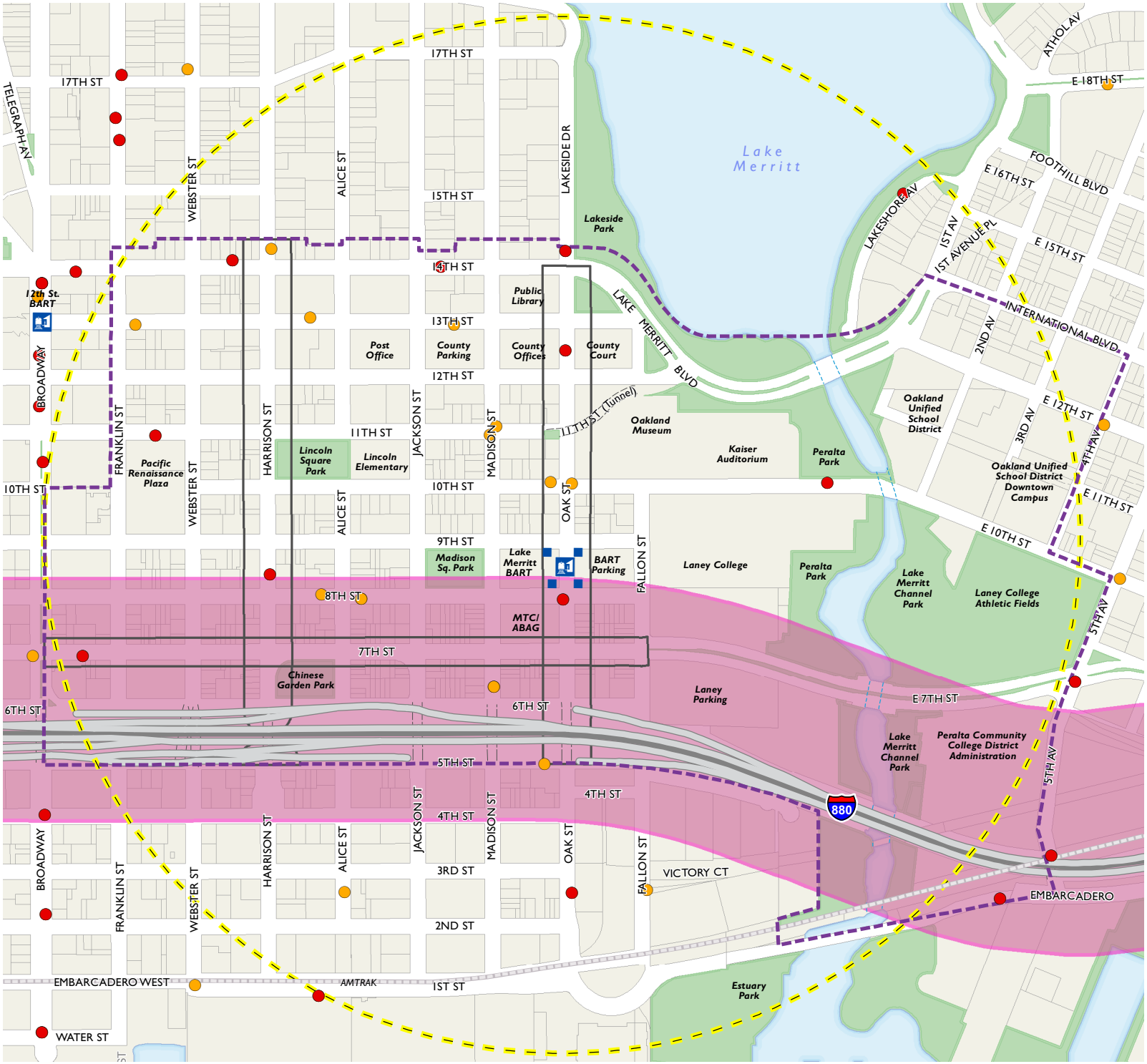

Fig 3.3-1
Toxic Air Contaminants

- BART Station Entrance
- BART Station
- Toxic Air Contaminant Stationary Source that exceeds Risk Threshold*
- Toxic Air Contaminant Stationary Source
- TAC Roadway Overlay Zone
- PM 2.5 Risk (within Planning Area)
- Water
- Existing and Planned City Parks
- Planning Area
- 1/2 Mile Radius

* Exceeds increased cancer risk of 10 in a million OR - exceeds ambient PM 2.5 increase of 0.3 ug/m annual average.

Note: TAC Locations are approximate.

0 100 300 500 750 1,000
FEET

Source: City of Oakland, 2009; BAAQMD, 2010; Dyett and Bhatia, 2012.

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Mobile Sources

Table 3.3-5 lists roadway and surface streets with greater than 10,000 average annual daily trips (AADT). As the Table shows, Interstate 880 is the major mobile source in the Planning Area. Roadway buffers are shown in **Figure 3.3-1.**

Table 3.3-5: Mobile Sources of TACs and PM2.5 in the Planning Area

Roadway/Surface Street (>10,000 ADT)	*Average Annual Daily Trips (AADT)*	*Cancer Risk (in a million) at Identified Distance (in feet)*[1]	*PM at Identified Distance (in feet)*
Interstate 880	259,000	S Link 916: >400 ft 8.906; N Link >750 ft 9.641	S Link 916: >75 ft 3.49; N Link 916 >200 ft .334
7th Street	35,800	8.10 at 10 feet	0.318 at >50 feet
Lakeshore Drive	26,500	6.56 at 10 feet	0.278 at 10 feet
14th/South 12th Street	14,300	5.47 at 10 feet	0.223 at 10 feet
East 12th Street	12,900-22,100	6.17 at 10 feet	0.254 at 10 feet
1st Avenue	13,000	5.01 at 10 feet	0.199 at 10 feet
International Boulevard	23,000	6.17 at 10 feet	0.254 at 10 feet
Embarcadero	14,300	5.47 at 10 feet	0.223 at 10 feet
11th Street	11,000	5.47 at 10 feet	0.223 at 10 feet
12st Street	12,000	5.47 at 10 feet	0.223 at 10 feet
13th Street	10,800	5.47 at 10 feet	0.223 at 10 feet
Oak Street	39,500	8.11 at 10 feet	0.302 at 100 feet
Madison Street	17,600	5.01 at 10 feet	0.199 at 10 feet
Harrison Street	32,400	8.11 at 10 feet	0.302 at 100 feet
Webster Street	19,800	5.01 at 10 feet	0.215 at 10 feet
Franklin Street	15,500	5.01 at 10 feet	0.215 at 10 feet
Broadway	14,400	5.01 at 10 feet	0.215 at 10 feet
8th Street	13,300	5.47 at 10 feet	0.223 at 10 feet

Source: BAAQMD, Oakland-Lake Merritt Toxic Air Contaminant Detailed Spreadsheet, 2012; BAAQMD County Surface Street Screening Tables, 2011.

Stationary Sources

There are 24 stationary sources identified by BAAQMD within the Planning Area with screening-level risks identified. These sources are predominantly associated with commercial and office uses in the area, such as emergency diesel generators, gasoline dispensing facilities, boilers and dry cleaning operations. The excess cancer risk values for these sources can vary from none up to 296 in one million, depending on the source. This screening-level risk does not represent actual impacts. The values are based on worst case assumption scenarios to determine whether or not a refined modeling analysis may be needed. The calculations used in the screening analysis do not include source specific exhaust information such as stack height, exhaust gas exit velocity, exhaust gas temperature, nor do they account for actual distances from receptors. A more refined analysis using source specific exhaust parameters, site specific meteorological data, site specific building dimensions and locations, and actual location of source and receptors is expected to result in lower and more accurate values than those found in the BAAQMD screening tool.[17]

Stationary sources located in the Planning Area and within 1,000 feet of the Planning Area, and their associated risks, are identified in **Table 3.3-6** and shown on **Figure 3.3-1.** Where the BAAQMD has a record of a health risk assessment (HRA) for a specific site, the HRA cancer risk values are also provided in **Table 3.3-6**. The HRA data represent the most site specific data available.

[17] BAAQMD, California Environmental Quality Act Air Quality Guidelines, Updated May 2011.

Table 3.3-6: Stationary Sources of TACs in the Planning Area and 1,000 Foot Radius

Plant #	*Facility Name*	*Source Type*	*Street*	*Excess Cancer Risk Level (per million)[1]*	*HRA Excess Cancer Risk Level (per million)[2]*	*Increase of PM2.5 annual average ($\mu g/m^3$)*
Stationary Sources in the Planning Area						
17927	8 Orchids	Standby Emergency Generator, Hydronic Coiler, Domestic Water Boiler, Boiler, Domestic Water Heater	423 7th Street	29.1	3.53	0.462
13728	East Bay Municipal Utility Dist	3 Diesel Engines, emergency, 10 Microturbine with Heat Recovery	375 11th Street	21.68	0.2	1.51
13071	Mark Borsuk Esq	1 Soil Vapor Extraction System	1432 Harrison Street	0	8.4	0
8511	Madison Street Press	3 Printing Presses, 2 press dryers	614 Madison Street	0.0626		0
18628	Alameda County Public Works Agency	4 Emergency Diesel Engine Pump Drivers	7th Street Lake Merritt	296.21		0.525
14299	City of Oakland Envr Scvs Division	1 Diesel Engine, DELCOAC, emerge	10 10th Street	64.16		0.015
14068	S F Bay Area Rapid Transit District	1 Diesel Engine, Cummins model K	101 8th Street	21.54		0.005
3737	George V Arth & Son	1 paint spray booth	110 10th Street	0		0
7002	City of Oakland, Envr Scvs Division	1 Diesel Engine, emergency stand; 1 spray paint booth	1000 Oak Street	6.01	6.8	0.0014
19039	Hotel Oakland	1 Stationary Standby Emergency Generator	270 13th Street	7.53		0.002

Table 3.3-6: Stationary Sources of TACs in the Planning Area and 1,000 Foot Radius

Plant #	*Facility Name*	*Source Type*	*Street*	*Excess Cancer Risk Level (per million)[1]*	*HRA Excess Cancer Risk Level (per million)[2]*	*Increase of PM2.5 annual average ($\mu g/m^3$)*
378	Ideal Cleaners	Bowe Permac 55lb Petroleum Closed Loop Machine	322 14th Street	7.55		0
18100	Aqua Science Engineers, Inc. (ASE)	1 Portable Soil Vapor Extraction	250 8th Street	0		0
17789	AEI Consultants (AEI)	1 Soil Vapor Extraction System, 1 Groundwater treatment system	245 8th Street	no data	9.9	no data
G584	Rhino Gas	Gas dispensing facility	245 8th Street	1.151		na
6154	Oakland Auto Body & Frame	1 Spray Area; 1 spray booth/coating oven	149 11th Street	0.00076		0.007
13908	County of Alameda - GSA	1 Diesel Engine, emergency stand; 1 diesel engine	1401 Lakeside Drive	72.26		0.017
3069	B & T One Hour Cleaners	1 Union 40 lb. Petroleum Closed Loop Machine	190 14th Street	71.9		0
17190	County of Alameda	1 Emergency Standby Generator Set	1221 Oak Street	51.66	10.96	0.012
13929	County of Alameda - GSA	1 Diesel Engine, Cummins, emergency standby	1106 Madison Street	0		0
G6837	Shell Service Station #135700	Gas dispensing facility	105 5th Street	9.678		na
14685	Qwest Communications Corporation	1 Emergency Backup Power Generator; 1 Emergency Generator: Propane Engine	260 5th Avenue	54.7		0.013
G11947	China Town 76 Unocal #0752	Gas dispensing facility	800 Harrison Street	10.202		na

Table 3.3-6: Stationary Sources of TACs in the Planning Area and 1,000 Foot Radius

Plant #	*Facility Name*	*Source Type*	*Street*	*Excess Cancer Risk Level (per million)*[1]	*HRA Excess Cancer Risk Level (per million)*[2]	*Increase of PM2.5 annual average ($\mu g/m^3$)*
G7875	Alameda County-General Services Agency	Gas dispensing facility	165 13th Street	na		na
14742	County of Alameda - GSA	1 150 kW Emergency Generator	393 13th Street	5.88	13.4	0.001
Sources in the Vicinity of the Planning Area (not shown on map)						
3791	Prime Smoked Meats Inc	1 smoke house, 1 smoke generator	220 Alice Street	0.00		0
18912	Paetec	1 Emergency Standby Diesel Generator	427 14th Street	11.01	0.9	0.003
12318	Peerless Coffee Co	2 Coffee Roasters	260 Oak Street	0.0048		33.9
18947	County of Alameda - Public Works Agency	1 Emergency Standby Diesel Generator	8th Ave & Between Fallon St	3.85	2.3	0.001
G7940	City of Oakland-Fire Dept Drill Tower	Gas dispensing facility	250 Fallon Street	na		na
10397	Le Magic Cleaners	1 Union 40lb D5 Siloxane Closed Loop Machine	1706 Franklin Street	10.1		**0**
14706	Verizon Business	1 Diesel Engine, Generac model 9	7th St & NE Corner of I 880	26.37		0.00607
18179	Douglas Parking Company	1 Soil Vapor Extraction System	1721 Webster Street	No data		No data
14532	AC Transit General Office	3 Diesel Engines: Emergency standby	1600 Franklin Street	41.12		0.073
13494	Pacific Bell	4 standby generators	1587 Franklin Street	513.44		0.913

Table 3.3-6: Stationary Sources of TACs in the Planning Area and 1,000 Foot Radius

Plant #	*Facility Name*	*Source Type*	*Street*	*Excess Cancer Risk Level (per million)[1]*	*HRA Excess Cancer Risk Level (per million)[2]*	*Increase of PM2.5 annual average ($\mu g/m^3$)*
14607	Rotunda Partners II	1 Standby Generator; Diesel Engine	300 Frank Ogawa Plaza	33.43	4.6	0.008
14423	Oakland 14th Office	2 diesel engines; 1 emergency generator	475 14th Street	69.9		0.016
16713	Alameda County Employees Retirement Assoc	1 Emergency Generator	475 14th Street	0		0
20617	Shorenstein Realty Services L P	1 Emergency Generator; 1 fire pump	505 14th Street	9.25		0.002
13308	The Clorox Company	1 emergency generator	1221 Broadway	57.74	0.4	0.013
18110	Level 3 Communications	1 Generac Diesel Engine Generator	1330 Broadway	13.24		0.003
12765	MCI dba Verizon Business	1 emergency generator	1330 Broadway	28.7		0.051
17607	Washington Mutual	1 Standby emergency Generator	1333 Broadway	No data		No data
10345	Best Instrument Repair Company	1 paint spray booth	564 14th Street	0		0
16836	FEMA	1 Emergency Generator; 1 fire pump; 1 Emergency Standby Diesel Generator Set	1111 Broadway	23.7		0.042
17739	Cushman & Wakefield	1 diesel engine, emergency stand by	Jack London SQ	30.12		0.007

Table 3.3-6: Stationary Sources of TACs in the Planning Area and 1,000 Foot Radius

Plant #	*Facility Name*	*Source Type*	*Street*	*Excess Cancer Risk Level (per million)[1]*	*HRA Excess Cancer Risk Level (per million)[2]*	*Increase of PM2.5 annual average ($\mu g/m^3$)*
14837	Trans pacific Centre	3 Diesel Engines: Emergency standby	1000 Broadway	55.04		0.013
14291	City of Oakland, Environmental Services Division	2 diesel engines	455 7th Street	3.01		0.001
G6473	City of Oakland, Police Administration Bldg	gas dispensing facility	495 6th Street	na		na
10997	County of Alameda - GSA	3 water boilers; 2 diesel engines, emergency stand by	661 Washington Street	147.58		1.17
13912	County of Alameda - GSA	1 diesel engine, emergency stand by	480 4th Street	27.86		0.006
19002	Jemco	1 paint spray booth	475 4th Street	0		0
18788	PPD 222 Broadway I, LLC	1 diesel engine, emergency stand by	222 Broadway	18.26	2.2	0.033
10998	County of Alameda - GSA	1 boiler; 1 diesel engine, emergency stand by	400 Broadway	47.86		0.302
G11332	Oakland Marinas	gas dispensing facility	#2 Webster Street	5.025		na
G9903	OFD Fire Station #2	gas dispensing facility	100 Jack London Sq	na		na
19876	Central Concrete Supply	aggregate conveyors, aggregate hoppers, cement scale, mixing and conveying mixter, cement silos, cement fluidizer	401 Embarcadero	0		31.7

Table 3.3-6: Stationary Sources of TACs in the Planning Area and 1,000 Foot Radius

Plant #	*Facility Name*	*Source Type*	*Street*	*Excess Cancer Risk Level (per million)[1]*	*HRA Excess Cancer Risk Level (per million)[2]*	*Increase of PM2.5 annual average ($\mu g/m^3$)*
8601	East Bay Municipal Utility District	2 diesel emergency generators; 1 wet weather treatment plant pump station; 1 wet weather treatment plant grit and screens basin	225 Embarcadero - West	15.8		0.004
G7951	Bay Area Rapid Transit District	gas dispensing facility	601 E 8th Street	3.438		na
10654	Hi Tech Collision Repair	1 spray booth	504 E 10th Street	0		0
13165	Kong Auto Body	1 paint spray booth	1131 6th Avenue	0		0
G9331	N and P Shell #135695	gas dispensing facility	510 International Blvd	7.976		na
G10894	Shore Acre Gas	gas dispensing facility	403 E 12th Street	8.635		na
18461	Rose of Sharon Rehabilitation	1 emergency standby diesel generator	1600 Lakeshore Ave	40.52	1.3	0.009
19564	Lucky #736	1 Emergency Standby Natural Gas Generator	247 E 18th Street	0		0
20248	CIM Group Properties	1 Emergency Standby Diesel Generator	1901 Harrison Street	No data		No data

Note: Values in Bold exceed increased cancer risk of ten in a million or exceed ambient $PM_{2.5}$ increase of 0.3 $\mu g/m^3$ annual average. Per BAAQMD Screening tool, the maximum acute and chronic hazard index for stationary sources in the Planning area is less than 1.0.

1. Excess Cancer Risk level describes the additional cancer risk above the expected rate of cancer in the population at the fence line of the site.
2. HRA Excess Cancer Risk level is based on Health Risk Screening Assessments conducted by the District for these sources, and represent the most site specific data available.

Source: BAAQMD, Oakland-Lake Merritt Toxic Air Contaminant Detailed Spreadsheet, 2012; BAAQMD County Surface Street Screening Tables, 2011; Dyett & Bhatia, 2012.

Impact Assessment

Plan-Level Analysis

The City of Oakland identifies the threshold of significance for plans with regard to community risk and hazard impacts through the inclusion of a land use diagram that identifies existing and planned sources of TACs and overlay zones of at least 500 feet on each side of freeways and high volume roadways. Additionally, the Plan must identify goals, policies and objectives to minimize potential impacts and create overlay zones for sources of TACs and receptors. City SCA B addresses the need for goals, policies and objectives to minimize potential impacts; these are noted in the proposed Plan and described in greater detail below for the project-level analysis.

Project-Level Analysis

New development projects facilitated by the proposed Plan may generate TACs during construction and may include new stationary sources of TACs, such as emergency diesel generators, gasoline dispensing facilities, or boilers during operation. Furthermore, many of the development projects facilitated by the proposed Plan could locate new residences or other sensitive receptors within the Planning Area and potentially near existing mobile and stationary TAC sources. Each of these topics is discussed below.

Project construction activities would produce DPM and $PM_{2.5}$ emissions due to exhaust emissions from equipment such as loaders, backhoes, and cranes, as well as haul truck trips. These emissions could result in elevated concentrations of DPM and $PM_{2.5}$ at nearby receptors (both new and existing residences). These elevated concentrations could lead to an increase in the risk of cancer or other health impacts. Due to the variable nature of construction activity, the generation of TAC emissions in most cases would be temporary, especially considering the short amount of time such equipment is typically within an influential distance that would result in the exposure of sensitive receptors to substantial concentrations.

Current models and methodologies for conducting health risk assessments are associated with longer-term exposure periods of 9, 40, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities. This results in difficulties with producing accurate estimates of increased health risk. The specificity of detail necessary to conduct a health risk assessment is not available at the Plan stage. Notwithstanding this lack of detail, SCA A would implement construction-related Best Management Practices to substantially reduce construction-related impacts to a less-than-significant level.

While there are no specific stationary sources of air pollution proposed as part of the Plan, new development projects in the Planning Area may include new stationary sources of TACs, such as emergency diesel generators, gasoline dispensing facilities, or boilers. For example, the California building code requires back-up diesel generators for all buildings in excess of 70 feet in height for elevator safety. Operators of back-up diesel generators, or other stationary sources of TACs, would be required to obtain a permit and an Authority to Construct from the BAAQMD who would evaluate emissions based on size and require Best Available Control Technology, if warranted, pursuant to BAAQMD's New Source Review regulations. Per its Policy and Procedure Manual, the

BAAQMD would deny an Authority to Construct or a Permit to Operate for any new or modified source of TACs that exceeds a cancer risk of 10 in one million or a chronic or acute hazard index of 1.0. Therefore, potential impacts associated with a new individual stationary source would be less than significant.

Development projects facilitated by the proposed Plan could involve new residences or other sensitive receptors. If future development is located in proximity to mobile and/or stationary sources of pollutants, there is the potential to expose new sensitive receptors to increased health risk. The City's SCA for exposure to air pollution implements the CAP and its recommendations for land use compatibility by requiring identification of circumstances when a residential project or other sensitive receptor would be exposed to a TAC source. New development projects within 1,000 feet of mobile or stationary sources would be required by Oakland SCA B to prepare a health risk assessment (HRA) and/or implement a range of features found to reduce risks. This 1,000-foot buffer exceeds the buffers identified in **Figure 3.3-1**. SCA B addresseses both particulate matter and gaseous emissions. Projects that complete an HRA would be required to implement any project-specific recommendations to reduce the potential health risk. As an initial screening criterion, proposed new uses containing sensitive receptors within 1,000 feet of a known source of DPM or gaseous TAC would be subject to the requirements of SCA B, as detailed below.

SCA B: Exposure to Air Pollution (Toxic Air Contaminants) implements recommendations of both the California Air Resources Board (CARB) and the BAAQMD by requiring qualifying projects to prepare an HRA or incorporate project design features that reduce potential health risk due to exposure to TACs. Such design features (ranging from site layout considerations, landscaping, and interior air filtration systems) can improve interior air quality for sensitive receptors such that attendant health risks of DPM exposure can be reduced to an acceptable level. Qualifying projects are those that involve sensitive land uses, are located within 1,000 feet of a TAC source, and exceed the health risk screening criteria after a screening analysis is conducted in accordance with the BAAQMD CEQA Guidelines.

