

# **2016 Telegraph Avenue Project CEQA ANALYSIS**

**Final**

**City of Oakland  
Bureau of Planning  
250 Frank H. Ogawa Plaza, Suite 2114  
Oakland, CA 94612**

June 2017

**URBAN  
PLANNING  
PARTNERS  
INC.**



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- A. Standard Conditions of Approval and Mitigation Monitoring and Reporting Program
- B. Criteria for Use of Addendum, per CEQA Guidelines Sections 15162, 15164, and 15168
- C. Project Consistency with Community Plan or Zoning, per CEQA Guidelines Section 15183
- D. Infill Performance Standards, per CEQA Guidelines Section 15183.3
- E. Shadow Study
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## GENERAL PROJECT INFORMATION

1. **Project Title:** 2016 Telegraph Avenue
2. **Lead Agency Name and Address:**  
City of Oakland  
Bureau of Planning  
250 Frank H. Ogawa Plaza, Suite 2114  
Oakland, CA 94612
3. **Contact Person and Phone Number:**  
Pete Vollmann, Planner IV  
City of Oakland, Bureau of Planning  
250 Frank H. Ogawa Plaza, Suite 2114  
Oakland, CA 94612  
(510) 238-6167  
pvollmann@oaklandnet.com
4. **Project Location:**  
2016 Telegraph Avenue and 490 Thomas L. Berkley Way  
(two parcels located between 21<sup>st</sup> Street and Thomas L. Berkley Way [20<sup>th</sup> Street])  
Assessor's Parcel Numbers: 008-0649-010 and 008-0649-09
5. **Project Sponsor's Name and Address:**  
W/L Broadway Telegraph Owner VII, LLC  
Drew Haydel  
644 Menlo Avenue, Suite 204  
Menlo Park, CA 94025
6. **Existing General Plan Designations:**  
Central Business District
7. **Existing Zoning:**  
Central Business District Pedestrian Retail
8. **Requested Permits:**  
See Project Approvals in the Project Description, below.





## I. EXECUTIVE SUMMARY

The 2016 Telegraph Avenue Project applicant is proposing to redevelop two parcels within Block 8 of the Uptown Mixed Use Project area (Uptown area). The 2016 Telegraph Avenue Project (Proposed Project) would include construction of an 18-story mixed-use residential and retail building, including a parking garage on the northeast corner of Telegraph Avenue and Thomas L. Berkley Way (20<sup>th</sup> Street) on two parcels comprising an area of approximately 20,814 square feet (0.47-acre). The proposed building would have a maximum height of 200 feet and would be built above one level of subterranean parking.

The Proposed Project would include approximately 4,622 square feet of commercial space along Telegraph Avenue and Thomas L. Berkley Way (20<sup>th</sup> Street), and up to 230 residential units (137,900 square feet). Approximately 78 vehicle parking spaces are also proposed with a subterranean parking structure (10,978 square feet).

On February 18, 2004, the City certified the Final Uptown Mixed Use Project Environmental Impact Report (2004 Uptown EIR),<sup>1</sup> pursuant to the California Environmental Quality Act (CEQA). The Uptown Mixed-Use Project (Uptown Project) that was evaluated in that EIR included development across nine blocks (as shown in Figure 1) on 66 individual parcels, containing approximately 1,300 residential units, 1,050 student beds/faculty units, and approximately 43,000 square feet of commercial space. In addition to the 2004 Uptown EIR, the City of Oakland approved subsequent CEQA documents related to the Uptown Project, including three addenda to the Final EIR<sup>2,3,4</sup> and a Supplemental EIR.<sup>5</sup> Collectively these environmental review documents are referred to as the Uptown EIRs.

Various components of the Uptown Project have been constructed since it was approved in 2004 (Figure 2). Blocks 1, 2, 3, and 6 have all been developed with predominantly residential uses, including market rate and affordable housing. A 25,000-square-foot community park is on the western third of Block 4, with some site infrastructure installation currently underway on the eastern two-thirds. The eastern portion of Block 4 is planned for a residential tower and hotel. One parcel in the western portion of Block 7 (528 Thomas L. Berkley Way) is under development with construction of a 20-unit residential building. This development, in addition to the 2015 Telegraph Avenue project would result in approximately 300 fewer dwelling units than discussed in the 2012.