Distance is an important but not necessarily conclusive factor examined in the HRA to determine whether building residents would be exposed to excessive levels of TACs (both for DPM-borne and gaseous TACs). Other factors that must be taken into account include building orientation, intervening development, and wind patterns of proposed new development. The potential health risk would be determined by taking all of these factors into account and would quantify the project-specific health risk. The project would be required by SCA B to implement feasible measures that would reduce the potential health risk. These measures may include, but are not limited to site planning considerations, installation and use of air filtration systems, and inoperable windows in certain locations. Air filter devices shall be rated MERV-13 or higher. As part of implementing this measure, an ongoing maintenance plan for the building's HVAC air filtration system shall be required.

Housing Element EIR

The Housing Element EIR analyzed the impacts of both DPM-borne and gaseous TACs at both the plan- and project-level (as embodied in Impacts AQ-2a, AQ-2b, AQ-4a, and AQ-4b of the Housing Element EIR).[18]

With regard to DPM, the Housing Element EIR noted the presence of many sources of DPM throughout the entire city (inclusive of the Planning Area). The Housing Element EIR concluded that implementation of SCA 94: Indoor Air Quality (now replaced by SCA B: Exposure to Air Pollution (Toxic Air Contaminants: Particulate Matter)) would reduce both plan- and project-level impacts of DPM sourced TAC exposure to an acceptable, less than significant level. With regard to gaseous TACs, the Housing Element EIR noted that a variety of common commercial, industrial and public uses have the potential to be sources of gaseous-borne TACs. Many of these identified uses are within and in close proximity to the Planning Area. The Housing Element EIR stated that exposure to gaseous TACs cannot be reduced through the use of filters (unlike DPM or particulate TACs) and that no feasible measures or techniques are available to reduce the impact of gaseous TACs on sensitive receptors. Therefore, the Housing Element EIR concluded that despite adherence to SCA 95: Air Pollution Buffering for private Open Space (now replaced by SCA B: Exposure to Air Pollution (Toxic Air Contaminants)), plan- and project-level impacts of gaseous TACs would remain significant and unavoidable. This EIR comes to similar conclusions.

DPM-Borne TACs

Figure 3.3-1 shows the zones of elevated TAC concentrations along I-880 and other Planning Area streets, as well as the numerous stationary sources of TACs, including DPM. Many of the opportunity sites identified in the EIR are within areas of concern for their elevated DPM levels. However, the City's SCA B, as revised to incorporate BAAQMD mitigations from the Plan Bay Area EIR, will apply to housing development located within 1,000 feet of freeways, high-volume roadways, and stationary sources of DPM. For DPM-borne TACs, implementation of SCA B can reduce risk of exposure to an acceptable level through the combination of HRA followed by implementation of appropriate design measures to improve interior air quality. Such design measures may include but are not limited to:

- Installation of air filtration devices rated MERV-13 or higher. As part of implementing this measure, an ongoing maintenance plan for the building's HVAC air filtration system shall be required.
- Phasing of residential developments within 500 feet of freeways such that homes nearest the freeway are built last;
- Design projects to locate sensitive receptors as far as feasible from air pollution sources, including sources within the site such as loading docks and delivery areas;
- Locating sensitive receptors above the ground floor;
- Planting trees and/or vegetation between sensitive receptors and pollution source.

[18] The Housing Element EIR was published prior to the city's 2011 revisions of the SCAs, wherein SCAs B and C replaced SCAs 94 and 95, previously published in 2008.

Compliance with the SCA would require reducing each site's exposure to DPM through the installation of air filtration systems (with 85 percent filtration efficiency) or other equivalent measures to reduce indoor DPM to acceptable levels. At both the plan- and project-levels of evaluation, impacts related to DPM-borne TACs would be less than significant, since SCA policies are sufficient to reduce the risk to acceptable levels, as concluded in the Housing Element EIR.

Gaseous TACs

New development projects within 1,000 feet of mobile or stationary sources would be required by Oakland SCA B to prepare a health risk assessment (HRA) and/or implement a range of features found to reduce risks. These measures may include site planning considerations, installation and use of air filtration systems, and inoperable windows in certain locations. However, for TACs originating from gaseous sources, implementation of SCA B cannot with certainty reduce risks to an acceptable level. While the site planning and filtration methods can capture/screen out airborne particulate matter, these methods do not reduce risks from gaseous TACs. There are no known feasible technologies or site planning considerations that have been shown to reduce risks of gaseous TACs. Therefore, impacts related to gaseous TACs would be significant and unavoidable at both the plan- and project-levels of evaluation, since SCA policies are not sufficient to reduce the risk to acceptable levels.

Conclusion

While the plan-level threshold requiring freeway and high-volume roadways buffers and related policies is addressed in the proposed Plan, project specific impacts related to gaseous TACs cannot reliably be reduced to less than significant through application of City of Oakland SCAs or other feasible mitigation. This finding is reinforced by the recent Plan Bay Area EIR, which concluded that even with mitigation as has now been incorporated in SCA B, future development with sensitive land uses within BAAQMD-recommended distances from potential sources of gaseous TACs may not be sufficient to reduce the impact in all cases. Because of the variety of exposure conditions local to each source and because exposure to gaseous TACs cannot be completely reduced through the use of filters (unlike exposure to particulate TACs), compliance with SCA B would not necessarily ensure that local gaseous TAC exposures could be reduced to acceptable levels. Additional site specific analysis would be needed when a project is proposed in these areas to determine the actual level of impact and if feasible mitigation measures exist for the project to implement to get them below the thresholds. Consequently, individual projects could have significant and unavoidable impacts with respect to exposure to gaseous TACs.

Mitigation Measures

- *Gaseous TACs:* None feasible for gaseous TACs.
- *DPM:* None required.

Significance Conclusion

- *Gaseous TACs:* Significant and Unavoidable at the plan- and project-level.
- *DPM:* Less than Significant at the plan- and project-level.

Impact AQ-4

Implementation of the proposed Plan would not identify existing and planned sources of odors with policies to reduce potential odor impacts and would frequently and for a substantial duration, create or expose sensitive receptors to substantial objectionable odors affecting a substantial number of people. ***(Significant and Unavoidable)***

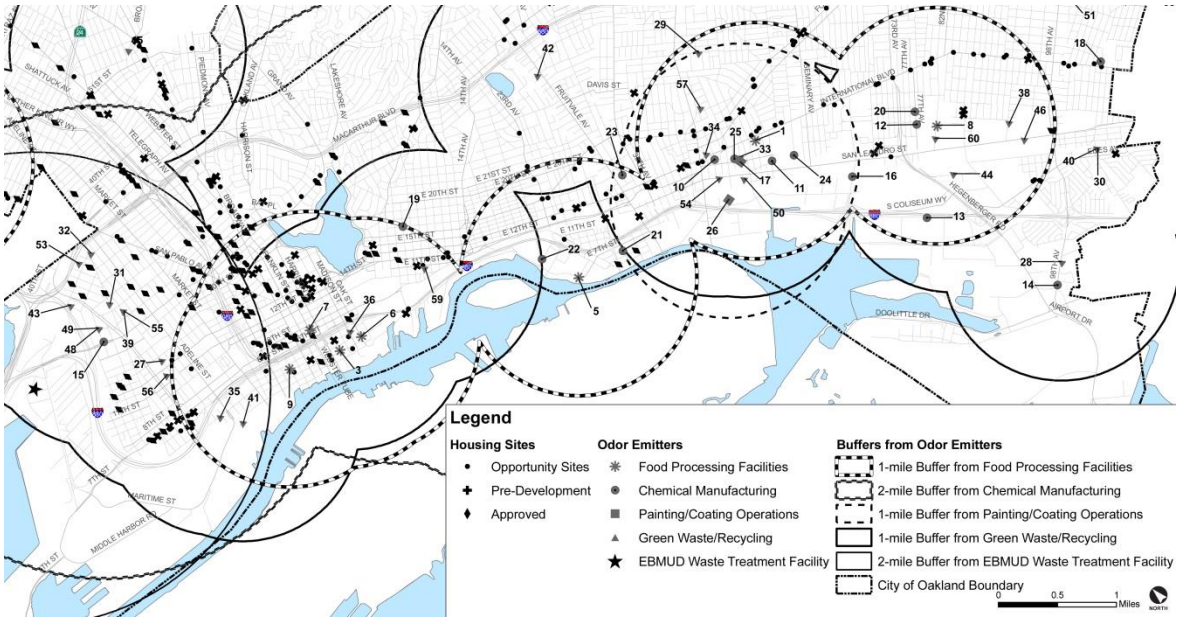
This analysis considers both plan-level and project-level impacts related to exposure to objectionable odors. Though offensive odors from stationary sources rarely cause any physical harm, they still remain unpleasant and can lead to public distress generating citizen complaints to local governments. Odor impacts considered here are related to proposed new odor sources located near existing sensitive 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.

BAAQMD provides examples of the types of land uses that are potential odor sources, which include wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries and chemical plants. Development facilitated by the proposed Station Area Plan would not include these types of land uses. Certain engines, including diesel powered engines used for construction, can also generate objectionable odors; however odors from construction would not be for a substantial duration, indicating that they would not result in a significant impact..

Although the proposed Plan would not include new sources of odors, it would include development of sensitive receptors (residential uses) within buffer zones identified around existing odor sources. Based on mapping completed for the Oakland Housing Element EIR, there is virtually no location within the City of Oakland that is outside of odor buffer areas as defined by the BAAQMD.[19] The entire Planning Area is located within BAAQMD-recommended buffer areas, including one-mile buffer zones around food processing sources located in and near the southern portion of the Planning Area, and within the BAAQMD-recommended one-mile buffer zone of greenwaste/recycling facilities located south and east of the Planning Area (see **Figure 3.3-2**). For additional information on these recommendations, see **Table 3.3-4** of the Housing Element EIR. The westernmost portion of the Planning Area is also within the BAAQMD-recommended two-mile buffer zone of the EBMUD Waste Treatment Facility located in West Oakland.

[19] City of Oakland. Housing Element January 1, 2007 – June 20 2014 Draft Environmental Impact Report. August 2010.

Figure 3.3-2: Odor Emitters and Buffer Zones



Source: City of Oakland General Plan – Housing Element Update 2007-2014 Draft Environmental Impact Report; City of Oakland, 2010; PBS&J, 2010.

The odor buffers are considered a maximum screening distance from a particular source. All odor impacts from the source would be expected to occur within these buffers, but the actual area of impact within the buffer is dependent on certain factors, such as:

- Nature of the odor source (e.g., wastewater treatment plant, food processing plant);
- Frequency of the odor generation (e.g., daily, seasonal, activity-specific);
- Intensity of the odor (e.g., concentration);
- Distance of the odor source to sensitive receptors (e.g., miles);
- Wind direction (e.g., upwind or downwind); and
- Sensitivity of the receptor.[20]

Because there are no feasible plan policies or mitigation measures identified for reducing the impact of siting receptors near odor sources except for increasing the distance between the receptor and the source, and because new residential development proposed under the Station Area Plan is within the recommended odor buffer, the City conservatively assumes that this may result in a significant and unavoidable impact at both the plan- and project-level of analysis.

Mitigation Measures

None Feasible.

[20] Bay Area Air Quality Management District (BAAQMD). California Environmental Quality Act Air Quality Guidelines, Updated May 2012.

Significance Conclusion

Significant and Unavoidable at the plan- and project-level.

Impact AQ-5

Cumulative Air Quality Impacts *(Significant and Unavoidable).*

The cumulative air quality analysis considers cumulative effects related to the significance criteria outlined above, including fundamental conflicts with the 2010 Bay Area Clean Air Plan and impacts related to toxic air contaminants, and odors. The area for cumulative analysis is the San Francisco Bay Area Air Basin, which is considered a nonattainment area for ozone and particulate matter. Cumulative air quality impacts are evaluated based on both project-related air quality impacts and the consistency of the proposed Plan with local and regional air quality plans (i.e., the city's General Plan and the CAP). Per BAAQMD guidelines, a project-level significant impact is also considered to be cumulatively significant. If a project exceeds the identified significance thresholds, the impact would also be cumulatively considerable, resulting in significant adverse air quality impacts on the region's existing air quality conditions. Therefore, additional analysis to assess cumulative impacts is unnecessary in these cases.

As shown in Impacts AQ-1 and AQ-2, development facilitated by the proposed Plan would result in less than significant impacts with regard to whether the proposed Plan would fundamentally conflict with the CAP (in terms vehicle trips and in terms of transportation control measures). Impact AQ-2 considers population growth and vehicle trips associated with all the reasonably foreseeable maximum development within the Planning Area, indicating that the analysis completed was essentially cumulative. Because there is no significant impact for the proposed Plan, there is no significant cumulative impact related to fundamental conflicts with the CAP.

As discussed above, the proposed Plan would result in significant and unavoidable plan- and project-level impacts in terms of exposing new sensitive receptors to gaseous TACs (though less than significant in terms of DPM) and exposure to objectionable odors. Under BAAQMD's recommended methodological approach in determining cumulative impacts, this EIR concludes that the proposed Plan's contribution is cumulatively considerable.

Although the proposed Plan promotes and supports transportation control measures consistent with the CAP and is fundamentally intended to encourage mixed use developments with pedestrian, bicycle, and transit access, the proposed Plan could increase people's exposure to gaseous TACs and exposure to objectionable odors. The proposed Plan therefore is deemed to have a considerable contribution to the overall significant cumulative impact. There are no feasible mitigation measures that would reduce this impact. The cumulative impact would thus remain significant and unavoidable.

Regarding new development projects in the Planning Area that may include new stationary sources of TACs, Impact AQ-3 concludes that project impacts would be less than significant due to compliance with BAAQMD's New Source Review regulations. Notwithstanding the permit restrictions of the BAAQMD, the potential exists for multiple new stationary sources to be developed within the Planning Area. Multiple new sources, each with a health risk under the significance threshold for individual sources, could cumulatively increase the health risk in excess

of the threshold of significance for cumulative impacts. While SCA B would be implemented for new residential development within the Plan Area that could be exposed to locally generated risks, this SCA does not apply to projects with new sources that could impact existing sensitive receptors. Therefore, new project sources could result in a significant cumulative impact.

Mitigation Measures

None Feasible for exposing new sensitive receptors to gaseous TACs or odors.

For new stationary sources of TACs associated with development in the Planning Area, the following mitigation measure would be implemented:

Mitigation AIR-1: Risk Reduction Plan

Applicants for projects that would include backup generators, or other stationary sources of TACs, shall prepare and submit to the City, a Risk Reduction Plan for City review and approval. The applicant shall implement the approved plan. This Plan shall reduce cumulative localized cancer risks to the maximum feasible extent. The Risk Reduction Plan may contain, but is not limited to the following strategies:

- Demonstration using screening analysis or a health risk assessment that project sources, when combined with local cancer risks from cumulative sources with 1,000 feet would be less than 100 in one million.
- Installation of non-diesel fueled generators.
- Installation of diesel generators with an EPA-certified Tier 4 engine or Engines that are retrofitted with an ARB Level 3 Verified Diesel Emissions Control Strategy.

Significance after Mitigation: Conservatively Significant and Unavoidable

Clean diesel generators and other strategies of the Risk Reduction Plan would substantially reduce potential cancer risks associated with DPM. While the residual risk for a given generator would be less than 10 in one million, the degree to which multiple sources, if concentrated on one area would maintain cumulative risks below the significance threshold cannot be assured. While SCA B would apply to new residential development, the impacts to existing receptors could potentially remain and with no options other than controlling the source or mitigating the receptor, this impact is conservatively identified as significant and unavoidable.

3.4 Climate Change and Greenhouse Gases

This section provides an overview of climate change and greenhouse gases, a summary of existing greenhouse gas emissions in Oakland and the region, the regulatory framework, and an analysis of impacts related to climate change and greenhouse gases that would result from implementation of the proposed Plan.

Environmental Setting

PHYSICAL SETTING

Global Climate Change

There is a general scientific consensus that global climate change is occurring, caused in whole or in part by increased emissions of greenhouse gases (GHGs) that keep the Earth's surface warm. Greenhouse gases trap heat in the Earth's atmosphere in much the same way as glass traps heat in a greenhouse.[1] Over the last 10,000 years, the rate of temperature change has typically been incremental, with warming and cooling occurring over the course of thousands of years. During this period, the earth has experienced incremental warming as glaciers retreated across the globe. However, scientists have observed an unprecedented increase in the rate of warming over the past 150 years, roughly coinciding with the global industrial revolution. While many studies show evidence of warming over the last century and predict future global warming, the precise causes of such warming and its potential effects are far less certain.[2] In its "natural" condition, the greenhouse effect is responsible for maintaining a habitable climate on Earth, but human activity has caused increased concentrations of these gases in the atmosphere, thereby contributing to an increase in global temperatures.

Global Climate Change (GCC) is now a widely accepted phenomenon. While scientists are certain that human activities are changing the composition of the atmosphere and that increasing concentrations of GHGs (defined below) will change the planet's climate, they are less certain about how much the climate will change, the rate at which it will change, or what the exact global—or even regional—effects will be. Nonetheless, the world's leading climate scientists—the Intergovernmental Panel on Climate Change

[1] U.S. Environmental Protection Agency (US EPA). Climate Change Facts: Answers to Common Questions (webpage). http://www.epa.gov/climatechange/facts.html, accessed July 9, 2012.

[2] "Global climate change" is a broad term used to describe any worldwide, long-term change in the earth's climate. "Global warming" is more specific and refers to a general increase in temperatures across the earth, although it can cause other climatic changes, such as a shift in the frequency and intensity of weather events and even cooler temperatures in certain areas, even though the world, on average, is warmer.

(IPCC)[3]—have reached consensus that GCC is "very likely" caused by humans, and that hotter temperatures and rising sea levels will continue for centuries no matter how much humans control their future emissions. In particular, human influences have:

- *Very likely* contributed to sea level rise and increased storm surge during the latter half of the 20th century;
- *Likely* contributed to changes in wind patterns, affecting extra-tropical storm tracks and temperature patterns;
- *Likely* increased temperatures of extreme hot nights, cold nights and cold days; and
- *More likely than not* increased risk of heat waves, the area affected by drought, and the frequency of heavy precipitation events.[4]

Acknowledging uncertainties regarding the rate at which anthropogenic greenhouse gas emissions would continue to increase (based upon various factors under human control, such as future population growth and the locations of that growth; the amount, type, and locations of economic development; the amount, type, and locations of technological advancement; adoption of alternative energy sources; legislative and public initiatives to curb emissions; and public awareness and acceptance of methods for reducing emissions), and the impact of such emissions on climate change, the IPCC devised a set of six "emission scenarios" which utilize various assumptions about the rates of economic development, population growth, and technological advancement over the course of the next century.[5] These emission scenarios are paired with various climate sensitivity models to attempt to account for the range of uncertainties that affect climate change projections. The wide range of temperature, precipitation, and similar projections yielded by these scenarios and models reveals the magnitude of uncertainty presently limiting climate scientists' ability to project long-range climate change.

The IPCC predicts that global mean temperature increase from 1990-2100 could range from 2.0 to 11.5 degrees Fahrenheit. They project a sea level rise of seven to 23 inches by the end of the century, with a greater rise possible depending on the rate of polar ice sheet melting. Although uncertainties exist about the extent to which human activity rather than solar or volcanic activity is responsible for increasing warming, there is evidence that some human activity has cooling, rather than warming, effects, as discussed in detail in numerous publications by the IPCC, namely "Climate Change 2007, Working Group I: The Physical Science Basis" (2007).

[3] The Intergovernmental Panel on Climate Change is a scientific intergovernmental body set up by the World Meteorological Organization and by the United Nations Environment Programme. Its role is to assess on a comprehensive, objective, open, and transparent basis the latest scientific, technical, and socio-economic literature produced worldwide relevant to the understanding of the risk of human-induced climate change, its observed and projected impacts, and options for adaptation and mitigation.

[4] Intergovernmental Panel on Climate Change (IPCC). "Summary for Policymakers," *Climate Change 2007: Synthesis Report. Fourth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, November 2007.

[5] Intergovernmental Panel on Climate Change (IPCC). Emissions Scenarios, 2000.

The projected effects of global warming on weather and climate are likely to vary regionally, but are expected to include the following direct effects, according to the IPCC.[6]

- Warming that is greatest over land and at most high northern latitudes and least over Southern Ocean and parts of the North Atlantic Ocean, continuing recent observed trends.
- Contraction of snow cover area, increases in thaw depth over most permafrost regions, and decreases in sea ice extent; in some projections using SRES scenarios, Arctic late-summer sea ice disappears almost entirely by the latter part of the 21st century.
- Very likely increases in the frequency of hot extremes, heat waves and heavy precipitation.
- Likely increases in tropical cyclone intensity; less confidence in global decrease of tropical cyclone numbers.
- Poleward shift of extra-tropical storm tracks with consequent changes in wind, precipitation, and temperature patterns.
- Very likely precipitation increases in high latitudes and likely decreases in most subtropical land regions, continuing observed recent trends.

According to the California Climate Action Team, accelerating GCC has the potential to cause a number of adverse impacts in California, including but not limited to: a shrinking Sierra snowpack that would threaten the state's water supply; public health threats caused by higher temperatures and more smog; damage to agriculture and forests due to reduced water storage capacity, rising temperatures, increasing salt water intrusion, flooding, and pest infestations; critical habitat modification and destruction and an increase in invasive species; eroding coastlines; increased wildfire risk; and increased electricity demand.[7]

While all of these impacts may be felt to some extent in the Bay Area, of particular concern are sea level rise and increased storm surge, with the resulting potential for increased coastal erosion; higher storm-surge flooding; more extensive coastal inundation; changes in surface water quality and groundwater characteristics; loss of property and coastal habitats; increased flood risk and potential loss of life; loss of nonmonetary cultural resources and values; impacts on agriculture and aquaculture through decline in soil and water quality; and loss of tourism, recreation, and transportation functions. Also of concern is the potential for GCC to increase fire threat at the urban-wildland interface, and the potential for an imbalance between electricity supply and demand.

Greenhouse Gases (GHGs)

Carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), ozone (O_3), and water vapor (H_2O) are the principal GHGs, and when concentrations of these gases exceed the natural concentrations in the atmosphere, the greenhouse effect may be enhanced. Without these GHGs, Earth's temperature would be too cold for life to exist. CO_2, CH_4, and N_2O occur naturally as well as through human activity. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely by-products of fossil fuel combustion, while CH_4 results from off-gassing associated with agricultural practices and landfills. In 1994, atmospheric CO_2 concentrations were found to have

[6] Intergovernmental Panel on Climate Change (IPCC). Climate Change 2007: Synthesis Report, 2007.

[7] California Climate Action Team. Report to Governor Schwarzenegger and the California Legislature, December 2010.

increased by nearly 30 percent above pre-industrial (c.1860) concentrations. Man-made GHGs—with much greater heat-absorption potential than CO_2—include fluorinated gases, such as hydrofluorocarbons (HFCs), perfluorocarbons (PFC), and sulfur hexafluoride (SF_6), which are byproducts of certain industrial processes.[8]

Though there are other gases that can contribute to global warming, the six listed above are identified explicitly in California legislation and litigation as being of primary concern. GHGs have varying potentials to trap heat in the atmosphere, known as global warming potential (GWP),[9] and varying atmospheric lifetimes. GWP ranges from one (carbon dioxide) to 23,900 (sulfur hexafluoride). GHG emissions with a higher GWP have a greater global warming effect on a molecule-by-molecule basis. For example, one ton of CH_4 has the same contribution to the greenhouse effect as approximately 21 tons of CO_2.[10] GWP is alternatively described as "carbon dioxide equivalents", or CO_2e. The parameter "atmospheric lifetime" describes how long it takes to restore the system to equilibrium following an increase in the concentration of a GHG in the atmosphere. Atmospheric lifetimes of GHGs range from tens to thousands of years.

State of California Emissions

In 2009 California emitted 457 million tons of CO_2e.[11] As of 2007, California accounted for 6.7 percent of all emissions in the country and ranked as the second highest emitter among the states. This large number is due primarily to the sheer size of California compared to other states. By contrast, California has one of the fourth lowest per capita GHG emission rates in the country, due to the success of its energy-efficiency and renewable energy programs and commitments, which have lowered the state's GHG emissions rate of growth by more than half of what it would have been otherwise.[12] California's fuel use and GHG emissions have also been reduced due to its mild climate compared to that of many other states.

The California Air Resources Board stated in its December 2011 Greenhouse Gas Inventory that the composition of gross climate change pollutant emissions in California in 2009 (expressed in terms of CO_2 equivalence) were as follows:

- Carbon dioxide (CO_2) accounted for 86.1 percent;
- Methane (CH_4) accounted for 7 percent;
- Nitrous oxide (N_2O) accounted for 3.3 percent;
- Sulfur Hexafluoride (SF_6) accounted for 0.2 percent; and

[8] California Environmental Protection Agency. Final 2006 Climate Action Team Report to the Governor and Legislature. Sacramento, CA. April 3, 2006.

[9] The potential of a gas or aerosol to trap heat in the atmosphere.

[10] California Climate Action Registry, *General Reporting Protocol Version 3.1*, 2009.

[11] California Air Resources Board, *California Greenhouse Gas Inventory, 2000-2009*, December 2011, available at http://www.arb.ca.gov/cc/inventory/inventory.htm.

[12] California Energy Commission (CEC), Inventory of California Greenhouse Gas Emissions and Sinks: 2000-2009 - Final Staff Report, publication # CEC-600-2006-013-SF, Sacramento, CA, December 22, 2006; and January 23, 2007 update to that report.

- Other halogenated gases accounted for 3.3 percent.

While total emissions have increased 5.5 percent from 1990 to 2009, emissions decreased by 5.8 percent from 2008 to 2009. In 2009, transportation was the source of 38 percent of the total emissions, while the industrial sector accounted for approximately 20 percent. Electricity generation accounted for approximately 23 percent (with almost equal contributions from in-state and imported electricity).

Bay Area Emissions

In 2010, the Bay Area Air Quality Management District (BAAQMD) completed a baseline inventory of GHG emissions for the year 2007. According to that inventory, 95.8 million metric tons (MMT) of CO_2e were emitted in the Bay Area that year.[13] Given a population of just over 7 million, the resulting per capita emissions were about 13.6 metric tons of CO_2e ($MTCO_2e$). **Table 3.4-1** shows the emissions breakdown by pollutant.

Table 3.4-1: 2007 Bay Area CO_2e Emissions by Pollutant

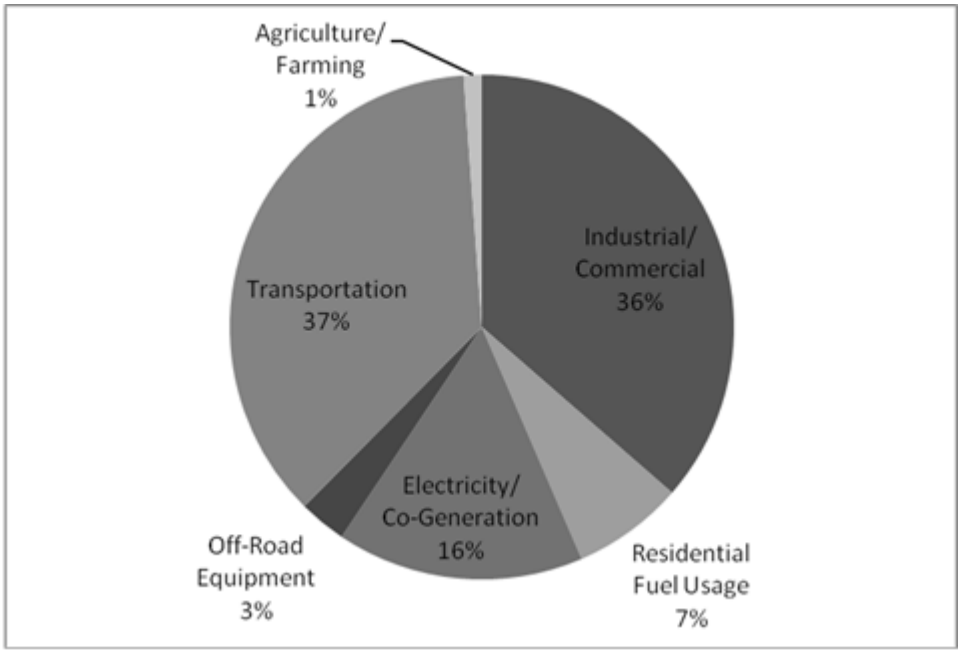
Pollutant	*Percentage*	*CO_2e (Million Metric Tons/Year)*
Carbon Dioxide	91.6	87.8
Methane	2.6	2.5
Nitrous Oxide	1.6	1.5
HFC, PFC, SF6	4.1	4.0
Total	**100**	**95.8**

Source: Bay Area Air Quality Management District, 2010.

The Bay Area's transportation sector contributes 37 percent of the CO_2e GHG emissions, followed by industrial and commercial sources (36 percent), electricity and co-generation (16 percent), residential fuel usage (7 percent), off-road equipment (3 percent), and agriculture and farming (1 percent). Bay Area emissions by sector are illustrated in **Figure 3.4-1**. Of transportation emissions, 76 percent are estimated to be from cars and light duty trucks.

[13] Bay Area Air Quality Management District (BAAQMD). *Source Inventory of Bay Area Greenhouse Gas Emissions*, February 2010.

Figure 3.4-1: Bay Area Greenhouse Gas Emissions by Sector, as a Percent of Total Emissions

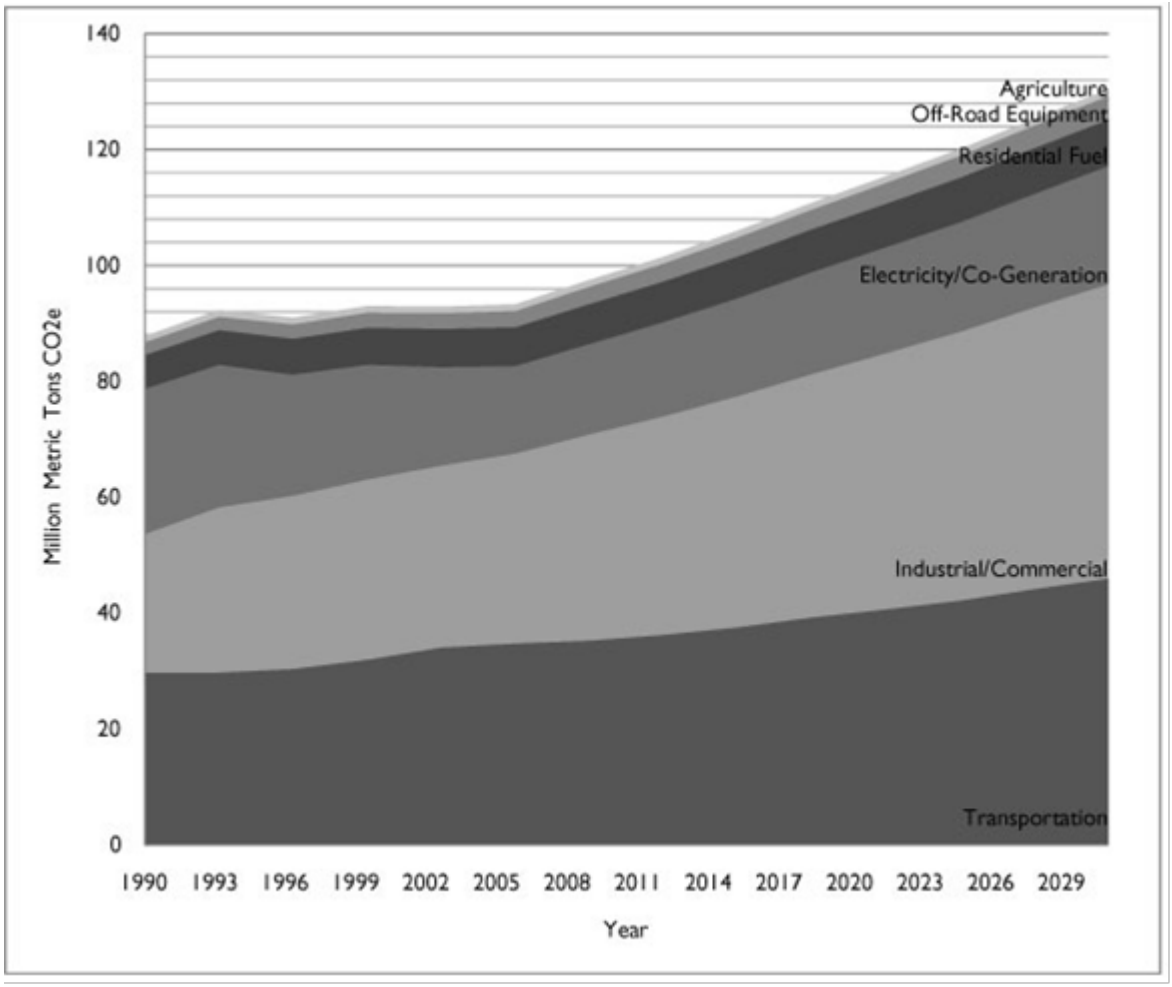


Source: Bay Area Air Quality Management District, 2010.

Absent policy changes, Bay Area GHG emissions are expected to grow at a rate of 1.4 percent a year due to population growth and economic expansion.[14] Economic activity variations and the fraction of electric power generation in the region will cause year-to-year fluctuations in the emissions trends. **Figure 3.4-2** shows the emission trends projected as usual by major sources for the period of 1990 to 2029, absent policy changes.

[14] Ibid.

Figure 3.4-2: Bay Area Greenhouse Gas Emissions Trends by Sector



Source: Bay Area Air Quality Management District, 2010.

REGULATORY SETTING

Federal

U.S. Environmental Protection Agency (US EPA)

On April 2, 2007, in *Massachusetts v. EPA*, 549 U.S. 497 (2007), the Supreme Court found that greenhouse gases are air pollutants covered by the Clean Air Act. The Court held that the Administrator must determine whether or not emissions of greenhouse gases from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision.

On December 7, 2009, Administrator Lisa Jackson signed a final action, under Section 202(a) of the Clean Air Act, finding that six key well-mixed greenhouse gases constitute a threat to public health and welfare, and that the combined emissions from motor vehicles cause and contribute to the climate change problem.

This action was a prerequisite for implementing greenhouse gas emissions standards. Current efforts include issuing greenhouse gas emission standards for new motor vehicles, developing and implementing renewable fuel standard program regulations, proposing carbon pollution standards for new power plants, setting greenhouse gas emissions thresholds to define when permits are required for new and existing industrial facilities under the Clean Air Act, and establishing a greenhouse gas reporting program.

Global Change Research Act (1990)

In 1990, Congress passed and the President signed Public Law 101-606, the Global Change Research Act. The purpose of the legislation was "to require the establishment of a United States Global Change Research Program aimed at understanding and responding to global change, including the cumulative effects of human activities and natural processes on the environment, to promote discussions towards international protocols in global change research, and for other purposes." To that end, the Global Change Research Information Office (GCRIO) was established in 1991 (it began formal operation in 1993) to serve as a clearinghouse of information.

Energy Independence and Security Act (2007)

The Energy Independence and Security Act of 2007 was signed in December 2007 to move the U.S. toward greater energy independence and security. This energy bill increases the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) requiring fuel producers to use at least 36 billion gallons of biofuel in 2022. It also tightens the Corporate Average Fuel Economy (CAFE) standards that regulate the average fuel economy in the vehicles produced by each major automaker.

National Fuel Efficiency Policy (2011-2012)

In 2011, the National Highway Traffic Safety Administration (NHTSA) and EPA jointly issued national fuel efficiency and greenhouse gas emissions standards for model year (MY) 2012-2016 passenger vehicles and light duty trucks. The NHTSA issued CAFE standards for MY 2012-2016 passenger cars and light trucks under the Energy Policy and Conservation Act (EPCA) and Energy Independence and Security Act (EISA), and EPA issued national greenhouse gas emissions standards under the Clean Air Act. Starting with 2012 model year vehicles, the rules require automakers to improve fleet-wide fuel economy and reduce fleet-wide greenhouse gas emissions by approximately 5 percent every year. It is expected that the regulations will result in a 2016 fleet average of 35.5 miles per gallon (mpg). These standards are expected to conserve about 1.8 billion barrels of oil and reduce nearly a billion tons of greenhouse gas emissions over the lives of the vehicles covered.

In 2012, NHTSA and EPA proposed draft language to extend the National Program for MY 2017 through 2025. The proposed CAFE standards are projected to require, on an average industry fleet-wide basis for cars and trucks combined, 40.3-41.0 mpg in MY 2021, and 48.7-49.7 mpg in MY 2025. EPA's proposed GHG standards, which are consistent with NHTSA's CAFE standards, are projected to require 163 grams/mile of carbon dioxide (CO2) in MY 2025. This second phase of the National Program is projected to save approximately 4 billion barrels of oil and 2 billion metric tons of GHG emissions over the lifetimes of those light duty vehicles sold in MY 2017-2025.

State of California

Assembly Bill 1493 (2002)

On July 1, 2002, the California Assembly passed Assembly Bill (AB) 1493 (signed into law on July 22, 2002), requiring the California Air Resources Board (CARB) to "adopt regulations that achieve the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles." The regulations were to be adopted by January 1, 2005, and to apply to 2009 and later model-year vehicles. In September 2004, CARB responded by adopting "CO_2-equivalent fleet-average emission" standards. The standards will be phased in from 2009 to 2016, reducing emissions by 22 percent in the "near term" (2009–2012) and 30 percent in the "mid-term" (2013–2016), as compared to 2002 fleets.

Executive Order S-3-05 (2005)

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order (EO) S-3-05, establishing statewide GHG emissions reduction targets. This EO provides that by 2010, emissions shall be reduced to 2000 levels; by 2020, emissions shall be reduced to 1990 levels; and by 2050, emissions shall be reduced to 80 percent of 1990 levels. The Secretary of the California Environmental Protection Agency (CalEPA) is charged with coordinating oversight of efforts to meet these targets and formed the Climate Action Team (CAT) to carry out the EO. Several of the programs developed by the CAT to meet the emission targets are relevant to residential construction and are outlined in a March 2006 report.[15] These include prohibition of idling of certain classes of construction vehicles; provision of recycling facilities within residential buildings and communities; compliance with the Energy Commission's building and appliance energy efficiency standards; compliance with California's Green Buildings and Solar initiatives; and implementation of water-saving technologies and features.

Senate Bill 1368 (Statutes of 2006)

Senate Bill (SB) 1368, signed in September 2006, required the California Public Utilities Commission (PUC) to establish a GHG emissions performance standard for "baseload" generation from investor-owned utilities by February 1, 2007. The California Energy Commission (CEC) was required to establish a similar standard for local publicly-owned utilities by June 30, 2007. The legislation further required that all electricity provided to California, including imported electricity, must be generated from plants that meet or exceed the standards set by the PUC and the CEC. In January 2007, the PUC adopted an interim performance standard for new long-term commitments (1,100 pounds of CO_2 per megawatt-hour), and in May 2007, the CEC approved regulations that match the PUC standard.

Senate Bill 1 (Chapter 132, Statutes of 2006)

The "Million Solar Roofs" legislation expands the California Solar Initiative and sets the goals of installing 3,000 megawatts of new solar capacity by 2017 in order to move the state toward a cleaner energy future, and helping to lower the cost of solar systems for consumers. The Million Solar Roofs program is a ratepayer-financed incentive program aimed at transforming the market for rooftop solar systems by driving the cost down over time.

[15] California Environmental Protection Agency (CalEPA). Climate Action Team, *Executive Summary. Climate Action Team Report to Governor Schwarzenegger and the California Legislature*. Sacramento, CA, March 2006.

Senate Bill 1368 (Chapter 598, Statutes of 2006)

Under the requirements in SB 1368, the California Energy Commission and the California Public Utilities Commission have established a standard for baseload energy generation greenhouse gas emissions of 1,100 lbs CO_2 per megawatt-hour (MWh). This standard applies to both energy generated in-state as well as that under long term contract in other states.

Assembly Bill 32 (2006)

Assembly Bill (AB) 32, the California Global Warming Solutions Act (Health and Safety Code Section 38500 et. seq.), was signed in September 2006. The Act requires the reduction of statewide GHG emissions to 1990 levels by the year 2020. This change, which is estimated to be a 25- to 35-percent reduction from current emission levels, will be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. The Act also directs the ARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources and address GHG emissions from vehicles. The ARB has stated that the regulatory requirements for stationary sources will be first applied to electricity power generation and utilities, petrochemical refining, cement manufacturing, and industrial/commercial combustion. The second group of target industries will include oil and gas production/distribution, transportation, landfills and other GHG-intensive industrial processes.

On December 11, 2008, CARB adopted its *Climate Change Scoping Plan* (Scoping Plan), which functions as a roadmap of CARB's plans to achieve GHG reductions in California required by AB 32 through subsequently enacted regulations. The Scoping Plan contains the main strategies California will implement to reduce CO_2e emissions by 174 MMT, or approximately 30 percent, from the state's projected 2020 emissions level of 596 MMT CO_2e under a "business-as-usual" scenario. The Scoping Plan also breaks down the amount of GHG emissions reductions CARB recommends for each emissions sector of the state's GHG inventory. While CARB has identified a GHG reduction target of 15 percent for local governments themselves, it has not yet determined what amount of GHG emissions reductions it recommends should come from local government land use decisions. However, the Scoping Plan does state that successful implementation of the plan relies on local governments' land use planning and urban growth decisions, because local governments have primary authority to plan, zone, approve, and permit land development to accommodate population growth and the changing needs of their jurisdictions. CARB further acknowledges that decisions on how land is used will have large effects on the GHG emissions that will result from the transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas emission sectors.

The Scoping Plan also includes recommended measures that were developed to reduce GHG emissions from key sources and activities while improving public health, promoting a cleaner environment, preserving natural resources, and ensuring that the impacts of the reductions are equitable and do not disproportionately impact low-income and minority communities. These measures, shown in **Table 3.4-2** by sector, also put the state on a path to meet the long-term goal of reducing California's GHG emissions by 2050 to 80 percent below 1990 levels.

Table 3.4-2: List of Climate Change Scoping Plan Recommended Actions By Sector

Measure No.	*Measure Description*	*GHG Reductions (Annual MMT CO_2e)*
Transportation		
T-1	Pavley I and II – Light Duty Vehicle Greenhouse Gas Standards	31.7
T-2	Low Carbon Fuel Standard (Discrete Early Action)	15
T-3	Regional Transportation-Related Greenhouse Gas Targets[1]	5
T-4	Vehicle Efficiency Measures	4.5
T-5	Ship Electrification at Ports (Discrete Early Action)	0.2
T-6	Goods Movement Efficiency Measures • Ship Electrification at Ports • System-Wide Efficiency Improvements	3.5
T-7	Heavy-Duty Vehicle Greenhouse Gas Emission Reduction Measure –Aerodynamic Efficiency (Discrete Early Action)	0.93
T-8	Medium- and Heavy-Duty Vehicle Hybridization	0.5
T-9	High Speed Rail	1
Electricity and Natural Gas		
E-1	Energy Efficiency (32,000 GWh of Reduced Demand) • Increased Utility Energy Efficiency Programs • More Stringent Building & Appliance Standards • Additional Efficiency and Conservation Programs	15.2
E-2	Increase Combined Heat and Power Use by 30,000 GWh (Net reductions include avoided transmission line loss)	6.7
E-3	Renewables Portfolio Standard (33% by 2020)	21.3
E-4	Million Solar Roofs (including California Solar Initiative, New Solar Homes Partnership and solar programs of publicly owned utilities) • Target of 3000 MW Total Installation by 2020	2.1
CR-1	Energy Efficiency (800 Million Therms Reduced Consumptions) • Utility Energy Efficiency Programs • Building and Appliance Standards • Additional Efficiency and Conservation Programs	4.3
CR-2	Solar Water Heating (AB 1470 goal)	0.1
Green Buildings		
GB-1	Green Buildings	26
High GWP Gases		
H-1	Motor Vehicle Air Conditioning Systems: Reduction of Refrigerant Emissions from Non-Professional Servicing (Discrete Early Action)	0.26
H-2	SF6 Limits in Non-Utility and Non-Semiconductor Applications (Discrete Early Action)	0.3

Table 3.4-2: List of Climate Change Scoping Plan Recommended Actions By Sector

Measure No.	*Measure Description*	*GHG Reductions (Annual MMT CO_2e)*
H-3	Reduction of Perfluorocarbons in Semiconductor Manufacturing (Discrete Early Action)	0.15
H-4	Limit High GWP Use in Consumer Products (Discrete Early Action) (Adopted June 2008)	0.25
H-5	High GWP Reductions from Mobile Sources • Low GWP Refrigerants for New Motor Vehicle Air • Conditioning Systems • Air Conditioner Refrigerant Leak Test During Vehicle • Smog Check • Refrigerant Recovery from Decommissioned • Refrigerated Shipping Containers • Enforcement of Federal Ban on Refrigerant Release • during Servicing or Dismantling of Motor Vehicle Air • Conditioning Systems	3.3
H-6	High GWP Reductions from Stationary Sources • High GWP Stationary Equipment Refrigerant Management Program: – Refrigerant Tracking/Reporting/Repair Deposit Program – Specifications for Commercial and Industrial Refrigeration Systems • Foam Recovery and Destruction Program • SF Leak Reduction and Recycling in Electrical Applications • Alternative Suppressants in Fire Protection Systems • Residential Refrigeration Early Retirement Program	10.9
H-7	Mitigation Fee on High GWP Gases	5
Water		
W-1	Water Use Efficiency	1.4†
W-2	Water Recycling	0.3†
W-3	Water System Energy Efficiency	2.0†
W-4	Reuse Urban Runoff	0.2†
W-5	Increase Renewable Energy Production	0.9†
W-6	Public Goods Charge (Water)	TBD†
Recycling and Waste		
RW-1	Landfill Methane Control (Discrete Early Action)	1
RW-2	Additional Reductions in Landfill Methane • Increase the Efficiency of Landfill Methane Capture	TBD

Table 3.4-2: List of Climate Change Scoping Plan Recommended Actions By Sector

Measure No.	*Measure Description*	*GHG Reductions (Annual MMT CO_2e)*
RW-3	High Recycling/Zero Waste	
	• Mandatory Commercial Recycling	5
	• Increase Production and Markets for Organics Products	2
	• Anaerobic Digestion	2
	• Extended Producer Responsibility	TBD
	• Environmentally Preferable Purchasing	TBD
Sustainable Forests and Agriculture		
F-1	Sustainable Forest Target	5
A-1	Methane Capture at Large Dairies	1
Industry		
I-1	Energy Efficiency and Co-Benefits Audits for Large Industrial Sources	TBD
I-2	Oil and Gas Extraction GHG Emission Reduction	0.2
I-3	GHG Leak Reduction from Oil and Gas Transmission	0.9
I-4	Refinery Flare Recovery Process Improvements	0.3
I-5	Removal of Methane Exemption from Existing Refinery Regulations	0.01

1. This number represents an estimate of what may be achieved from local land use changes. It is not the SB 375 regional target. See SB 375 description below for the Bay Area regional target.