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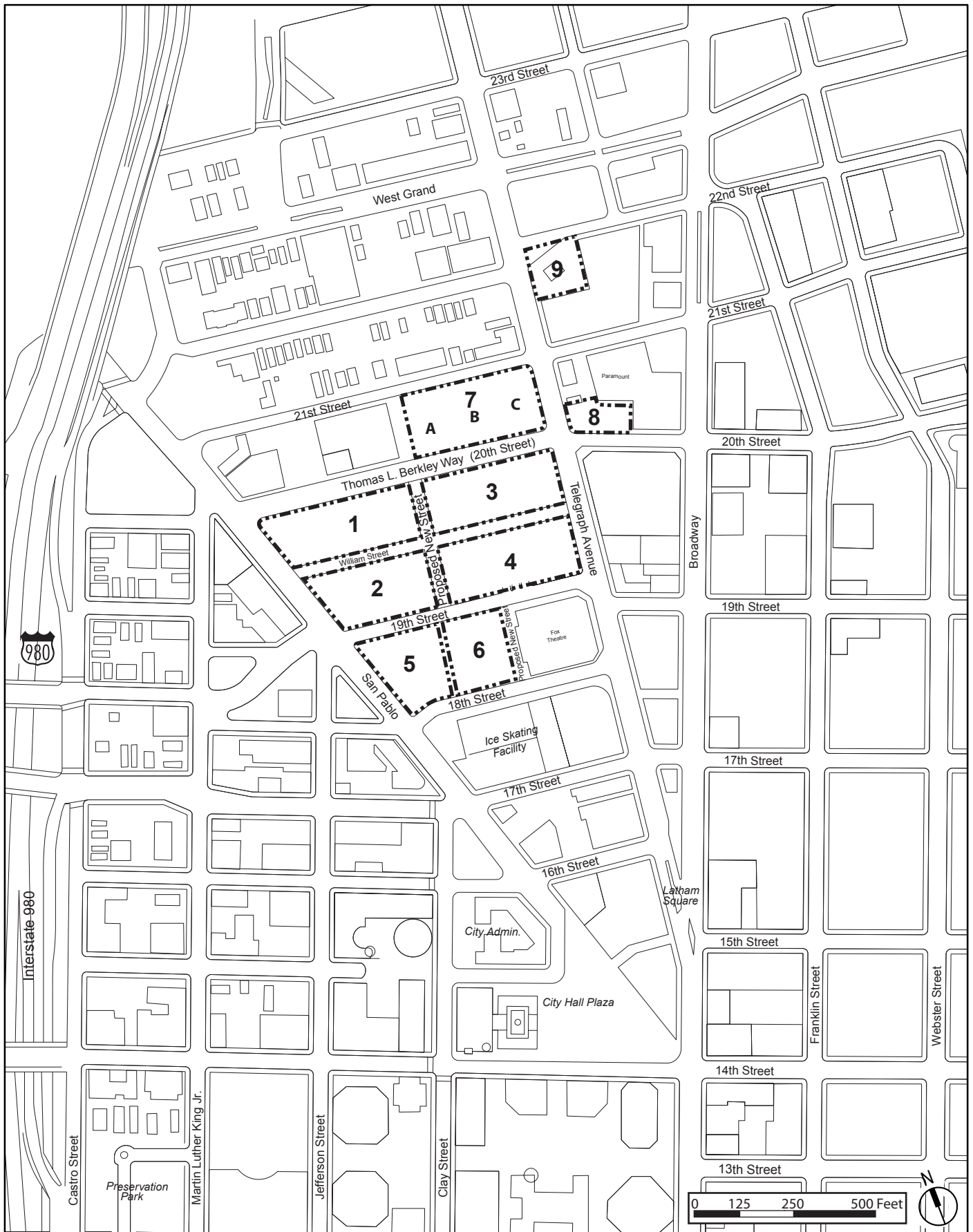
<sup>1</sup>City of Oakland, 2004. Uptown Mixed Use Project, Final EIR. Prepared by LSA Associates, February 18.