Source: California Air Resources Board, Climate Change Scoping Plan, a framework for change, December 2008.

Executive Order S-01-07 (2007)

In January 2007, Executive Order S-01-07 established a Low Carbon Fuel Standard (LCFS). The Order calls for a statewide goal to be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020 ("2020 Target"), and that an LCFS for transportation fuels be established for California. Further, it directs the ARB to determine if an LCFS can be adopted as a discrete early action measure pursuant to AB 32, and if so, consider the adoption of an LCFS on the list of early action measures required to be identified by June 30, 2007, pursuant to Health and Safety Code Section 38560.5. The LCFS applies to all refiners, blenders, producers or importers (Providers) of transportation fuels in California, will be measured on a full fuels cycle basis, and may be met through market-based methods by which Providers exceeding the performance required by a LCFS shall receive credits that may be applied to future obligations of traded to Providers not meeting the LCFS.

In June 2007, the ARB approved the LCFS as a Discrete Early Action item under AB 32 and in April 2009 the ARB approved the new rules and carbon intensity reference values with the new regulatory requirements taking effect in January 2011. The standards require providers of transportation fuels to report on the mix of fuels that they provide and demonstrate that they meet the LCFS intensity standards annually. This is accomplished by ensuring that the number of "credits" earned by providing fuels with a

lower carbon intensity than the established baseline (or obtained from another party) is equal to or greater than the "deficits" earned from selling higher intensity fuels.

In December 2011, the U.S. District Court for the Eastern District of California issued three rulings against the LCFS including a requirement for ARB to abstain from enforcing the LCFS. In April 2012, the Ninth Circuit granted ARB's motion for a stay of the injunction while it continues to consider ARB's appeal of the lower court's decision.

Senate Bill 97 (Chapter 185, Statutes of 2007)

Senate Bill (SB) 97, adopted August 2007, directed the Governor's Office of Planning and Research (OPR) to adopt amendments to the California Environmental Quality Act (CEQA) Guidelines to address greenhouse gas emissions. These amendments became effective in March 2010.

California Senate Bill 375 (Statutes of 2008)

On September 30, 2008, Governor Schwarzenegger signed Senate Bill (SB) 375 into law. Sustainable Communities requires the California ARB to develop regional greenhouse gas emission reduction targets for passenger vehicles to help achieve the GHG emission reduction targets set by AB 32. Under SB 375 ARB established targets for 2020 and 2035 for each region covered by one of the state's 18 metropolitan planning organizations (MPOs). Each of California's MPOs must then prepare a "sustainable communities strategy (SCS)" that demonstrates how the region will meet its greenhouse gas reduction target through integrated land use, housing and transportation planning. The target established for the Bay Area is 7 percent by 2020 and 15 percent by 2035, as compared to 2005.

SB 375 also identifies new CEQA exemptions and streamlining for projects that are consistent with the SCS and qualify as Transportation Priority Projects (TPP). TPPs must meet three requirements: (1) contain at least 50 percent residential use; commercial use must have floor area ratio (FAR) of not less than 0.75; (2) have a minimum net density of 20 units per acre; and (3) be located within one half-mile of a major transit stop or high quality transit corridor included in the regional transportation plan.

California's Energy Efficiency Standards for Residential and Nonresidential Buildings

Known by the shorthand name of "Title 24," this policy was established in 1978 in response to a legislative mandate to reduce California's energy consumption. Title 24 is updated periodically to allow for incorporation of new energy efficiency technologies and methods. The most recent update, 2008, incorporated AB 32 mandates and advanced the energy efficiency requirements in order to meet California's energy needs. The 2013 update to the standards will build upon the previous standards and will take effect in 2014. Several State energy policy goals drive the design of the current standards: the "Loading Order," which directs California's growing demand must first be met with cost-effective energy efficiency; "Zero Net Energy" (ZNE) goals for new homes by 2020 and commercial buildings by 2030; Governor Brown's Executive Order on Green Buildings; the Green Building Standards Code; and AB 32. The 2013 Standards will use 25 percent less energy for lighting, heating, cooling, ventilation, and water heating than the 2008 Standards. Additionally, the Standards will prevent 170,500 tons of greenhouse gas emissions per year.

California Green Building Standards Code (CALGreen, 2010)

CALGreen is the green building code specific to the state of California, adopted in January 2010 and effective as of January 2011 for residential and non-residential new construction projects. This code aims to improve the safety, health, and general welfare of the public in California by reducing the negative impacts of construction and buildings on the environment and encouraging sustainable construction practices. Through the promotion of sustainable planning and design, energy efficiency, water efficiency and conversion, materials conversion, resources efficiency, and environmental quality, CALGreen aims to support a high standard for green buildings in California and lower the overall impacts that buildings impose on the environment. The code is composed of mandatory measures that must be implemented by local jurisdictions as well as voluntary measures called Tiers.

City of Oakland Local Plan and Policies Relevant to GHG Emissions and Climate Change

Draft Energy and Climate Action Plan

In July 2009, the Oakland City Council approved a preliminary year 2020 GHG reduction target and directed staff to develop the draft Oakland Energy and Climate Action Plan. Staff used a preliminary planning GHG reduction target equivalent to 36 percent below 2005 GHG emissions by 2020 and 80 percent below 2005 levels by 2050, as well as annual benchmarks for meeting the target.

The City of Oakland Energy and Climate Action Plan (ECAP),[16] adopted December 4, 2012, outlines a ten-year plan including more than 150 actions that will enable Oakland to achieve the desired 36-percent reduction in GHG emissions. This document has not yet been adopted and CEQA review is underway. The ECAP includes a Three Year Priority Implementation Plan, a prioritized subset of actions recommended for immediate implementation. These priority actions will capitalize on near term opportunities and lay the groundwork for long-term progress. Some of the recommended priority actions can be implemented with existing and anticipated resources. Others will require the identification of new, in some cases significant, resources to move forward.

Green Building Ordinance

The Green Building Ordinance was adopted by the City of Oakland in 2005, in conjunction with the Sustainable Communities Initiative of 1998, in order to maintain high standards of green development and new construction throughout the City. This ordinance requires green performance in major civic projects and provides policies to assist private development projects in improving green performance.

In October of 2010, the city adopted the Green Building Ordinance for Private Development Projects. The ordinance affects a wide range of projects from new construction of single- and multi-family residential as well as non-residential projects, additions and alterations, modifications or demolition of historic resources, construction of affordable housing and mixed-use projects, as well as projects requiring a landscape plan. Projects that are affected based on defined thresholds in the ordinance include:

- Residential and non-residential new construction, additions, and alterations;

[16] City of Oakland, *Energy and Climate Action Plan,* December 4, 2012, accessible at http://www2.oaklandnet.com/oakca1/groups/pwa/documents/report/oak039056.pdf.

- Removal of an historic resource and new construction;
- Historic residential and non-residential additions and alterations;
- Mixed use construction; and
- Construction requiring a landscape plan.

Certain types of projects are required to receive certification through a non-governmental green rating agency, including:

- All new residential construction and residential additions or alterations over 1,000 square feet, certified through Build It Green's GreenPoint Rated program; and
- All new non-residential construction and non-residential additions or alterations.

In addition to Oakland's local Green Building Ordinance, the State of California recently adopted the new Green Building Code known as CALGreen (described above). Both the City's local ordinance and CALGreen are now in effect.

City of Oakland Municipal Code

Chapter 15.34 of Oakland's Municipal Code addresses Construction and Demolition Debris Waste Reduction and Recycling Requirements. This Chapter requires projects to submit a Construction and Demolition Waste Reduction Plan for review and approval. As a result, construction-related truck traffic, which primarily employs diesel fueled engines, would be reduced, since demolition debris that would previously have been hauled off-site would instead be reused on-site. In addition, reuse of concrete, asphalt, and other debris would reduce the amount of material introduced to area landfills.

City of Oakland General Plan

Land Use and Transportation Element (LUTE). The LUTE of the Oakland General Plan contains the following policies that address issues related to GHG Emissions and Climate Change:

Policy T.2.1: **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.

Policy T.2.2: **Guiding Transit-Oriented Development.** 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.

Policy T3.5: **Including Bikeways and Pedestrian Walks.** The City should include bikeways and pedestrian ways in the planning of new, reconstructed, or realigned streets, wherever possible.

Policy T3.6: **Encouraging Transit.** 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.

Policy T4.1: **Incorporating Design Features for Alternative Travel.** The City will require new development, rebuilding, or retrofit to incorporate design features in their projects that encourage use of alternative modes of transportation such as transit, bicycling, and walking.

Policy T4.2: **Creating Transportation Incentives.** Through cooperation with other agencies, the City should create incentives to encourage travelers to use alternative transportation options.

Policy T4.5: **Preparing a Bicycle and Pedestrian Master Plan.** The City should prepare, adopt, and implement a Bicycle and Pedestrian Master Plan as a part of the Transportation Element of [the] General Plan.

Policy D10.6: **Creating Infill Housing.** Infill housing that respects surrounding development and the streetscape should be encouraged in the downtown to strengthen or create distinct districts.

Policy D11.1: **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.

Policy N3.2: **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.

Open Space, Conservation and Recreation Element (OSCAR). The OSCAR Element includes policies that address GHG reduction and global climate change. Listed below are OSCAR policies that encourage the provision of open space, which increases vegetation area (trees, grass, landscaping, etc.) to effect cooler climate, reduce excessive solar gain, and absorb CO_2; OSCAR policies that encourage stormwater management, which relates to the maintenance of floodplains and infrastructure to accommodate potential increased storms and flooding; and OSCAR policies that encourage energy efficiency and use of alternative energy sources, which directly address reducing GHG emissions. OSCAR policies include Open Space policies (OS) and Conservation policies (CO).

Policy OS-1.1: Conserve existing City and Regional Parks characterized by steep slopes, large groundwater recharge areas, native plant and animal communities, extreme fire hazards, or similar conditions.

Policy OS-2.1: Manage Oakland's urban parks to protect and enhance their open space character while accommodating a wide range of outdoor recreational activities.

Policy CO-5.3: Control of Urban Runoff. Employ a broad range of strategies, compatible with the Alameda Countywide Clean Water Program, to: (a) reduce water pollution associated with stormwater runoff; (b) reduce water pollution associated with hazardous spills, runoff from hazardous material areas, improper disposal of household hazardous wastes, illicit dumping, and marina live-aboards; and (c) improve water quality in Lake Merritt to enhance the Lake's aesthetic, recreational, and ecological functions.

Policy CO-12.1: Promote land use patterns and densities which help improve regional air quality conditions by: (a) minimizing dependence on single passenger autos; (b) promoting projects which minimize quick auto starts and stops, such as live-work development, mixed-use development, and office development with ground floor retail space; (c) separating land uses which are sensitive to pollution from the sources of air pollution; and (d) supporting telecommuting, flexible work hours, and behavioral changes which reduce the percentage of people in Oakland who must drive to work on a daily basis.

Policy CO-12.3: Expand existing transportation systems management and transportation demand management strategies which reduce congestion, vehicle idling, and travel in single passenger autos.

Policy CO-12.4: Require that development projects be designed in a manner which reduces potential adverse air quality impacts. This may include: (a) the use of vegetation and landscaping to absorb carbon monoxide and to buffer sensitive receptors; (b) the use of low-polluting energy sources and energy conservation measures; and (c) designs which encourage transit use and facilitate bicycle and pedestrian travel.

Policy CO-12.5: Require new industry to use best available control technology to remove pollutants, including filtering, washing, or electrostatic treatment of emissions.

Policy CO-13.2: Support public information campaigns, energy audits, the use of energy-saving appliances and vehicles, and other efforts which help Oakland residents, businesses, and City operations become more energy efficient.

Policy CO-13.3: Encourage the use of energy-efficient construction and building materials. Encourage site plans for new development which maximize energy efficiency.

Policy CO-13.4: Accommodate the development and use of alternative energy resources, including solar energy and technologies which convert waste or industrial byproducts to energy, provided that such activities are compatible with surrounding land uses and regional air and water quality requirements.

Historic Preservation Element (HPE). A key HPE policy relevant to climate change encourages the reuse of existing building (and building materials) resources, which could reduce landfill material (a source of methane), avoid the incineration of materials (which produces CO_2 as a by-product), avoid the need to transport materials to disposal sites (which produces GHG emissions), and eliminate the need for materials to be replaced by new product (which often requires the use of fossil fuels to obtain raw and manufacture new material).

Safety Element. Safety Element policies that address wildfire hazards relate to climate change in that increased temperatures could increase fire risk in areas that become drier due to climate change. Also, wildfire results in the loss of vegetation; carbon is stored in vegetation, and when the vegetation burns, the carbon returns to the atmosphere.[17] The occurrence of wildfire also emits particulate matters into the

[17] National Aeronautics and Space Administration (NASA), *El Nino-Related Fires Increase Greenhouse Gas Emissions, January 5, 2005,* http://www.nasa.gov/centers/goddard/news/ topstory/2004/0102firenino.html, accessed August 10, 2007.

atmosphere. Safety Element policies regarding storm-induced flooding hazards related to the potential to accommodate potential increase in storms and flooding as a result of climate change.

Policy FL-3: Prioritize the reduction of the wildfire hazard, with an emphasis on prevention.

Policy FL-1: Enforce and update local ordinances and comply with regional orders that would reduce the risk of storm-induced flooding.

Policy FL-2: Continue or strengthen city programs that seek to minimize the storm-induced flooding hazard.

Housing Element. The following goals from the 2007-2014 Housing Element (adopted December 21, 2010) help reduce GHG emissions from residential development by fostering density, rehabilitation of existing housing stock, and sustainable building practices:

- Goal 1: Provide Adequate Sites Suitable for Housing for All Income Groups
- Goal 4: Conserve and Improve Older Housing and Neighborhoods
- Goal 7: Promote Sustainable Development and Sustainable Communities

Other City of Oakland Programs and Policies

The City of Oakland has supported and adopted a number of programs and policies designed to reduce GHG emissions and continue Oakland's progress toward becoming a model sustainable city. Other relevant programs and policies include:

- *Sustainable Oakland Program.* Oakland's sustainability efforts are coordinated through the Sustainable Oakland program, a product of the Oakland Sustainability Community Development Initiative (SDI) created in 1998 (Ordinance 74678 C.M.S.).
- *Green Economy, Business and Jobs / Green Business* – The Alameda County Green Business Program offers technical assistance and incentives to businesses and agencies wishing to go beyond basic regulatory requirements. Additionally, the City implemented a Socially Responsible Business Task Force, which created a checklist designed to measure the relative level of social and environmental responsibility of firms nominated to receive major financial assistance from the City.
- *Downtown Housing* – The 10K Downtown Housing Initiative has a goal of attracting 10,000 new residents to downtown Oakland by encouraging the development of 6,000 market-rate housing units. This effort is consistent with Smart Growth principles.
- *Waste Reduction and Recycling* – The City of Oakland has implemented a residential recycling program increasing collection of yard trimmings and food waste. This program has increased total yard trimming collections by 46 percent compared to 2004, and recycling tonnage by 37 percent. The City has also adopted Construction and Demolition Recycling requirements, described above.
- *Polystyrene Foam Ban Ordinance* - In June 2006, the Oakland City Council passed the Green Food Service Ware Ordinance (Ordinance 14727, effective as of January 1, 2007), which prohibits the use of polystyrene foam disposable food service ware and requires, when cost

neutral, the use of biodegradable or compostable disposable food service ware by food vendors and City facilities.

- *Zero Waste Resolution* - In March 2006, the Oakland City Council adopted a Zero Waste Goal by 2020 Resolution (Resolution 79774 C.M.S.), and commissioned the creation of a Zero Waste Strategic Plan to achieve the goal.
- *Stormwater Management* - Provision C.3 of the NPDES permit is the section of the permit containing stormwater pollution management requirements for new development and redevelopment projects. Among other things, Provision C.3 requires that certain new development and redevelopment projects incorporate post-construction stormwater pollution management measures, including stormwater treatment measures, stormwater site design measures, and source control measures, to reduce stormwater pollution after the construction of the project. These requirements are in addition to standard stormwater-related best management practices (BMPs) required during construction.
- *Healthy Food Systems* - The Mayor's office, working with graduate students from the University of California, developed a resolution authorizing an initial food systems assessment study. The study, authorized by the City Council on January 17, 2006 through Resolution No. 79680 C.M.S., examines current trends in Oakland's food system and recommends programs and policies that promote a sustainable food system for Oakland. One of the goals of the Healthy Food Systems program is the utilization and support of local agriculture as a potential means to reduce the truck miles necessary to distribute food locally, thereby reducing their contribution to GHG emissions.
- *Community Gardens and Farmer's Markets* - Community Gardening locations include Arroyo Viejo, Bella Vista, Bushrod, Golden Gate, Lakeside Horticultural Center, Marston Campbell, Temescal, and Verdese Carter. Weekly Farmer's Markets locations include (among others) the Jack London Square, Old Oakland, Grand Lake, Mandela, Montclair, and Temescal districts. Both efforts promote and facilitate the principal of growing and purchasing locally, which effects reductions in truck and vehicle use and GHG emissions.

City of Oakland's Standard and Uniformly Applied Conditions of Approval

The City of Oakland's Standard and Uniformly Applied Conditions of Approval (Standard Conditions of Approval or SCA) would apply to development projects facilitated by the proposed Station Area Plan.

SCA-F. Greenhouse Gas (GHG) Reduction Plan

This SCA applies under any of the following scenarios:

- Scenario A: Projects which (a) involve a land use development (i.e., a project that does not require a permit from the BAAQMD to operate), (b) exceed the greenhouse gas (GHG) emissions

screening criteria contained in the BAAQMD CEQA Guidelines,[18] AND (c) after a GHG analysis is prepared would produce total GHG emissions of more than 1,100 metric tons of CO2e annually AND more than 4.6 metric tons of CO2e per service population annually (with "service population" defined as the total number of employees and residents of the project).

- Scenario B: Projects which (a) involve a land use development, (b) exceed the GHG emissions screening criteria contained in the BAAQMD CEQA Guidelines, (c) after a GHG analysis is prepared would exceed at least one of the BAAQMD Thresholds of Significance (more than 1,100 metric tons of CO2e annually OR more than 4.6 metric tons of CO2e per service population annually), AND (d) are considered to be "Very Large Projects."[19]

  Scenario C: Projects which (a) involve a stationary source of GHG (i.e., a project that requires a permit from BAAQMD to operate) AND (b) after a GHG analysis is prepared would produce total GHG emissions of more than 10,000 metric tons of CO2e annually.

Prior to issuance of a construction-related permit and ongoing as specified

The project applicant shall retain a qualified air quality consultant to develop a Greenhouse Gas (GHG) Reduction Plan for City review and approval. The applicant shall implement the approved GHG Reduction Plan.

The goal of the GHG Reduction Plan shall be to increase energy efficiency and reduce GHG emissions to below *[INCLUDE IF SCENARIO A OR B] at least one of the Bay Area Quality Management District's (BAAQMD's) CEQA Thresholds of Significance (1,100 metric tons of CO2e per year or 4.6 metric tons of CO2e per year per service population) [INCLUDE IF SCENARIO C] the Bay Area Quality Management District's (BAAQMD's) CEQA Thresholds of Significance (10,000 metric tons of CO2e per year) [INCLUDE IF SCENARIO B] AND to reduce GHG emissions by 36 percent below the project's "adjusted" baseline GHG emissions (as explained below)* to help achieve the City's goal of reducing GHG emissions. The GHG Reduction Plan shall include, at a minimum, (a) a detailed GHG emissions inventory for the project under a "business-as-usual" scenario with no consideration of project design features, or other energy efficiencies; (b) an "adjusted" baseline GHG emissions inventory for the project, taking into consideration energy efficiencies included as part of the project (including the City's Standard Conditions of Approval, proposed mitigation measures, project design features, and other City requirements); (c) a comprehensive set of quantified <u>additional</u> GHG reduction measures available to

[18] For residential development projects, refer to the City's 2007-2014 Housing Element EIR screening criteria. The Housing Element EIR's analysis showed that residential development projects of less than172 units would not result in a significant climate change impact and, therefore, no project-specific GHG analysis is required for such projects. Under an alternative approach in the Housing Element EIR, the analysis found that ANY residential development project (including those containing 172 or more units) would not result in a significant climate change impact and that no project-specific GHG analysis would be required. For residential projects containing 172 or more units, please consult with City Planning staff and the City Attorney's office on the appropriate GHG review. For non-residential development projects and mixed-use development projects, the non-residential component of the project must be compared to the BAAQMD screening criteria and the applicable threshold if the screening criteria are exceeded, independently from any residential component the project.

[19] A "Very Large Project" is defined as any of the following: (A) Residential development of more than 500 dwelling units; (B) Shopping center or business establishment employing more than 1,000 persons or encompassing more than 500,000 square feet of floor space; (C) Commercial office building employing more than 1,000 persons or encompassing more than 250,000 square feet of floor space; (D) Hotel/motel development of more than 500 rooms; (E) Industrial, manufacturing, processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or encompassing more than 650,000 square feet of floor area; or (F) Any combination of smaller versions of the above that when combined result in equivalent annual GHG emissions as the above.

further reduce GHG emissions beyond the adjusted GHG emissions; and (d) requirements for ongoing monitoring and reporting to demonstrate that the additional GHG reduction measures are being implemented. If the project is to be constructed in phases, the GHG Reduction Plan shall provide GHG emission scenarios by phase.

Specifically**,** the applicant/sponsor of projects that fulfill Scenario A, B or C, above, shall adhere to the following:

a. ***GHG Reduction Measures Program.*** Prepare and submit to the City Planning Director or his/her designee for review and approval a GHG Reduction Plan that specifies and quantifies GHG reduction measures that the project will implement by phase.

   Potential GHG reduction measures to be considered include, but are not be limited to, measures recommended in BAAQMD's latest CEQA Air Quality Guidelines, the California Air Resources Board Scoping Plan (December 2008, as may be revised), the California Air Pollution Control Officers Association (CAPCOA) Quantifying Greenhouse Gas Mitigation Measures Document (August 2010, as may be revised), the California Attorney General's website, and Reference Guides on Leadership in Energy and Environmental Design (LEED) published by the U.S. Green Building Council.

   The proposed GHG reduction measures must be reviewed and approved by the City Planning Director or his/her designee. The types of allowable GHG reduction measures include the following (listed in order of City preference): (1) physical design features; (2) operational features; and (3) the payment of fees to fund GHG-reducing programs (i.e., the purchase of "offset carbon credits," pursuant to item "b" below).

   The allowable locations of the GHG reduction measures include the following (listed in order of City preference): (1) the project site; (2) off-site within the City of Oakland; (3) off-site within the San Francisco Bay Area Air Basin; (4) off-site within the State of California; then (5) elsewhere in the United States.

b. ***Offset Carbon Credits Guidelines.*** For GHG reduction measures involving the purchase of offset carbon credits, evidence of the payment/purchase shall be submitted to the City Planning Director or his/her designee for review and approval prior to completion of the project (or prior to completion of the project phase, if the project includes more one phase).

   As with preferred locations for the implementation of all GHG reductions measures, the preference for offset carbon credit purchases include those that can be achieved as follows (listed in order of City preference): (1) within the City of Oakland; (2) within the San Francisco Bay Area Air Basin; (3) within the State of California; then (4) elsewhere in the United States. The cost of offset carbon credit purchases shall be based on current market value at the time purchased and shall be based on the Project's operational emissions estimated in the GHG Reduction Plan or subsequent approved emissions inventory, which may result in emissions that are higher or lower than those estimated in the GHG Reduction Plan.

c. ***Plan Implementation and Documentation.*** For physical GHG reduction measures to be incorporated into the design of the project, the measures shall be included on the drawings submitted for construction-related permits. For operational GHG reduction measures to be incorporated into the project, the measures shall be implemented on an indefinite and ongoing basis beginning at the time of project completion (or at the completion of the project phase for phased projects).

For physical GHG reduction measures to be incorporated into off-site projects, the measures shall be included on drawings and submitted to the City Planning Director or his/her designee for review and approval and then installed prior to completion of the subject project (or prior to completion of the project phase for phased projects). For operational GHG reduction measures to be incorporated into off-site projects, the measures shall be implemented on an indefinite and ongoing basis beginning at the time of completion of the subject project (or at the completion of the project phase for phased projects).

d. ***Compliance, Monitoring, and Reporting.*** Upon City review and approval of the GHG Reduction Plan program by phase, the applicant/sponsor shall satisfy the following requirements for ongoing monitoring and reporting to demonstrate that the additional GHG reduction measures are being implemented. The GHG Reduction Plan requires regular periodic evaluation over the life of the Project (generally estimated to be at least 40 years) to determine how the Plan is achieving required GHG emissions reductions over time, as well as the efficacy of the specific additional GHG reduction measures identified in the Plan.

   Implementation of the GHG reduction measures and related requirements shall be ensured through the project applicant/sponsor's compliance with Conditions of Approval adopted for the project. Generally, starting two years after the City issues the first Certificate of Occupancy for the project, the project applicant/sponsor shall prepare each year of the useful life of the project an Annual GHG Emissions Reduction Report (Annual Report), subject to the City Planning Director or his/her designee for review and approval. The Annual Report shall be submitted to an independent reviewer of the City Planning Director's or his/her designee's choosing, to be paid for by the project applicant/sponsor (see Funding, below), within two months of the anniversary of the Certificate of Occupancy.

   The Annual Report shall summarize the project's implementation of GHG reduction measures over the preceding year, intended upcoming changes, and compliance with the conditions of the Plan, and include a brief summary of the previous year's Annual Report results (starting the second year). The Annual Report shall include a comparison of annual project emissions to the baseline emissions reported in the GHG Plan.

   The GHG Reduction Plan shall be considered fully attained when project emissions are less than either applicable numeric BAAQMD CEQA Threshold *[INCLUDE IF SCENARIO B] AND GHG emissions are 36 percent below the project's "adjusted" baseline GHG emissions*, as confirmed by the City Planning Director or his/her designee through an established monitoring program. Monitoring and reporting activities will continue at the City's discretion, as discussed below.

e. ***Funding.*** Within two months after the Certificate of Occupancy, the project applicant/sponsor shall fund an escrow-type account or endowment fund to be used exclusively for preparation of Annual Reports and review and evaluation by the City Planning Director or his/her designee, or its selected peer reviewers. The escrow-type account shall be initially funded by the project applicant/sponsor in an amount determined by the City Planning Director or his/her designee and shall be replenished by the project applicant/sponsor so that the amount does not fall below an amount determined by the City Planning Director or his/her designee. The mechanism of this account shall be mutually agreed upon by the project applicant/sponsor and the City Planning Director or his/her designee, including the ability of the City to access the funds if the project applicant/sponsor is not complying with the GHG Reduction Plan requirements, and/or to reimburse the City for its monitoring and enforcement costs.

f. ***Corrective Procedure.*** If the third Annual Report, or any report thereafter, indicates that, in spite of the implementation of the GHG Reduction Plan, the project is not achieving the GHG

reduction goal, the project applicant/sponsor shall prepare a report for City review and approval, which proposes additional or revised GHG measures to better achieve the GHG emissions reduction goals, including without limitation, a discussion on the feasibility and effectiveness of the menu of other additional measures (Corrective GHG Action Plan). The project applicant/sponsor shall then implement the approved Corrective GHG Action Plan.

If, one year after the Corrective GHG Action Plan is implemented, the required GHG emissions reduction target is still not being achieved, or if the project applicant/owner fails to submit a report at the times described above, or if the reports do not meet City requirements outlined above, the City Planning Director or his/her designee may, in addition to its other remedies, (a) assess the project applicant/sponsor a financial penalty based upon actual percentage reduction in GHG emissions as compared to the percent reduction in GHG emissions established in the GHG Reduction Plan; or (b) refer the matter to the City Planning Commission for scheduling of a compliance hearing to determine whether the project's approvals should be revoked, altered or additional conditions of approval imposed.

The penalty as described in (a) above shall be determined by the City Planning Director or his/her designee and be commensurate with the percentage GHG emissions reduction not achieved (compared to the applicable numeric significance thresholds) or required percentage reduction from the "adjusted" baseline.

In determining whether a financial penalty or other remedy is appropriate, the City shall not impose a penalty if the project applicant/sponsor has made a good faith effort to comply with the GHG Reduction Plan.

The City would only have the ability to impose a monetary penalty after a reasonable cure period and in accordance with the enforcement process outlined in Planning Code Chapter 17.152. If a financial penalty is imposed, such penalty sums shall be used by the City solely toward the implementation of the GHG Reduction Plan.

g. ***Timeline Discretion and Summary.*** The City Planning Director or his/her designee shall have the discretion to reasonably modify the timing of reporting, with reasonable notice and opportunity to comment by the applicant, to coincide with other related monitoring and reporting required for the project.

1. Fund Escrow-type Account for City Review: Certificate of Occupancy plus two months
2. Submit Baseline Inventory of "Actual Adjusted Emissions:" Certificate of Occupancy plus one year
3. Submit Annual Report #1: Certificate of Occupancy plus two years
4. Submit Corrective GHG Action Plan (if needed): Certificate of Occupancy plus four years (based on findings of Annual Report #3)
5. Post Attainment Annual Reports: Minimum every three years and at the City Planning Director's or his/her designee's reasonable discretion.

SCA-A. Construction-Related Air Pollution Controls (Dust and Equipment Emissions)[20]

Ongoing throughout demolition, grading, and/or construction

During construction, the project applicant shall require the construction contractor to implement all of the following applicable measures recommended by the BAAQMD:

BASIC[21]

a. Water all exposed surfaces of active construction areas at least twice daily. Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever possible.

b. Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer).

c. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

d. Pave all roadways, driveways, sidewalks, etc. as soon as feasible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.

e. Enclose, cover, and water twice daily or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.).

f. Limit vehicle speeds on unpaved roads to 15 miles per hour.

g. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485, of the California Code of Regulations. Clear signage to this effect shall be provided for construction workers at all access points.

h. All construction equipment shall be maintained and properly tuned in accordance with the manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

i. Post a publicly visible sign that includes the contractor's name and telephone number to contact regarding dust complaints. When contacted, the contractor shall respond and take corrective action within 48 hours. The telephone numbers of contacts at the City and the BAAQMD shall also be visible. This information may be posted on other required on-site signage.

[20] Note: This SCA replaces the 2008 City of Oakland SCAs for Dust Control (SCA 26) and Construction Emissions (SCA 27) and applies to ALL construction projects.

[21] Applies to ALL construction sites.

ENHANCED:[22]

a. All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe.

b. All excavation, grading, and demolition activities shall be suspended when average wind speeds exceed 20 mph.

c. Install sandbags or other erosion control measures to prevent silt runoff to public roadways.

d. Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for one month or more).

e. Designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust off-site. Their duties shall include holidays and weekend periods when work may not be in progress.

f. Install appropriate wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of the construction site to minimize windblown dust. Wind breaks must have a maximum 50 percent air porosity.

g. Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.

h. The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time.

i. All trucks and equipment, including tires, shall be washed off prior to leaving the site.

j. Site accesses to a distance of 100 feet from the paved road shall be treated with a 6- to 12-inch compacted layer of wood chips, mulch, or gravel.

k. Minimize the idling time of diesel-powered construction equipment to two minutes.

l. The project applicant shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20-percent NOx reduction and 45-percent particulate matter (PM) reduction compared to the most recent California Air Resources Board (CARB) fleet average. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as they become available.

m. Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., BAAQMD Regulation 8, Rule 3: Architectural Coatings).

[22] All "Basic" controls listed plus the following controls if the project involves: i) 114 or more single-family dwelling units; ii) 240 or more multi-family units; iii) Non-residential uses that exceed the applicable screening size listed in the Bay Area Air Quality Management District's CEQA Guidelines; iv) Demolition permit; v) Simultaneous occurrence of more than two construction phases (e.g., grading and building construction occurring simultaneously); vi) Extensive site preparation (i.e., the construction site is four acres or more in size); or vii) Extensive soil transport (i.e., 10,000 or more cubic yards of soil import/export).

n. All construction equipment, diesel trucks, and generators shall be equipped with Best Available Control Technology for emission reductions of NOx and PM.

o. Off-road heavy diesel engines shall meet the CARB's most recent certification standard.

SCA-H. Compliance with the Green Building Ordinance, OMC Chapter 18.02[23]

Prior to issuance of a demolition, grading, or building permit

The applicant shall comply with the requirements of the California Green Building Standards (CALGreen) mandatory measures and the applicable requirements of the Green Building Ordinance, OMC Chapter 18.02.

a. The following information shall be submitted to the Building Services Division for review and approval with the application for a building permit:

1. Documentation showing compliance with Title 24 of the 2008 California Building Energy Efficiency Standards.
2. Completed copy of the final green building checklist approved during the review of the Planning and Zoning permit.
3. Copy of the Unreasonable Hardship Exemption, if granted, during the review of the Planning and Zoning permit.
4. Permit plans that show, in general notes, detailed design drawings, and specifications as necessary, compliance with the items listed in subsection (b) below.
5. Copy of the signed statement by the Green Building Certifier approved during the review of the Planning and Zoning permit that the project complied with the requirements of the Green Building Ordinance.
6. Signed statement by the Green Building Certifier that the project still complies with the requirements of the Green Building Ordinance, unless an Unreasonable Hardship Exemption was granted during the review of the Planning and Zoning permit.
7. Other documentation as deemed necessary by the City to demonstrate compliance with the Green Building Ordinance.

a. The set of plans in subsection (a) shall demonstrate compliance with the following:

1. CALGreen mandatory measures.
2. All pre-requisites per the LEED/GreenPoint Rated checklist approved during the review of the Planning and Zoning permit, or, if applicable, all the green building measures approved as part of the Unreasonable Hardship Exemption granted during the review of the Planning and Zoning permit.

[23] The SCA below applies to the projects listed below:

- Residential: a) New Construction of a One- or Two-Family Dwelling; b) New Construction of a Multi-Family Dwelling (3+ units); c) Additions or Alterations to a One- or Two-Family Dwelling that is over 1,000 sq. ft. of total floor area; e) Construction of or Alteration to Residential Units (any amount) that receive City or Redevelopment Funding (e.g., NOFA projects)
- Non-Residential: a) New Construction of Non-Residential Building over 25,000 sq. ft. of total floor area; b) Major Alterations (see Green Building Definitions) over 25,000 sq. ft. of total floor area to a Non-Residential Building.

3. Insert green building point level/certification requirement: (See Green Building Summary Table; for New Construction of Residential or Non-residential projects that remove a Historic Resource (as defined by the Green Building Ordinance) the point level certification requirement is 75 points for residential and LEED Gold for non-residential) per the appropriate checklist approved during the Planning entitlement process.

4. All green building points identified on the checklist approved during review of the Planning and Zoning permit, unless a Request for Revision Plan-check application is submitted and approved by the Planning and Zoning Division that shows the previously approved points that will be eliminated or substituted.

5. The required green building point minimums in the appropriate credit categories.

During construction

The applicant shall comply with the applicable requirements CALGreen and the Green Building Ordinance, Chapter 18.02.

a. The following information shall be submitted to the Building Inspections Division of the Building Services Division for review and approval:

1. Completed copies of the green building checklists approved during the review of the Planning and Zoning permit and during the review of the building permit.

2. Signed statement(s) by the Green Building Certifier during all relevant phases of construction that the project complies with the requirements of the Green Building Ordinance.

3. Other documentation as deemed necessary by the City to demonstrate compliance with the Green Building Ordinance.

After construction, as specified below

Within sixty (60) days of the final inspection of the building permit for the project, the Green Building Certifier shall submit the appropriate documentation to *Build It Green / Green Building Certification Institute* and attain the minimum certification/point level identified in subsection (a) above. Within one year of the final inspection of the building permit for the project, the applicant shall submit to the Planning and Zoning Division the Certificate from the organization listed above demonstrating certification and compliance with the minimum point/certification level noted above.

SCA-I. Compliance with the Green Building Ordinance, OMC Chapter 18.02, for Building and Landscape Projects Using the StopWaste.Org Small Commercial or Bay Friendly Basic Landscape Checklist[24]

Prior to issuance of a building permit

The applicant shall comply with the requirements of the California Green Building Standards (CALGreen) mandatory measures and the applicable requirements of the Green Building Ordinance, (OMC Chapter 18.02.) for projects using the StopWaste.Org Small Commercial or Bay Friendly Basic Landscape Checklist.

a. The following information shall be submitted to the Building Services Division for review and approval with application for a Building permit:

   1. Documentation showing compliance with the 2008 Title 24, California Building Energy Efficiency Standards.

   2. Completed copy of the green building checklist approved during the review of a Planning and Zoning permit.

   3. Permit plans that show in general notes, detailed design drawings and specifications as necessary compliance with the items listed in subsection (b) below.

   4. Other documentation to prove compliance.

b. The set of plans in subsection (a) shall demonstrate compliance with the following:

   1. CALGreen mandatory measures.

   2. All applicable green building measures identified on the StopWaste.Org checklist approved during the review of a Planning and Zoning permit, or submittal of a Request for Revision Plan-check application that shows the previously approved points that will be eliminated or substituted.

During construction

The applicant shall comply with the applicable requirements of CALGreen and Green Building Ordinance, Chapter 18.02 for projects using the StopWaste.Org Small Commercial or Bay Friendly Basic Landscape Checklist.

a. The following information shall be submitted to the Building Inspections Division for review and approval:

   1. Completed copy of the green building checklists approved during review of the Planning and Zoning permit and during the review of the Building permit.

[24] This SCA applies to the following types of projects AND that are rated using the Small Commercial or Bay Friendly Basic Landscape Checklists: a) New Construction of Non-Residential Buildings between 5,000 and 25,000 sq. ft. of total floor area; b) Alterations/Alterations 5,000 and 25,000 sq. ft. of total floor area to a Non-Residential Building; c) Additions/Alterations (not meeting the Major Alteration Definition) over 25,000 sq. ft. of total floor area to a Non-Residential Building; d) Alterations/Alterations 5,000 and 25,000 sq. ft. of total floor area to a Historic Non-Residential Building; e) Additions/Alterations (not meeting the Major Alteration Definition) over 25,000 sq. ft. of total floor area to a Historic Non-Residential Building; f) Construction projects with over 25,000 sq. ft. of total floor area of new construction requiring a landscape plan.

2. Other documentation as deemed necessary by the City to demonstrate compliance with the Green Building Ordinance.

SCA-24. Construction Management Plan

Prior to issuance of a demolition, grading, or building permit

The project applicant shall submit to the Planning and Zoning Division and the Building Services Division for review and approval a construction management plan that identifies the conditions of approval *and mitigation measures* related to construction impacts of the project and explains how the project applicant will comply with these construction-related conditions of approval *and mitigation measures*.

SCA-25. Parking and Transportation Demand Management[25]

Prior to issuance of a final inspection of the building permit

The applicant shall submit for review and approval by the Planning and Zoning Division a Transportation Demand Management (TDM) plan containing strategies to reduce on-site parking demand and single occupancy vehicle travel. The applicant shall implement the approved TDM plan. The TDM shall include strategies to increase bicycle, pedestrian, transit, and carpools/vanpool use. All four modes of travel shall be considered. Strategies to consider include the following:

a. Inclusion of additional bicycle parking, shower, and locker facilities that exceed the requirement

b. Construction of bike lanes per the Bicycle Master Plan; Priority Bikeway Projects

c. Signage and striping on-site to encourage bike safety

d. Installation of safety elements per the Pedestrian Master Plan (such as cross walk striping, curb ramps, count down signals, bulb outs, etc.) to encourage convenient crossing at arterials

e. Installation of amenities such as lighting, street trees, trash receptacles per the Pedestrian Master Plan and any applicable streetscape plan.

f. Direct transit sales or subsidized transit passes

g. Guaranteed ride home program

h. Pre-tax commuter benefits (checks)

i. On-site car-sharing program (such as City Car Share, Zip Car, etc.)

j. On-site carpooling program

k. Distribution of information concerning alternative transportation options

l. Parking spaces sold/leased separately

m. Parking management strategies; including attendant/valet parking and shared parking spaces

[25] These Development Standards apply to ALL projects involving 50 or more new residential units or 50,000 sq. ft. or more of new nonresidential space.

SCA-36. Waste Reduction and Recycling[26]

The project applicant will submit a Construction & Demolition Waste Reduction and Recycling Plan (WRRP) and an Operational Diversion Plan (ODP) for review and approval by the Public Works Agency.

Prior to issuance of demolition, grading, or building permit

Chapter 15.34 of the Oakland Municipal Code outlines requirements for reducing waste and optimizing construction and demolition (C&D) recycling. Affected projects include all new construction, renovations/alterations/modifications with construction values of $50,000 or more (except R-3), and all demolition (including soft demo). The WRRP must specify the methods by which the development will divert C&D debris waste generated by the proposed Plan from landfill disposal in accordance with current City requirements. Current standards, FAQs, and forms are available at www.oaklandpw.com/Page39.aspx or in the Green Building Resource Center. After approval of the plan, the project applicant shall implement the plan.

Ongoing

The ODP will identify how the project complies with the Recycling Space Allocation Ordinance, (Chapter 17.118 of the Oakland Municipal Code), including capacity calculations, and specify the methods by which the development will meet the current diversion of solid waste generated by operation of the proposed Plan from landfill disposal in accordance with current City requirements. The proposed program shall be in implemented and maintained for the duration of the proposed activity or facility. Changes to the plan may be re-submitted to the Environmental Services Division of the Public Works Agency for review and approval. Any incentive programs shall remain fully operational as long as residents and businesses exist at the project site.

SCAs Regarding Landscape Requirements and Tree Replacement

Several SCAs address landscape requirements for frontages of commercial buildings and replacement of trees removed as part of a project. Projects are required to install one tree for every 25 feet of street frontage in cases where sidewalks have adequate width. Additionally, SCAs generally require the replacement of native trees removed as part of a project. Together, these SCAs that maintain and increase landscaping and trees create a cooler climate, reduce excessive solar gain, and absorb CO_2e emissions for a contribution to emission reductions. SCA 12, SCA 13, SCA 15, SCA 17, and SCA 18 are initially presented in Section 3.9: Aesthetics, of this Draft EIR; and SCA 46 is initially presented in Section 3.11: Biological Resources, in this Draft EIR.

SCAs Regarding Stormwater Management

Consistent with regional stormwater management programs and requirements that projects must comply with, the City has several SCAs that aim to reduce post-construction stormwater runoff that could affect the ability to accommodate potentially increased storms and flooding within existing floodplains and infrastructure systems. These SCAs are relevant as climate change can result in increased flooding due to warmer climate (e.g., earlier and greater melting of snowpack) and inadequate infrastructure. See SCA 55 and SCA 75 in Section 3.7: Utilities and Service Systems, and SCA 83, in Section 3.11: Biological Resources, in this Draft EIR.