<sup>2</sup>City of Oakland, 2006. Attachment F: Addendum for the Final Environment Impact Report on the Uptown Mixed Use Project. Prepared by LSA Associates, March.

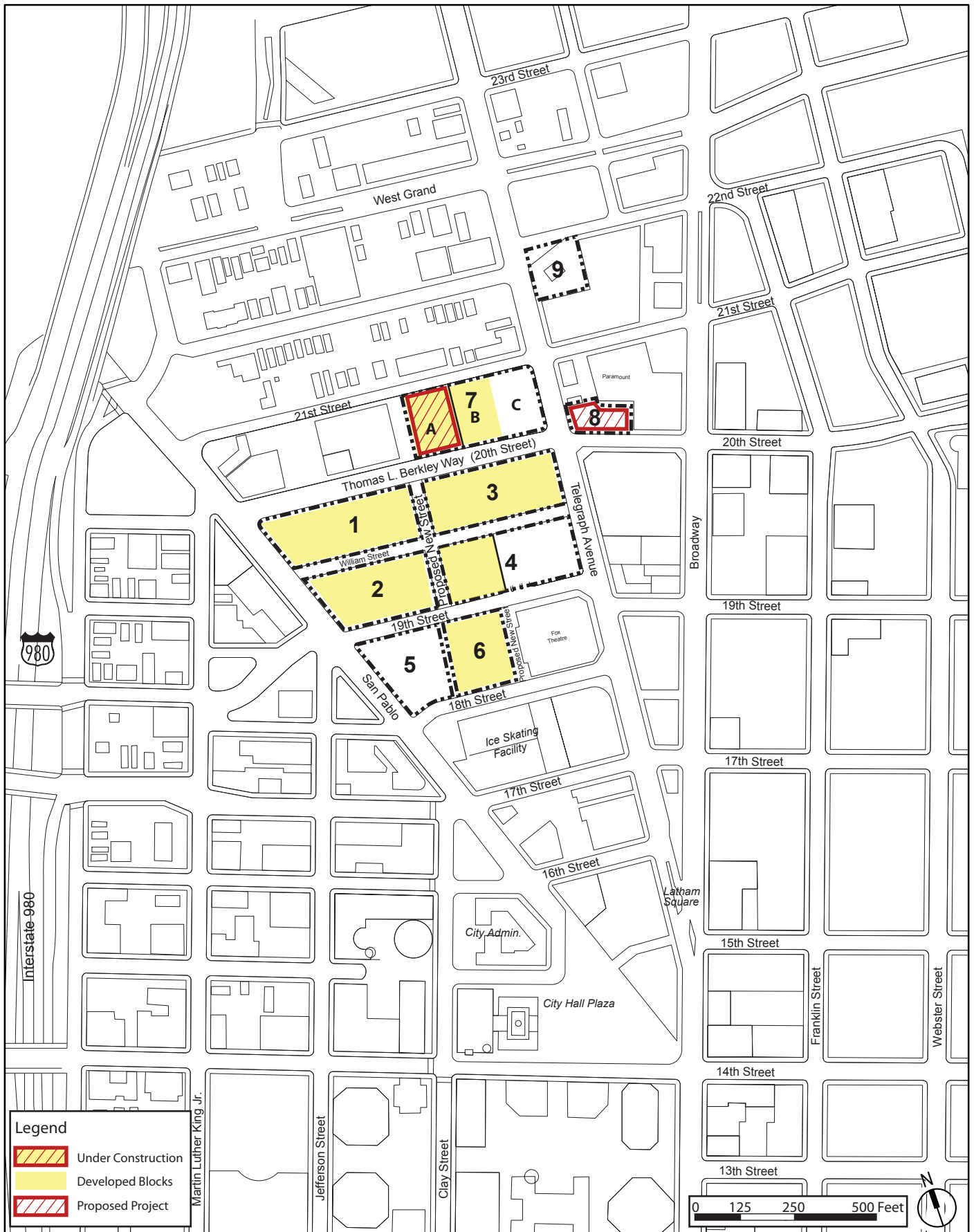
<sup>3</sup>City of Oakland, 2007a. Environmental Review of Changes to Uptown Mixed Use Project. Prepared by LSA Associates, February 8.