[26] These Development Standards apply to ALL construction projects.

FINDINGS OF THE HOUSING ELEMENT EIR

The Housing Element Final EIR (November 2010) analyzed the impact of GHG emissions increases due to residential development, considering both the plan- and project-level thresholds for $MTCO_2e$ per service population, plan consistency with GHG reducing plans, policies, and regulations, and cumulative impacts. No significant impacts were identified.

The Housing Element EIR concluded that future residential development projects evaluated under the Housing Element would result in less than significant GHG impacts and would not be required to undergo project-specific GHG analysis under CEQA because (a) residential development under the *Housing Element* would not exceed the BAAQMD project-level Threshold of 4.6 $MTCO_2e$ per service population; or (b) alternatively, individual residential developments of less than 172 units would not exceed the BAAQMD project-level Threshold of 1,100 $MTCO_2e$. This finding assumed that qualifying developments adhered to 2008 Title 24 standards (described in the *Regulatory Setting*) and conformed to the development patterns identified in the Housing Element Project Design Features.

The EIR further concluded that the 2007-2014 Housing Element would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions, and the Housing Element would not result in a cumulatively considerable contribution to a cumulative impact from GHG emissions.

Impact Analysis

THRESHOLDS OF SIGNIFICANCE

Consistent with City guidance, the Lake Merritt Station Area Plan is assessed using the project-level threshold for GHG emissions.[27] The project would have a significant impact on the environment if it would:

1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, specifically:

   Project Level Impacts

   a. For a project involving a stationary source, produce total emissions of more than 10,000 metric tons of CO_2e annually. Stationary sources are projects that require a BAAQMD permit to operate.

   b. For a project involving a land use development, produce total emissions of more than 1,100 metric tons of CO_2e annually AND more than 4.6 metric tons of CO_2e per service population annually.[28]

[27] Per the City of Oakland 2013 CEQA Thresholds of Significance, Specific Plans – such as the Lake Merritt Station Area Plan – should be assessed against the more stringent project-level thresholds. The Plan-Level impact threshold applies to General Plans only.

[28] Land use developments are projects that do not require a BAAQMD permit to operate. The service population includes both the residents and the employees of the project. The project's impact would be considered significant if the emissions exceed BOTH the 1,100 metric tons threshold and the 4.6 metric tons threshold. Accordingly, the impact would be considered less than significant if the project's emissions are below EITHER of these thresholds.

2. Fundamentally conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing greenhouse gas emissions.

The potential effects of sea level rise on the proposed Station Area Plan are discussed in Section 3.14: Hydrology and Water Quality, of this EIR.

METHODOLOGY AND ASSUMPTIONS

The methodology applied here assumes that all emission sources associated with implementation of the proposed Plan would be new sources that would combine with existing conditions. For this assessment, it is not possible to predict whether emission sources (residents and businesses) associated with the project would move from outside the air basin (and thus generate "new" emissions within the air basin), or whether they are sources that already exist and are merely relocated within the air basin. Because the effects of GHGs are global, if the project merely shifts the location of the GHG-emitting activities (locations of residences and businesses and where people drive), there would not be a net new increase of emissions.

In order to evaluate Threshold 1, the CalEEMod GHG emissions model is used to assess the emissions generated, directly or indirectly, by implementation of the proposed Station Area Plan, and then total emissions are compared to the service population. It is noted that the project-level threshold is more stringent than the City's plan-level CEQA threshold (4.6 rather than 6.6), indicating that by meeting the project-level threshold, the proposed Plan would necessarily meet the plan-level threshold. To evaluate Threshold 2, the proposed Plan is compared with applicable plans, policies, and regulations adopted for the purposes of reducing greenhouse gas emissions.

CalEEMod

CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with both construction and operations from a variety of land use projects. The model quantifies direct emissions from construction and operations (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. The model incorporates Pavley standards and Low-Carbon Fuel Standards into the mobile source emission factors for future years.

Default data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) have been provided by the various California air districts to account for local requirements and conditions, and the model includes default estimates from sources such as the US EPA AP-42 emission factors, the California ARB vehicle emission models, studies commissioned by California agencies such as the California Energy commission (CEC) and Calrecycle. Detailed vehicle emission factors and fleet mix are based on EMFAC2007. Default estimates are changed where more accurate information related to the proposed Plan is known. All changes to default values are noted and detailed in Appendix E.

Finally, the model identifies 'mitigation measures' to reduce criteria pollutant and GHG emissions along with calculating the benefits achieved from measures chosen by the user; Impact GHG-1 outlines all measures incorporated in the assessment of the proposed Plan. The GHG mitigation measures incorporated in the model were developed and adopted by the California Air Pollution Control Officers Association (CAPCOA). Model outputs provide emissions estimates for unmitigated project emissions

that represent 'business as usual' development (default GHG emissions) and mitigated project emissions that incorporate existing City policies and SCAs, and proposed Plan components, as outlined under Impact GHG-1 (modified GHG emissions).

Operational Emissions

CalEEMod is used to estimate operational emissions based on detailed land use inputs for the proposed Station Area Plan. Default values for mobile, area, energy use, and solid waste operations are used. Wastewater treatment values are updated based on input from EBMUD.[29]

Construction Emissions

CalEEMod is also used to estimate construction-related emissions, detailed in Appendix E, by phase. The estimation of construction-related emissions is based on default values in the model. No construction mitigation measures were assumed. GHG emissions during construction are annualized over a period of 40 years and added to the annual operational emissions for comparison to the threshold. A 40-year period is used because 40 years is considered the average life expectancy of a building before it is remodeled with considerations for increased energy efficiency. The City of Oakland thresholds of significance for GHG emissions are based on previous BAAQMD thresholds that were originally developed for project operation impacts only. Therefore, combining both the construction emissions and operation emissions for comparison to the threshold represents a conservative analysis of potential greenhouse gas impacts.

GHG Effects on Flooding and Sea-level Rise

The Planning Area is located in an area that may be subject to coastal or other flooding resulting from climate change (the nearest coastal shoreline is along the Oakland Estuary, with potential impacts associated with the Lake Merritt Channel and the Lake itself). The potential effects of sea level rise on the proposed Station Area Plan are discussed in Section 3.14: Hydrology and Water Quality, of this EIR.

SUMMARY OF IMPACTS

Implementation of the proposed Station Area Plan would include substantial new development of mid- and high-rise buildings, office, and retail uses. These uses would result in greenhouse gas emissions through construction and operation (including vehicle use as a result of new land uses). However, no significant impacts are found in relation to GHG emissions from the proposed Station Area Plan.

Impact GHG-1 – Generation of Greenhouse Gas Emissions

Implementation of the proposed Station Area Plan would produce GHG emissions that exceed 1,100 metric tons of CO_2e per year, but that would not exceed 4.6 metric tons of CO_2e per service population annually, or exceed 10,000 metric tons of CO_2e per stationary source, resulting in a less than significant impact.

[29] Chakrabarti, Alicia, East Bay Municipal Utility District Associate Civil Engineer, Wastewater Planning. Email correspondence, September 5, 2012.

Impact GHG-2 –GHG Reduction Plan Conflicts

New development under the proposed Plan would not conflict with an applicable plan, policy or regulation of an appropriate regulatory agency adopted for the purpose of reducing greenhouse gas emissions.

Impact GHG-3 – Cumulative Impact

While regional GHG emissions as a whole are a significant cumulative impact, the analysis conducted for Impacts GHG-1 and GHG-2 indicate that the proposed Station Area Plan would not make a considerable contribution to the impact, resulting in a less than significant impact.

IMPACTS

Impact GHG-1

New development under the proposed Plan would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, specifically: for a project involving a land use development, produce total emissions of more than 1,100 metric tons of CO_2e annually AND more than 4.6 metric tons of CO_2e per service population annually; or for a project involving a stationary source, produce total emissions of more than 10,000 metric tons of CO_2e annually. *(Less than Significant)*

Construction and Operation Emissions for Land Use Development

Construction and operation of the proposed Plan would generate GHG emissions, with the majority of GHG emissions generated during operation. As noted in the thresholds of significance, the proposed Plan impact would be considered significant if the emissions exceed both the 1,100 metric tons threshold and the 4.6 metric tons threshold. Accordingly, the impact is considered less than significant if the proposed Plan's emissions are below either of these thresholds.

Table 3.4-4 presents an overview of the annual emissions (by type of activity) that are expected to result from implementation of the proposed Station Area Plan, and compares the emissions to the expected service population and the thresholds of significance. Overall, the following activities associated with a typical development could contribute to the generation of GHG emissions. For each activity, emissions associated with the project are estimated based on outputs from the CalEEMod model. The model allows adjustments based on potential 'mitigations.' In this EIR these measures represent existing City policies or SCAs and/or proposed Plan components, as described below. For clarity, the 'unmitigated emissions' that represent emissions from 'business as usual' are referred to as 'default,' while 'mitigated emissions' that represent the modeled estimate based on the incorporation of proposed Plan and existing City of Oakland policy, are referred to as 'modified.'

- *Mobile Emissions from Vehicle Use* – Transportation associated with the proposed Station Area Plan would result in GHG emissions from the combustion of fossil fuels in daily automobile and truck trips.

  CalEEmod estimates annual modified mobile emissions at 23,758 metric tons of CO_2e ($MTCO_2e$) (default emissions are estimated at 37,621 $MTCO_2e$). Modifications incorporated in the model outputs for mobile emissions are based on proposed Station Area Plan policies as well as the City's Standard Conditions of Approval and include: increased density and diversity, improved

walkability and destination accessibility, increased transit accessibility, improved pedestrian network, traffic calming measures, BRT service, and TDM measures including trip reduction programs, transit subsidy, parking cash-out, employee vanpool/shuttle, and ride-share programs.

- *Energy Use (Natural Gas and Electricity)* – Natural gas use results in the emissions of two GHGs: methane (the major component of natural gas) and carbon dioxide from the combustion of natural gas. Methane is released prior to initiation of combustion of the natural gas (as before a flame on a stove is sparked), and from the small amount of methane that is uncombusted in a natural gas flame. Electricity use can result in GHG production if the electricity is generated by combusting fossil fuel.

  CalEEmod estimates annual energy-related operational modified emissions at 15,303 $MTCO_2e$ (default emissions estimated at 16,294 $MTCO_2e$). Modifications incorporated in the model outputs, consistent with the intent of CalGreen Section 4.201, assume that new development will exceed Title 24 by 15 percent.

- *Area Operations* – Emissions are also generated by a range of operational elements, including architectural coatings, consumer products, use of hearths (fireplaces), and landscaping.

  CalEEmod estimates annual modified emissions from these sources at 1,000 $MTCO_2e$ (default emissions are estimated at 1,068 $MTCO_2e$). Modifications incorporated in the model outputs assume use of natural gas hearths only (e.g., no wood-burning fireplaces) and use of low VOC paint (100 EF (g/L) per CalGreen (non-flat coatings).

- *Water and Wastewater Use* – Water use generates GHG emissions in the supply and distribution of water, and wastewater emissions generation depends on the treatment method. The analysis uses default values for water use by land use but identifies a project specific wastewater treatment method—100-percent anaerobic digestion with cogeneration from combustion of digester gas—based on input from EBMUD.

  CalEEmod estimates annual modified emissions from water and wastewater use at 1,336 $MTCO_2e$ (default emissions are estimated at 1,572 $MTCO_2e$). Modifications incorporated in the model outputs assume application of a water conservation strategy with a reduction of 20 percent for indoor uses, consistent with CalGreen.

- *Waste* – GHG emissions from waste are estimated by land use by calculating the total amount of carbon dioxide and methane that would be evolved over the span of many years. The amount of methane emitted depends on characteristics of the landfill. This analysis assumes the default, which is based on the types of landfills assumed by ARB in their GHG emission inventories.

  CalEEmod estimates annual modified emissions from waste generation at 634 $MTCO_2e$ (default emissions are estimated at 1,812 $MTCO_2e$). Modifications incorporated in the model outputs assume improvement of recycling and composting services with a 65-percent diversion based on 2010 data for Oakland.

- *Construction Activities* – Construction equipment typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as carbon dioxide, methane and nitrous oxide. Furthermore, methane is emitted during the fueling of heavy equipment.

  CalEEmod estimates total emissions from all construction activities at 25,436 $MTCO_2e$; when annualized over 40 years, annual construction emissions are estimated at 636 $MTCO_2e$. No modifications are assumed for construction activities for this analysis.

Emission sources that are not included in the BAAQMD Guidelines or relevant to the assumed development under the proposed Plan are not included in the adjusted GHG emissions inventory. These sources include emissions generated from permitted stationary source equipment, vegetation sequestration change, fugitive refrigeration emissions, life cycle emissions, agricultural emissions, and off-road equipment emissions.

Table 3.4-3: Greenhouse Gas Emissions as a Result of Development under the Proposed Station Area Plan, Default and Modified

	Annual Default Emissions (CalEEMod output)				*Annual Modified Emissions (CalEEMod output incorporating City and Plan Policies)*			
Emission Source	*CO_2 (MT)*	*CH_4 (MT)*	*N_2O (MT)*	*$MTCO_2e$*	*CO2 (MT)*	*CH_4 (MT)*	*N_2O (MT)*	*$MTCO_2e$*
Mobile Sources	37,598	1.1	-	37,621	23,742	0.75	-	23,758
Energy Use	16,194	0.6	0.3	16,294	15,208	0.58	0.26	15,303
Area Detail	1,034	1.0	0.0	1,068	993	0.08	0.02	1,000
Water and Wastewater	1,414	0.8	0.5	*1,572*	1,209	0.61	0.37	*1,336*
Waste	809	47.8	-	*1,812*	283	16.72	-	*634*
Total Operational Emissions	*57,048*	*51.3*	*0.8*	***58,367***	*41,435*	*18.74*	*0.65*	***42,030***
Annualized Construction Emissions (over 40 years)	635	0.0	-	**636**	635	0.04	-	**636**
Total Emissions	57,683	51.33	0.78	**59,003**	42,070	18.78	0.65	**42,666**
Threshold of Significance Project Level	**-**	**-**	**-**	**1,100**	**-**	**-**	**-**	**1,100**
Exceeds Threshold?	**-**	**-**	**-**	**Yes**	**-**	**-**	**-**	**Yes**
Service Population[1]				14,000				14,000
Total GHG Emissions per Service Population (including construction emissions)	-	-	-	**4.21**	**-**	**-**	**-**	**3.05**
Threshold of Significance Project Level	**-**	**-**	**-**	**4.6**	**-**	**-**	**-**	**4.6**
Exceeds Threshold?	**-**	**-**	**-**	**No**	**-**	**-**	**-**	**No**
Threshold of Significance Plan Level[2]	**-**	**-**	**-**	**6.6**	**-**		**-**	**6.6**
Exceeds Threshold?	**-**	**-**	**-**	**No**	**-**	**-**	**-**	**No**

Notes:

1. The total service population is the sum of the new population (9,900 new residents) plus new jobs (4,100 new jobs).
2. Per the City of Oakland 2011 CEQA Thresholds of Significance, Specific Plans should be assessed against the more stringent project-level threshold of 4.6 $MTCO_2e$ per service population annually. The Plan-Level service population threshold applies to General Plans only, and is provided here for informational purposes only.

Source: Dyett & Bhatia, 2012; CalEEMod, 2012.

As shown in **Table 3.4-3** above, development facilitated by the proposed Station Area Plan would not exceed the project-level significance thresholds applicable to Specific Plans because, although it would produce total emissions that exceed 1,100 $MTCO_2e$ annually, it would not exceed 4.6 $MTCO_2e$ per service population annually. Therefore, development under the proposed Station Area Plan would result in a less than significant impact since overall emissions are only 3.05 $MTCO_2e$ per service population.

Stationary Sources of GHG Emissions

Future uses that introduce new stationary sources would be subject to BAAQMD review and permitting for new air pollutant and GHG emissions. Further, any proposed new stationary sources would be subject to a separate GHG threshold of significance (10,000 $MTCO_2e$ annually), not the service-population threshold applicable to land use development described above.

Typical stationary sources that would exceed 10,000 $MTCO_2e$ annually include hospitals, landfills, energy companies (including refineries), and utility districts.[30] While this is not an exhaustive list, these projects would not be considered "light industrial" land uses and allowed in the proposed Flex District without additional project review. The BAAQMD found that permit applications with emissions above the 10,000 $MTCO_2e$ annual threshold account for less than 10 percent of stationary source permit applications reviewed by BAAQMD but represent 95 percent of GHG emissions from new permits.

The proposed Station Area Plan does not anticipate new industrial sources and the proposed development potential assumes only new office, housing, retail, and institutional uses. However, while not anticipated as part of the proposed Plan development, the proposed "Flex District" would allow light industrial uses. Allowable new commercial and light industrial growth could introduce new stationary sources of greenhouse gases; the nature of these commercial and light industrial activities would and could include standby power generators, boilers, heaters, or other industrial process sources which would not be likely to exceed 10,000 $MTCO_2e$. It is assumed that development facilitated by the proposed Plan would replace some existing industrial uses with residential, office, and retail uses. Over time this would lead to a decrease in area-wide stationary source emissions, but the precise extent of such replacement cannot be determined with certainty.

Based on the above factors, it is unlikely that future growth in stationary source emissions would produce individual-source emissions that exceed 10,000 $MTCO_2e$ annually, resulting in a less than significant impact with regard to stationary source emissions for implementation of the proposed Plan.

Policies that Reduce the Impact

While no significant impacts have been identified, and no mitigation is required, the proposed Station Area Plan, City of Oakland policies, compliance with the City of Oakland ECAP, and project characteristics and design features would help implement GHG emission reduction strategies, and help to reduce the impact of GHG emissions.

City of Oakland Policies

As outlined in the Regulatory Setting, several City of Oakland policies will serve to reduce greenhouse gas emissions. In particular:

[30] Bay Area Air Quality Management District. Source Inventory of Bay Area Greenhouse Gas Emissions, Base Year 2007, February 2010.

- Green building requirements under the Oakland Green Building Ordinance and CalGreen;
- City Standard Conditions of Approval – in particular SCA F: GHG Reduction Plan, SCA 25: Parking and Transportation Demand Management; SCA 36: Waste Reduction and Recycling; several SCAs regarding landscape requirements and tree replacement; and several SCAs regarding stormwater management; and
- A wide range of General Plan policies, outlined in the regulatory setting, would also reduce GHG emissions.

Other Design Features and Standard Conditions of Approval

The proposed Plan land use strategy seeks to establish a mixed-use, high density, transit-oriented, walkable community; the circulation improvement strategy seeks to improve pedestrian, bicycle, and transit access; and the Design Guidelines seek to further ensure the quality of the pedestrian realm and complement land use and circulation strategies. The Planning Area is well-served with both bus and rail transit, and proposed Plan policies promote locating more housing and employment near these assets. The proposed Plan also recommends consideration of parking pricing strategies.

The following section identifies key design features (as a result of existing City policies and/or proposed Plan components) that result in reduced GHG emissions.

Energy Efficiency – Projects under the proposed Plan would be required to comply with all applicable local, state, and federal regulations associated with the generation of GHG emissions and energy conservation. In particular, construction of the projects under the proposed Plan would also be required to meet stringent energy efficiency standards under CalGreen and the Oakland Green Building Ordinance.

Construction Waste – Projects under the proposed Plan will be required to comply with the Construction and Waste Reduction Ordinance and submit a Construction and Demolition Waste Reduction Plan for review and approval. As a result, construction-related truck traffic, which primarily uses diesel fueled engines, would be reduced since demolition debris that would otherwise be hauled off-site would instead be reused on-site. In addition, reuse of concrete, asphalt, and other debris will reduce the amount of material introduced to area landfills.

Urban Infill and Transit-Oriented Development – The proposed Plan would be a Transit-Oriented Development, developing high-density housing in the central area of Oakland near multiple transit stations (including Bay Area Rapid Transit (BART) stations, AC Transit centers, and other transportation nodes (Amtrak and ferry services are located just south of the Planning Area)). Much of the Planning Area is within four blocks of at least two modes of transit—BART and AC Transit BRT—and within an area developed with pedestrian facilities. Therefore, the project would facilitate walking and non-vehicular travel to a greater extent than would be the case for similar development in outlying areas without extensive transit availability. In addition, the high-density development would include a greater number of potential residents that could potentially utilize or engage in alternative modes of travel than in a lower-density development.

Pedestrian Improvements – The proposed Plan proposes extensive streetscape improvements, including new bulbouts, pedestrian scrambles, landscaping, streetlights, street furniture, wayfinding signage, and cultural markers. These features will help develop a pedestrian-oriented environment that facilitates

walking and transit use. As such, the project would reduce transportation-related GHG emissions by encouraging additional pedestrian trips.

Bicycle Improvements –The proposed Plan proposes extensive bicycle improvements, including additional bicycle parking, orientation of project driveways and entrances to reduce vehicle/bicycle conflicts; and inclusion of bicycle lanes consistent with the Bicycle Master Plan. The use of bicycles for short trips in Oakland would reduce the amount of short trips by automobiles, which are high-polluting trips because the car engines produce more pollutants when they are cold. As such, the project would reduce transportation-related GHG emissions by encouraging additional bicycle trips.

Transportation Demand Management Programs – Projects under the proposed Plan would be required to comply with City of Oakland SCA 25: Parking and Transportation Demand Management requires TDM measures for all projects involving 50 or more new residential units or 50,000 sq. ft. or more of new non-residential space. TDM Programs required by SCA 25 would further reduce the number of vehicle trips and encourage transit or ridesharing. As such, the project would reduce transportation-related GHG emissions by encouraging additional transit trips.

Mitigation Measures

None required.

Impact GHG-2

New development under the proposed Plan would not fundamentally conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing greenhouse gas emissions. ***(Less than Significant)***

The Regulatory Setting section, above, describes the plans, policies, and regulations relevant to the proposed Station Area Plan that are related to the reduction of GHG emissions. Development facilitated by the proposed Station Area Plan would not conflict with these plans, policies, and regulations. Specifically, the proposed Plan would be consistent with the GHG reduction goals of AB 32 because the GHG emissions associated with the implementation of the proposed Plan and future development projects would not exceed the threshold of 4.6 $MMCO_2e$ per service population, which was developed to be consistent with AB 32's goals. Development facilitated by the proposed Station Area Plan would not conflict with the current City Sustainability Programs or General Plan policies or regulations regarding GHG reductions and other local, regional, and statewide plans, policies, and regulations (as discussed in the above Regulatory Setting) that are related to the reduction of GHG emissions. The potential effects of sea level rise on the proposed Station Area Plan are discussed in Section 3.14: Hydrology and Water Quality, of this EIR.

Further, development facilitated by the proposed Station Area Plan would be subject to all the regulatory requirements outlined in Impact GHG-1, including the City's approach to reducing GHG emissions by requiring the preparation and implementation of project-specific GHG Reduction Plans (SCA F), which would reduce GHG emissions of the development facilitated by the proposed Plan to the greatest extent feasible. SCAs also include conditions to address adherence to best management construction practices and equipment use (SCA A) and minimize post-construction stormwater runoff that could affect the ability to accommodate potentially increased storms and flooding within existing floodplains and infrastructure systems (SCA 55, SCA 75), to reduce demand for single occupancy vehicle travel (SCA

25), to increase landscaping to absorb CO_2e emissions (SCA 12, SCA 13, SCA 15, SCA 17, SCA 18, and SCA 46), and facilitate waste reduction and recycling (SCA 36).

The City of Oakland Energy and Climate Action Plan (ECAP) identifies, evaluates and recommends prioritized actions to reduce energy consumption and GHG emissions in Oakland. On July 7, 2009, the Oakland City Council directed staff to develop the draft Oakland ECAP using a GHG reduction target equivalent to 36 percent below 2005 GHG emissions by 2020 (City of Oakland, Resolution No. 82129 C.M.S., 2009). Consistent with that direction, the City Council considered a draft ECAP on March 1, 2011, that identifies energy and climate goals, clarifies policy direction, and identifies priority actions for reducing energy use and GHG emissions, and adopted the final version on December 4, 2012. Development facilitated by the proposed Station Area Plan would be required to comply with the application requirements of the ECAP.

Lastly, the Bay Area 2010 Clean Air Plan provides a comprehensive plan to help reduce greenhouse gas emissions. The proposed Plan policies conform to the control strategies included in the Bay Area 2010 Clean Air Plan. These policies are detailed in Chapter 3.2, Air Quality, and show that the proposed Plan is consistent with the 2010 Bay Area Clean Air Plan control measures.

Overall, development facilitated by the proposed Plan would not fundamentally conflict with any applicable plans, policies or regulations adopted with the intent to reduce GHG emissions, resulting in a less than significant impact.

Mitigation Measures

None required.

Cumulative Impact GHG-3

New development under the proposed Station Area Plan in combination with regional growth would result in a less than considerable contribution to the cumulative effects of global climate change. ***(Less than Significant)***

Concurrent implementation of the proposed Station Area Plan and forecast development of residential and employment land uses in the region could result in increased GHG emissions, thereby contributing to global climate change (GCC). It is reasonable to generalize that GCC is itself a significant cumulative impact; the scientific community has acknowledged its detrimental effects on ecosystems and human communities, and it is caused by the cumulative GHG emissions from human activities across the globe and over many decades. Furthermore, as GCC is accelerated by GHG emissions, any emissions in addition to what exists today in the atmosphere can generally be considered to contribute somewhat to this significant cumulative impact. For the purposes of this EIR, this analysis makes a determination about whether the proposed Station Area Plan makes a cumulatively considerable contribution to the overall cumulative impact.

Past, present, and reasonably foreseeable maximum development projects built under the proposed Station Area Plan would contribute to the region's GHG emissions on a cumulative basis. However, as analyzed above, there is a less than significant impact for GHG emissions generated by the Station Area Plan. At the specific plan level, development under the proposed Station Area Plan could emit 3.86 $MTCO_2e$ per service population per year, which is lower than BAAQMD's project-level threshold of 4.6

MT CO_2e per service population per year, as described in Impact GHG-1. The proposed Station Area Plan is also consistent with GHG-reducing plans, policies, and regulations, as described in Impact GHG-2. Therefore, while regional GHG emissions as a whole are a significant cumulative impact, the analysis conducted for Impacts GHG-1 and GHG-2 indicate that the proposed Station Area Plan does not make a considerable contribution to that impact, resulting in a less than significant impact.

Mitigation Measures

None required.

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3.5 Parks and Recreation

This section provides an overview of the existing parks, open space, and recreational facilities in the Planning Area and surrounding environment, the regulatory framework, an analysis of impacts that would result from implementation of the proposed Station Area Plan, and mitigation measures where appropriate.

Environmental Setting

PHYSICAL SETTING

The Planning Area includes a diverse range of park land, from small neighborhood parks to sections of large, region-serving parks. **Table 3.5-1** identifies the parks within the larger half-mile radius from the Lake Merritt BART Station that encompasses the Planning Area, by park type and acreage. Acreage is also provided for park land within the smaller Planning Area. Park types are based on City of Oakland zoning. Parks are shown in **Figure 3.5-1**.

Special Use Parks

Generally, Special Use Parks are areas for specialized or single purpose activities. Also included are city squares that may lack recreational facilities but which serve an aesthetic function and may have historic significance. The Planning Area has two special use parks: Chinese Garden Park and Madison Square Park. Chinese Garden Park (formerly Harrison Square) features a Hall of Pioneers and Sun Yat Sen Memorial Hall, along with a pagoda. The hall serves as the Hong Lok Senior Center, a drop-in center for seniors ages 55 years and older, but also as a general social hall. Chinese Garden Park has garden areas where people can often be found doing tai-chi, as well as the Chinese Zodiac Garden for gardening. Madison Square Park includes grass areas, as well as a small children's play area. People can also be found at Madison Square Park practicing the arts of tai-chi, qigong and fan dancing. Madison Square Park does not have a community center, and it is not heavily used. Some homeless people use the park during the day.

Neighborhood Park

Generally, neighborhood parks are located in residential areas and/or adjacent to elementary schools, and provide open space for general use by the neighborhood population. Lincoln Park is the Planning Area's neighborhood park. It is adjacent to Lincoln Elementary School. Alice Street has been closed to traffic between Lincoln Park and Lincoln Elementary School and redesigned as recreation space for park users and students at the school, with a multi-purpose field and hardball courts. Lincoln Park includes a recreation center, children's play area, and several basketball courts. It is heavily used by hundreds of people in both daytime and evening hours.

Table 3.5-1: Existing Park Land

Name	*Park Type*	*Definition*[1]	*Station Area Acreage*[2]	*Planning Area Acreage*
Chinese Garden Park (Harrison Square)	Special Use Park	Areas for single purpose activities, or historic or aesthetic sites	1.3	1.3
Madison Square Park	Special Use Park	Areas for single purpose activities, or historic or aesthetic sites	1.4	1.4
Lincoln Square Park	Neighborhood Park	Located in a residential area; located adjacent to elementary schools	1.4	1.4
Lake Merritt Park	Region-Serving Park	Large recreation areas with diverse natural and man-made features	6.5	0.7
Estuary Park	Region-Serving Park	Large recreation areas with diverse natural and man-made features	5.1	-
Peralta Park	Linear Park	Provides linear access to a natural feature such as a creek or shoreline	3.9	3.9
Lake Merritt Channel Park[3]	Linear Park	Provides linear access to a natural feature such as a creek or shoreline	14.9	14.9
Public Parks Acreage			**34.6**	**23.6**

Notes:
1. Open Space Conservation and Recreation Element (OSCAR) of Oakland General Plan, pg. 4-5.
2. Station Area acreage includes land within one-half mile of the Lake Merritt BART Station, excluding water.
3. Lake Merritt Channel Park is currently from East 10th Street to I-880.

Source: City of Oakland 2012; Dyett & Bhatia, 2012.

Region-Serving Parks

There are two region-serving parks in the Planning Area (the larger half-mile ring around the Lake Merritt BART Station): Lake Merritt Park and Estuary Park. Lake Merritt Park rings Lake Merritt, 3.4 miles in circumference and 155 acres in area. Lake Merritt Park includes a variety of smaller parks such as Snow Park and Lakeside Park. Amenities include children's play areas, a putting green, tennis courts and various recreational centers. Less than one acre of this park is currently within the Planning Area. However, improvements under construction will expand this park by 6.5 acres, guided by the 2002 Lake Merritt Park Master Plan.

Estuary Park is located along the Waterfront, south of Embarcadero. Estuary Park includes Jack London Aquatic Center, a community facility providing youth and adult programs in rowing. It also includes a grass field, a public boat launching ramp and a group picnic area. This park is outside the Planning Area but within the larger Station Area.

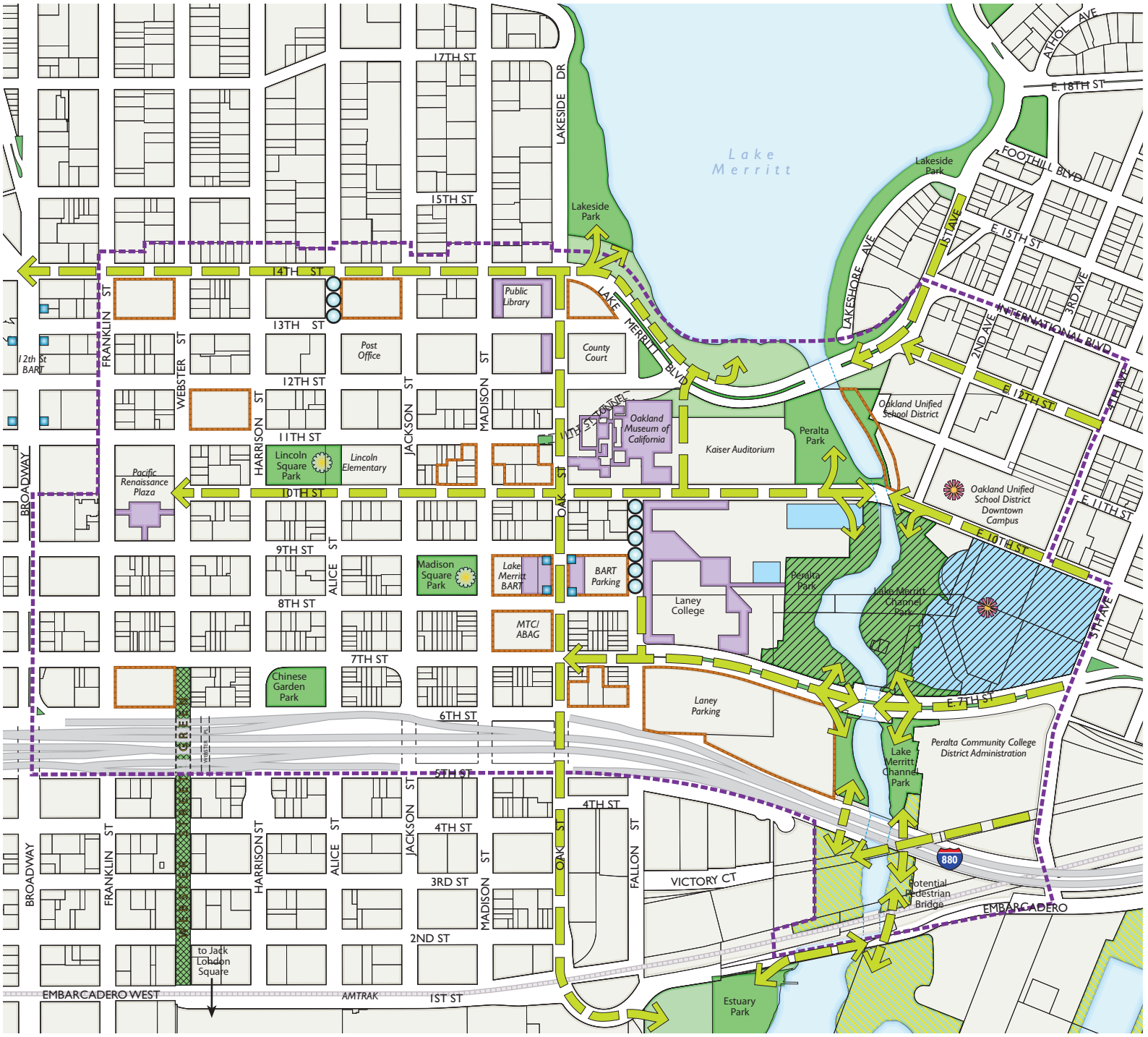

Figure 3.5-1
Existing Parks and Future Open Space Opportunities

- Existing Parks
- New Open Space Planned/Approved/ Under Construction
- Laney Recreational Area
- Public Open Space Owned by Peralta
- Other Publicly Accessible Open Space
- New Open Space Proposed
- New Open Space Potential Site for Open Space Contribution (site over 1/2 block or 0.7 acres)
- Connections to Open Space
- Festival Street
- Webster Street Green
- Existing Park Enhancement
- Future Potential Joint Use
- Planning Area

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Linear Parks

Two linear parks are in the Planning Area: Peralta Park and Lake Merritt Channel Park. Peralta Park is located next to the Kaiser Auditorium and south of Lake Merritt, across 12th Street. Accessibility between Lake Merritt and Peralta Park are being addressed through the Lake Merritt Park Master Plan and improvements to 12th Street. The Park currently has a children's play area and a grass field to the west of the Lake Merritt Channel.

Lake Merritt Channel Park begins south of Peralta Park, from 10th Street to I-880. The Park runs along the Lake Merritt Channel, through Laney College and the Peralta District Administrative Complex. Lake Merritt Channel Park is mostly used for passive recreation and includes numerous art sculptures.

Other Publicly Accessible Open Spaces

Table 3.5-2 identifies the recreation facilities at Laney College and other publicly accessible open spaces, including the BART plazas; courtyards at Laney College; plazas around the Library and Alameda County offices; the courtyard at Pacific Renaissance Plaza; and the gardens in the Oakland Museum of California. These spaces are not recognized as park land, but do provide valuable public space resources in the Planning Area.

Table 3.5-2: Other Publicly Accessible Open Space in the Planning Area

Name	*Description*	*Planning Area Acreage*
Recreation Facilities		
Laney College Playing Fields	Baseball and soccer fields and football stadium, limited public access	12.1
Other Publicly Accessible Open Space		
Alameda County Plaza	Plaza with hardscaping and amenities	0.3
BART Station Plazas	Plazas with hardscaping and amenities	1.1
Laney College Courtyards	Courtyards with hardscaping and amenities	3.3
Oakland Museum of California Gardens	Elevated gardens with limited public access	2.9
Oakland Public Library Plazas	Lawns and plaza spaces along streets	0.6
Pacific Renaissance Plaza	Hardscaped courtyard, privately-owned	0.6
Subtotal		*8.7*
Total		**20.7**

Source: Dyett & Bhatia, 2012.

Park Improvements Already Designated

Lake Merritt and Lake Merritt Channel Improvements

A variety of improvements are planned, under construction, or recently completed along Lake Merritt and the Lake Merritt Channel. These projects were funded by Measure DD, a bond measure passed by Oakland voters in 2002, and build on the Lake Merritt Master Plan and the Lake Merritt Channel Feasibility Study. The various improvements include extension of Lake Merritt Park, the reconstruction of 12th Street and creation of new parkland along Lake Merritt, and improvements to and along Lake Merritt Channel. These are further described below.

First, Lake Merritt Park will be extended around the south side of the lake, adding approximately five acres of highly usable regional parkland to the Planning Area, with pedestrian and bicycle paths connected to the lakefront path and paths along Lake Merritt Channel.

At the same time, the 12th Street Reconstruction Project will transform the existing arterial into a tree-lined boulevard with signalized intersections, crosswalks, and a landscaped median. The redesign will improve access between the Lake, the Kaiser Auditorium, the Eastlake neighborhood, and Laney College.

Third, Lake Merritt Channel improvements involve wetlands restoration, extension and enhancement of the pathway system along the Channel between Lake Merritt and the Estuary, replacement of the 10th Street Bridge culverts with a clear span bridge, and improvements for pedestrian, bicycle, and boat access and aesthetics and safety at the 7th Street Pump Station.

A further extension of Lake Merritt Channel Park between I-880 and the Estuary has also been identified as a future goal. The Estuary Policy Plan, described below, identifies a public open space and pedestrian linkage along Lake Merritt Channel between Estuary Park and Lake Merritt as a key opportunity. As anticipated in the proposed Station Area Plan, new public open space along the Channel would add approximately four acres of new linear park land to the Planning Area.

Oak to Ninth Avenue Project/Brooklyn Basin and Waterfront Open Space

Just beyond the Planning Area, a large-scale development project is proposed for the Estuary waterfront between Oak Street and 9th Avenue, on both sides of Estuary Park south of the Embarcadero. In addition to new housing and commercial development, the project proposes a mix of active and passive parks and open spaces. This includes approximately 20.7 acres of new and permanent public open space (not including existing Estuary Park and Jack London Aquatic Center) that would be designed as a series of interconnected parks and waterfront spaces to provide a variety of recreational opportunities. Potential uses include informal green spaces for passive recreation, playgrounds, picnic areas, and gardens. These improvements would include a continuous public pedestrian trail and Class 1 bicycle path along the entirety of the project's waterfront, linking an existing Bay Trail segment that currently ends at Estuary Park to Brooklyn Basin where the trail currently continues east to the Martin Luther King, Jr., Regional Shoreline and beyond. The trail would also follow both sides of Lake Merritt Channel, crossing east-west over Lake Merritt Channel Bridge (over the Embarcadero), and allow for extension for future City projects aimed at improved connections between Lake Merritt and the estuary. The trail would accommodate pedestrians and bicycles and a variety of users within a maximum 40-foot-wide right-of-way along the waterfront of the project site.

In addition, expansion of Estuary Park onto the site of the adjacent Cash & Carry warehouse is identified as a future Measure DD project. This would add approximately 3.5 acres of new waterfront park land.

Park Needs

Park Land Standards

The Oakland General Plan's standard for local-serving parks is four acres per 1,000 persons. This standard is meant to be applied at both the citywide and community level, and to apply to "all parks which meet the active recreational needs of the community." The General Plan also includes a service goal of providing a neighborhood park of at least three acres for every 5,000 residents.

Currently, there are 34.6 acres of park land in the area within a one-half mile radius of the Lake Merritt BART Station, with 23.6 acres located within the Planning Area. For this analysis, only neighborhood and special use parks are considered to count toward the standard for local-serving park land.

The Planning Area's two special use parks and one neighborhood park together provide 4.1 acres of park land, translating to 0.7 acres per 1,000 residents, falling short of the City's standard (four acres per 1,000). Lincoln Square Park, the one neighborhood park, is 1.4 acres in size, about half of what the Planning Area should have based on the service goal for neighborhood parks. If the two special use parks are also counted, the Planning Area has adequate neighborhood park acreage. However, it lacks a single park meeting the General Plan's size standard for a neighborhood park.

Community Engagement Process

In 2009, as part of the Lake Merritt Station Area Plan's Community Engagement Process, a survey was conducted of approximately 1,500 residents, visitors, business owners and Laney College students. The answers to the survey questions about parks and open space show a strong desire of the public for improved facilities and opportunities for new activities and recreation in the area.

A summary of the results shows that:

- Those who live in the study area, children,[1] and seniors[2] ranked "parks and recreation centers" the number one aspect (out of 18 other criteria) making the area a healthy place to live, work and do business.
- Children and seniors ranked "insufficient parks and recreation centers" number four (out of 16 other criteria) for the aspect that makes the area an unhealthy place to live, work and do business.
- "Access to parks and open space" was ranked number three (of 10 criteria) by visitors and children; and all respondents (residents, business owners, employees, Laney Students and BART patrons) ranked it in the top five of the area's "urgent needs."
- When asked what the most urgent needs were for parks and open space, residents, business owners and visitors ranked "athletic fields/tai chi areas" as the number one need, while employees in the area, and BART patrons said "neighborhood parks (trees, meadows, surfaced creeks)" was the number one urgent need.

[1] Children were defined as those under 17 years old.

[2] Seniors were defined as those between 65 and 74 years old.

REGULATORY SETTING

State of California

Quimby Act

The 1975 Quimby Act (California Government Code section 66477) authorized cities and counties to pass ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements. The Act states that the dedication requirement of parkland can be a minimum of three acres per 1,000 residents or more, up to five acres per 1,000 residents if the existing ratio is greater than the minimum standard. Revenues generated through in lieu fees collected and the Quimby Act cannot be used for the operation and maintenance of park facilities. In 1982, the act was substantially amended. The amendments further defined acceptable uses of or restrictions on Quimby funds, provided acreage/population standards and formulas for determining the exaction, and indicated that the exactions must be closely tied (nexus) to a project's impacts as identified through studies required by the California Environmental Quality Act (CEQA). The City of Oakland has not passed a Quimby Act enabling ordinance.

City of Oakland

General Plan Open Space, Conservation, and Recreation (OSCAR) Element (1996)

The Open Space, Conservation, and Recreation (OSCAR) Element of the General Plan is the primary policy document for parks, conservation, and open space planning in Oakland. Overall goals include providing a citywide open space system accessible to every Oakland resident; an attractive, accessible shoreline and creek system that complements the City's parks and open spaces; and recreational services that promote personal growth, celebrate Oakland's cultural diversity, and serve all communities equitably.

Park Land Standards

The Element features a policy to achieve 10 acres of total parkland per 1,000 residents and four acres of local serving parkland per 1,000 residents. According to the US Census, Oakland had a population of 390,724 in 2010. With a total of 3,367 acres of parkland, the existing total parkland ratio is 8.6 acres per 1,000 residents, as shown in **Table 3.5-3**.

Table 3.5-3: Oakland Park Acreage Goals

Policy or Service	*Goal*	*Existing*[1]
Total Parkland	10 acres/1,000 residents	8.6 acres/1,000 residents[2]
Local Serving Parkland	4 acres/1,000 residents	3.5 acres/1,000 residents[3]

Notes:

1. Based on 2009 City of Oakland Population of 411,736.
2. Calculation based on total parkland of 3,367 acres.
3. Calculation based on total local-serving parkland of 1,379 acres. (Excludes Resource Conservation Areas.)

Source: US Census, 2010; City of Oakland, 2009; City of Oakland General Plan OSCAR Element, 1996; Dyett & Bhatia, 2012.

Local-serving parks include all parks that meet the active recreational needs of the community. With a total of 1,379 acres of locally-serving parkland, the existing locally serving parkland is 3.5 acres per1,000 residents. **Table 3.5-4** shows the park classifications in Oakland along with service goals and existing acreages of each park classification.

Table 3.5-4: Oakland Park Types

Park Type	*Size Range*	*Service Area*	*Service Goal*	*Acreage (2009)*
Region Serving Park	≥ 25 acres	Citywide	None Stated	485.5
Community Park	5-20 acres	1/2-mile radius in flatlands, one mile radius in hills	A community park of at least 7.5 acres in every one of the 10 planning areas	96.5
Neighborhood Park	2-10 acres	1/4- mile radius in the flatlands, 1/2-mile radius in hills	A neighborhood park of at least three acres for every 5,000 residents	139.5
Active Mini-Parks	< 1 acre	1/8-mile radius in flatlands, 1/4-mile radius in hills	None Stated	5.1
Passive Mini-Parks	< 1 acre	None	Provide new subdivisions and redevelopment areas to enhance neighborhood appearance	1.80
Linear Park	Varies	Depends on Park Size	Provide new subdivisions and redevelopment areas to enhance neighborhood appearance	55.4
Special Use Park	Varies	Usually citywide, but depends on activity	None Stated	563.1
Resource Conservation Areas	Whatever is required to protect the resource	Varies	None Stated	1,988.4
Athletic Fields	4-15 acres	Usually one mile	One athletic field complex (capable of supporting soccer, football, and baseball games) for every 20,000 residents	31.7[1]
Total Parkland				**3,367.0**

Note:

1. Acreage does not include school athletic fields.

Source: City of Oakland, 2009; City of Oakland General Plan OSCAR Element, 1996; Dyett & Bhatia, 2009.

The General Plan OSCAR Element includes extensive policies concerning open space and recreation. Policies most relevant to Planning Area issues are summarized below.

Recreation Policies

Policy REC-L1: Protection of Park Open Space. Use a variety of measures, including zoning and park classification, to protect the basic function of parks as public open spaces and to evaluate and review future park projects. Use the park classification system outlined in Table 8 (Oakland Park Classification System) and illustrated in Figure 16 (Oakland Parks by Category) as the basis for determining the kinds of facilities that are appropriate in each park.

Policy REC-I.3: Siting of Buildings in Parks. To the maximum extent practical, accommodate new recreational buildings in City parks by expanding the park onto nearby vacant or underutilized land rather than covering open space within existing park boundaries. Strongly discourage new non-recreational buildings in City parks unless their construction is a matter of public necessity and the use cannot be reasonably accommodated in another location. Exceptions to this policy may be made in cases where there are (a) no feasible alternatives to placing buildings in parks; (b) the buildings are being developed in accordance with an overall Master Plan for the impacted park; and (c) replacement open space will be provided as specified in Policy REC-l.2.

Policy REC-2.5: Park Visibility. Plan and design parks in a way which maximizes their visibility while minimizing conflicts between pedestrians, bicyclists, and automobiles.

Policy REC-2.6: Historic Park Features. Respect historic park features when designing park improvements or programming new park activities.

Policy REC·3.1: Level of Service Standards. Use the level of service of standards in Table 15 (Level of Service Standards for Oakland Parks) as a means of determining where unmet needs exist and prioritizing future capital investments.

Policy REC-3.2: Systematic Allocation of Funds. Follow a systematic process in allocating park and recreation funds. In general, allocate the greatest expenditures to those areas with the greatest unmet needs and place a priority on projects which maximize reductions in deficiency for the amount of money spent. However, maintain the flexibility to consider such factors as site opportunities, the availability of grants or matching funds, and linkages to other kinds of projects.

Policy REC-3.3: Park Location Factors. Consider a range of factors when locating new parks or recreational facilities, including local recreational needs, projected operating and maintenance costs, budgetary constraints, surrounding land uses, citizen wishes, accessibility, the need to protect or enhance a historic resource, and site visibility.

Policy REC-4.3: Renovation and Rehabilitation Priorities. Where cost savings and equivalent benefits would be achieved, renovate and rehabilitate existing facilities before building new facilities. Give rehabilitation priority to projects which would: (a) increase park safety and usefulness; (b) reduce operating and maintenance expenses; and (c) prevent a facility from deteriorating to the point of becoming unusable or expensive to repair. For projects meeting these criteria, give highest priority to projects in areas which are underserved by parks and recreational facilities, and projects which would benefit the greatest number of persons.

Policy REC-5.1: Increased Range of Activities. Promote an increased range of activities within Oakland's parks as a means of introducing new users to the parks and improving safety through numbers.

Policy REC-6.1: Joint Use Agreements. Promote joint use agreements and similar arrangements between the City, the Oakland Unified School District. and other public agencies to maximize the use of school and other non-park recreational facilities during non-school hours.

Policy REC-6.2: Public-Private Partnerships. Encourage "public private partnerships" as a means of providing new recreational facilities on privately owned sites. Promote joint use partnerships with local churches, private recreational service providers, and local non-profits.

Policy REC-7.1: Program Diversity. Provide diverse recreational activities for all ages, with a progression of programs from youth to adulthood. Equitably distribute programs throughout all Oakland neighborhoods.

Policy REC-7.2: Coordination with Other Service Providers. Coordinate with other service providers, including the Oakland Unified School District, to maximize the effectiveness of service delivery and minimize duplication of efforts.

Policy REC-7.3: Multi-Culturalism. Design recreational services which respond to the many cultures, ethnic groups, and language groups represented in Oakland. Design recreational programs to reflect the specific needs of Oakland neighborhoods and the values and priorities of local residents.

Policy REC-7.6: Recognition of Local History. Promote programs, events, and markets at local parks which increase public awareness of local history and provide a sense of continuity with the past.

Policy REC-10.1: General Fund Support. Continue to provide General Fund support for park and recreational services, acknowledging the importance of these services to the quality of life in Oakland.

Policy REC-10.2: Parkland Dedication and Impact Fee. To the extent permitted by law, require recreational needs created by future growth to be offset by resources contributed by that growth. In other words, require mandatory land dedication for large-scale residential development and establish a park impact fee for smaller-scale residential development, including individual new dwelling units. Calculate the dedication or fee requirement based on a standard of four acres of local-serving parkland per 1,000 residents.

Note: this policy has not been implemented.

Policy REC-10.5: Other Local Funding Sources. Promote the use of other local funding sources, including tax increment financing, assessment districts, and general obligation and revenue bonds, to produce the revenue necessary for park improvement and operation.

Each of these OSCAR Element policies is supported by additional actions.

Lake Merritt Master Plan

The Lake Merritt Master Plan was adopted in 2002 to guide future improvements to the park land around Lake Merritt, in the context of a revitalized downtown area with thousands of new residents and a park in need of restoration. The Plan aims to enhance the Park's assets and make it an essential part of the city's fabric. It addresses the Park's ecology, its circulation patterns, its recreational uses, and its history and cultural context and provides direction in each of these areas.

Among the most important recommendations of the Plan is to open the water connection between the Lake and the Channel, and in turn, the Estuary. This would occur in tandem with a redesign of the 12th Street roadway as a boulevard and the creation of approximately five acres of new park space, plus perimeter pathways along the south end of the Lake.

Estuary Policy Plan

The Estuary Policy Plan, adopted in 1999, aims to make Oakland's waterfront, stretching from Adeline Street to 66th Avenue, a citywide resource, and to reconnect the City with the bay. The Estuary Policy Plan, considered an element of the Oakland General Plan, outlines a system of open spaces and shoreline access for recreational use, environmental enhancements, interpretive experiences, visual amenities, and significant gathering places. At the same time, it calls for reinforcing the port and industrial areas necessary to maintain its viability.

Objective SA-2: Punctuate the Estuary shoreline promenade with a series of parks and larger open spaces.

Objective SA-5: Enhance natural areas along the shoreline. There are significant opportunities along the Estuary shoreline and Lake Merritt Channel to enhance remnant tidal marshes and other natural areas.

Some of this is part of the current Measure DD projects, such as a new tidal wetland being created between 10th and 12th Street on the west side of the Channel.

Policy OAK-2.1: Expand Estuary Park. Encourage aquatic sports within the mouth of Lake Merritt Channel.

Policy OAK-2.2: Create a major new park on the east side of the mouth of the Lake Merritt Channel, at the Estuary.

Policy OAK-3: Link the Estuary to Lake Merritt by enhancing the Lake Merritt Channel.

Policy OAK-3.1: Create a system of public open spaces that connects Lake Merritt Channel to the Estuary.

Policy OAK-3.2: Work with public agencies in the area to extend the open space system inland from the Channel.

This applies to the new four-acre park being built as part of the 12th Street reconstruction. This also encourages the creation of public open spaces along the edges of the Channel itself, and describes the need to create a bicycle and pedestrian overpass between Estuary Park and the Channel shoreline to the north.

Among its recommendations, the Estuary Policy Plan calls for new parks at the mouth of Lake Merritt Channel, and a new public open space connection with bikeways and shoreline trails connecting Lake Merritt with the Estuary. This would include about four acres of new park land between East 7th Street and I-880 in the Planning Area. The area between Lake Merritt Channel and the 9th Avenue Terminal is proposed for a mix of lofts, hotel, cultural, and commercial-recreational uses interspersed with public open spaces. The Plan proposes creating a continuous recreational parkway accommodating pedestrians, bicycles, vehicles and transit, while reducing the barrier effect of the freeway to promote access to the waterfront from the rest of the city.

Oakland Planning Code

Chapter 17.11: OS Open Space Regulations

Parks, open space, and land used for recreation are regulated by the Oakland Planning Code, specifically, the Open Space Zoning Regulations in Chapter 17.11. The OS zone is intended to create, preserve, and enhance land for permanent open space to meet the active and passive recreational needs of Oakland residents and to promote park uses which are compatible with surrounding land uses and the city's natural environment. The chapter summarizes permitted activities, permitted facilities, sign limitations, maximum building heights, minimum yards, maximum impervious surfaces, buffering, and other zoning provisions. The Planning Code generally limits the Open Space zone to uses consistent with parks and recreation. Some activities require a permit process, with review by the Parks and Recreation Advisory Commission (PRAC).

Other publicly-accessible open spaces are integrated with public or private development, and are zoned accordingly. In the Planning Area, playing fields, plazas, and other publicly-accessible open spaces are within the Civic Center zone, the Central Business District Mixed Commercial zone, and the Central Business District Pedestrian Retail Commercial zone. Each of these zones has distinct use and building regulations.

Chapter 17.126: Usable Open Space Standards

New residential development is required to provide usable open space in all zoning districts in the Planning Area that allow housing. In general, this open space is intended for use only by residents of the site. However, zoning recently adopted for the Central Business District (CBD) covers most of the Planning Area (all but the Laney/Peralta and Eastlake Gateway areas). Under the CBD zoning, residential development may provide public ground-floor plazas to satisfy all or part of the usable open space requirement (75 square feet per regular unit or 38 square feet per rooming unit.) The inclusion of plazas as an optional (not required) form of usable open space for new residential development may result in some new publicly accessible open space in the Planning Area.

Findings of the Housing Element EIR

The Housing Element Final EIR determined that the addition of residential development could increase the use of existing neighborhood and regional parks, as well as other recreational facilities, resulting in a potentially significant impact. However, compliance with policies contained in the General Plan OSCAR Element and Municipal Code Titles 16 and 17 would ensure that future development under the Housing Element would comply with federal and State laws in regard to recreational facilities. Compliance with the goals and policies of the General Plan and the Municipal Code, the mitigation measures adopted for the LUTE EIR and the City's SCAs would ensure that future development under the Housing Element would provide adequate onsite open space areas for residents, while minimizing the environmental impacts thereof.

Impact Analysis

THRESHOLDS OF SIGNIFICANCE

The proposed Plan would have a significant impact on the environment if it would:

1. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or
2. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

METHODOLOGY AND ASSUMPTIONS

This analysis considered existing and proposed parks, open space, and public facilities within the Planning Area; existing General Plan, Estuary Plan, and Lake Merritt Master Plan policies, goals, and applicable regulations; and parks and related policies proposed by the Station Area Plan. To evaluate the Plan's potential impacts on park use, the EIR compares existing park acreage and population with future park acreage and population, and considers the potential implications of related issue of park accessibility.

SUMMARY OF IMPACTS

The proposed Station Area Plan is projected to accommodate population growth of 9,870 and 4,100 additional jobs by 2035. The substantial increase in population and employment in the Planning Area will put pressure on existing park land to accommodate increased use.

Impact PR-1 – Substantial Physical Deterioration of Parks or Recreational Facilities

The Plan will coincide with or proposes new public park land in the Planning Area, but this new park land by itself does not offset the anticipated population growth. However, the Station Area Plan includes detailed policies for access improvements that will make the regional parks, both existing and new, more accessible to the community. Planning Area residents will not only have access to new park land, but to the much larger system of regional parks and trails beyond. The Plan also contains numerous policies that seek to make the most of public open space opportunities in a highly urbanized environment. The potential for the Plan to increase the use of existing neighborhood and regional parks or other recreation facilities such that substantial physical deterioration of the facility would occur or be accelerated will be reduced to less than significant by the creation of new park land and improved access to the regional parks system.

Impact PR-2 – Construction or Expansion of Recreational Facilities

New park land created under the Plan will take place on already-developed land and will not have adverse effects on the environment.

Cumulative Impact PR-3 – Increased Demand

Population growth in the Planning Area will come alongside considerable development all over Oakland, and particularly in the adjacent Downtown, Jack London Square, and Estuary areas. Without more local-serving park land and other recreational enhancements, demand for recreational facilities in the area will increase. The City of Oakland General Plan acknowledges that meeting the local-serving park land standard may not be possible in all areas. The General Plan contains policies to guide recreational investment priorities and to strive to meet standards. Together with planned and proposed park land and improvements under the Station Area Plan, the potential cumulative impact of Planning Area development together with recent, current and foreseeable development in the vicinity, is less than significant.

IMPACTS

Impact PR-1

New development under the proposed Station Area Plan would not increase the use of existing neighborhood or regional parks or other recreation facilities such that substantial physical deterioration would occur or be accelerated. ***(Less than Significant)***

The Lake Merritt Station Area Plan would result in development of an estimated 4,900 net new housing units, translating to 9,870 new residents. This would substantially increase the Planning Area population, from 6,090 today to 15,960 by 2035. Development under the Plan would also add an estimated 4,100 jobs, raising the number of Planning Area workers from 17,800 to 21,900. The Planning Area's locally-serving parks are heavily used today, particularly Lincoln Square Park, and there is a recognized need for open space, facility, and access improvements at all three parks. Meanwhile, the regional park land along Lake Merritt and Lake Merritt Channel currently has limited use for Planning Area residents because access to these parks is constrained by wide roadways and institutional uses. Considering all these facts, the large increase in residential population, in particular, has the potential to increase the use of existing parks or other recreational facilities that could accelerate their deterioration.

The Station Area Plan will coincide with the completion of approximately three acres of new park land in Lake Merritt Park and a 1.6-acre expansion of Peralta Park along Lake Merritt Channel. These projects are currently underway. The Plan also identifies approximately four acres of future regional open space along Lake Merritt Channel south of I-880. This future park land is analyzed in this EIR as part of the proposed Plan, but it does not have a funding source and cannot be considered a mitigating measure.

In addition, the Station Area Plan supports requiring new development on large sites (half a block or larger) to set aside 10 percent of site area for public open space, or paying an in-lieu fee that could help to fund enhancements to existing neighborhood parks. However, these requirements would need to be supported by a nexus study outside the scope of the Plan. Therefore, this additional potential public open space is not assumed for this analysis or considered available as a mitigating measure.

Altogether, at least 8.6 acres of new park land are planned or proposed, as summarized in **Table 3.5-5**.

Table 3.5-5: Planned and Proposed Park Land

Name	*Park Type*	*Planning Area Acreage*
Lake Merritt Park expansion	Region-Serving Park	3.1
Peralta Park expansion	Linear Park	1.6
Lake Merritt Channel Park expansion	Linear Park	3.9
Total[1]		***8.6***

Notes:

1. An additional 2.3 acres could be developed as required open space contribution with development. This would require additional nexus study and is not assumed in this Draft EIR.

Source: Dyett & Bhatia, 2013.

The large increase in population means that even with the new park land, the ratio of overall park acreage to population will decline, from 3.9 to 2.0 acres per 1,000 residents, not counting potential open space contribution with development (see **Table 3.5-6**). The locally-serving parkland ratio will decline further since no new neighborhood parks are planned. Still, the creation of new park land in a dense part of the city is an important factor.

Table 3.5-6: Summary of Park Acreage and Parks Ratio

Type	*Existing*	*Proposed or Projected*	*Station Area Plan Buildout (Reasonably Foreseeable Maximum Development)*
Total Park Acreage in Planning Area	23.6	8.6	32.2
Local-Serving Park Acreage in Planning Area[1]	4.1	--	4.1
Population in Planning Area	6,090	9,870	15,960
Overall Park Ratio (Acres per 1,000 Residents)[2] including Potential Open Space Contribution	**3.9**	**--**	**2.0**
Local-Serving Park Ratio (Acres per 1,000 Residents)	0.7	--	0.3

Notes:

1. Local-serving park acreage includes" all parks which meet the active recreational needs of the community," based on the Oakland General Plan. For this analysis, all park land in the Planning Area except Resource Conservation Areas along Lake Merritt Channel are included. See text for further discussion.
2. Does not include potential open space contribution with future development.

Source: Dyett & Bhatia, 2013.

Equally important, existing and new regional parkland in the area can be expected to become more accessible to the neighborhood. The 12th Street reconstruction project will have the effect of making the entirety of Lake Merritt Park more accessible from the Planning Area. What is today a limited-access highway will become a boulevard with signalized crossings. Residents will have access not only to new park land within the Planning Area but also to the trails and amenities all around Lake Merritt. The Station Area Plan also comes with access improvements to the park land along Lake Merritt Channel as part of existing projects funded partly by Measure DD. Pathways along the Channel will be improved, including enhanced pedestrian bridges below 10th Street and a new traffic signal and crosswalk across 7th Street that would be part of Phase I improvements. The Estuary Policy Plan envisions new crossings between Lake Merritt Channel Park and Estuary Park, which would link the Lake Merritt and waterfront park systems.

Access improvements identified by the Station Area Plan would augment these projects, connecting the Planning Area itself to the regional park system. The Plan's streetscape and circulation program includes numerous Phase I improvements that would have the effect of improving access from the neighborhood to regional park land.

The proposed Station Area Plan also calls for improving existing neighborhood parks and recreation facilities. Specifically, the Plan emphasizes needed improvements to Madison Square Park, which could include a hardscaped plaza for use as Tai Chi space, sports space, and festival plaza space; new exercise equipment for adults and play structures for children; additional amenities such as shade structures; and redesign emphasizing a more seamless connection between the park and adjacent streets to improve usability and safety.

Proposed streetscape improvements also focus on providing better access to existing neighborhood parks. Specifically, key intersection improvements are proposed for two intersections adjacent to both Madison

Square Park and Chinese Garden (Harrison Square) Park. These improvements would facilitate safe and comfortable park use. All of these proposed access improvements would come as part of Phase I. However, funding for these projects is not certain and they cannot be treated as mitigation.

Policies in the Oakland General Plan and the Estuary Policy Plan seek to provide an expanded and diversified park system for the entire city. In particular, Policy REC-3.1 calls for the City to follow its Level of Service standards as a means of prioritizing future capital investments, while Policies REC-10.2 (Parkland Dedication and Impact Fee) and REC-10.5 (Other Local Funding Sources) identify funding strategies. The Estuary Policy Plan calls for the City to complete park links along Lake Merritt Channel. Meanwhile the City's usable open space standards require that new housing development provide usable open space for residents. With implementation of these existing policies and regulations, this impact is less than significant.

Mitigation Measures

None required.

Impact PR-2

New development under the proposed Station Area Plan would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. ***(Less than Significant)***

Build-out of the Station Area Plan is projected to increase population in the Planning Area by 9,870, and add 4,100 jobs over the next 20 years. These new residents and workers have the potential to either place a strain on existing recreation facilities (as discussed above) or require new facilities.

Providing new open space in developed sections of cities is a challenge due to land constraints, land costs, and funding limitations. The City of Oakland's Open Space, Conservation, and Recreation (OSCAR) Element establishes goals for park land and facilities, and policies to implement these goals over time. The OSCAR Element sets a goal of four acres of locally-serving park land per 1,000 residents, both citywide and at a community level. The Planning Area falls short of this standard both today and at reasonably foreseeable maximum development—and the area is not identified in the OSCAR Element as one of Oakland's more park-deficient areas. The Element acknowledges that attaining this goal would require unrealistic land acquisition, but promotes efforts to make progress toward the goal by expanding existing parks, improving waterway and shoreline access, targeted acquisition of vacant parcels, and incorporation of new parks in major development projects.

The City of Oakland is carrying out this vision locally with the planned expansion of Lake Merritt Park and Peralta Park, improvements to park land along Lake Merritt Channel, and access improvements to the Estuary waterfront, as described in the Estuary Policy Plan. These future parks are summarized in **Table 3.5-5**. The proposed Station Area Plan augments these efforts with access improvements described previously. Open space and access improvements would involve redevelopment of already-urbanized land, and would not have adverse physical impacts on the environment.

Mitigation Measures

None required.

Cumulative Impact PR-3

New development under the proposed Station Area Plan in combination with other past, present, or reasonably foreseeable maximum development in and around the Planning Area would not result in a significantly increased demand for recreational facilities. ***(Less than Significant)***

The General Plan establishes park land standards, with the goal of providing four acres of local-serving parking per 1,000 residents. This goal is meant to be applied at a citywide and at a community level. Currently, Oakland provides 3.5 acres of local-serving park land per 1,000 residents citywide, and only 1.65 acres per 1,000 in Oakland's Central Planning Area.[3] Within the Lake Merritt Station Area Planning Area, the current 4.1 acres of local-serving park land translates to just 0.7 acres per current resident.

The proposed Station Area Plan would be accompanied by new regional and linear park land along Lake Merritt and Lake Merritt Channel. These are substantial improvements to public open space in a built-out urban environment. The proposed Plan would also bring about better access to regional park land along Lake Merritt through Phase I circulation and streetscape improvements.

Population growth in the Planning Area will come alongside considerable development all over Oakland, and particularly in the adjacent Downtown, Jack London Square, and Estuary areas. In Appendix B, **Table B-1** lists all the currently active major development projects underway in Oakland while **Table B-2** quantifies those projects in the immediate vicinity (within five blocks) of the Planning Area. The Station Area Plan would add considerable new regional and linear park land. However, in the absence of new local-serving park land, the local parks ratio will further decline, and demand for park land and other recreational facilities in the area will increase.

As the General Plan notes, it is not likely that the City will be able to achieve its local-serving park land standard in its highly-urbanized Central Planning Area, but it is committed to strive to provide park land to the greatest extent feasible, as part of new development and by other means. Adherence to the General Plan's recreation policies listed in the Regulatory Setting section will be essential. With continued investment in recreation facilities—as is being done with the Lake Merritt Station Area Plan—the impact of the development facilitated by the proposed Plan, in combination with other past, present, and reasonably foreseeable maximum development, would not be cumulatively significant.

Mitigation Measures

None required.

[3] LSA Associates, *Proposed Amendments to the Central District Urban Renewal Plan Draft EIR,* 2011.

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