<sup>4</sup>City of Oakland, 2007b. Environmental Review of Changes to Uptown Mixed Use Project. Prepared by LSA Associates, November 12.

<sup>5</sup>City of Oakland, 2012. 1800 San Pablo Avenue Project, Supplemental EIR, July.



Source: LSA 2007, Urban Planning Partners 2016



Source: LSA 2007, Urban Planning Partners 2016

Figure 2  
Uptown Project Proposed  
and Developed Blocks

Uptown Project Supplemental EIR. To date, neither site work or construction has been initiated on Blocks 5, 8, and 9. Table 1 shows the level and type of development associated with each parcel as evaluated in the Uptown EIRs, and Table 2 presents more specific details about each block’s development.

**TABLE 1 SUMMARY OF ORIGINAL (2004) PROPOSED UPTOWN MIXED USE DEVELOPMENT**

Block	Stories	Parking Spaces	Units (Residential)	Types of Units	Square Footage (Commercial)
1	5	190	190	Apartments	-
2	5	190	190	Apartments	-
3	12	270	250	Apartments	7,500
4	5	294	225	Apartments	14,500
5	19	270	270	Condominiums	-
6	5	145	145	Apartments	-
7	19-22	550	1000/50	Student Beds/ Faculty Units	11,000
8	-	-	-	-	-
9	1	50	-	-	10,000
<b>Total</b>	-	<b>1,959</b>	<b>1,000</b>	<b>Apartments</b>	<b>43,000</b>
			<b>270</b>	<b>Condominiums</b>	
			<b>1,050</b>	<b>Student Beds/ Faculty Units</b>	

Note: Block 8 was identified as an alternative site for the relocation of the former Sears Auto Center previously located on Block 4.

Source: LSA Associates Inc., 2003. Uptown Mixed Use Project EIR, September.

The Proposed Project would be developed within the western portion of Block 8 (which currently contains a surface parking lot), and would include an 18-story building with 230 residential units, 78 parking spaces, and 4,622 square feet of retail space.

The same applicant is also proposing the 2015 Telegraph Avenue Project, which would develop the western portion of Block 7 with a 14-story building containing 114 residential units, 40 parking spaces, and 1,685 square feet of retail space. While the site of the 2015 Telegraph Avenue Project does not include the entirety of Block 7, the development calls for approximately 320 fewer dwelling units, 510 fewer parking spaces, and 9,315 more commercial square footage than evaluated for Block 7 in the Uptown EIRs. These two projects are independent of each other, and the potential environmental impacts associated with the 2015 Telegraph Avenue Project are evaluated independent of this Proposed Project (2016 Telegraph) in a separate CEQA analysis document.

**TABLE 2 UPTOWN PROJECT AREA DEVELOPMENT DETAILS**

	2004 Uptown Project	2012 Supplemental EIR	Current 2016 (Built To-Date & Proposed)	Net Change <sup>d</sup>
<b>Block 1</b>				
Residential	190	256	256	0
Commercial	0	0	0	0
Parking	190	224	224	0
<b>Block 2</b>				
Residential	190	193	193	0
Commercial	0	0	0	0
Parking	190	137	137	0
<b>Block 3 – Uptown Apartments</b>				
Residential	250	216	216	0
Commercial	7,500	9,000	9,000	0
Parking	270	171	171	0
<b>Block 4 – 1911 Telegraph</b>				
Residential	225	380	380	0
Commercial	14,500	19,934	19,934	0
Community Space	14,500	25,000	25,000	0
Parking	294	296	296	0
<b>Block 5 – 1800 San Pablo Avenue</b>				
Residential	270	0	0	0
Commercial	0	120,000	120,000	0
Parking	270	309	309	0
<b>Block 6 – Fox Courts</b>				
Residential	145	80	80	0
Commercial	0	0	0	0
Parking	145	72	72	0
<b>Block 7</b>				
<i>2015 Telegraph (Proposed Project)</i>				
Residential <sup>a</sup>	434	434	114	-320
Commercial	11,000	11,000	1,685	-9,315

**TABLE 2 UPTOWN PROJECT AREA DEVELOPMENT DETAILS**

	2004 Uptown Project	2012 Supplemental EIR	Current 2016 (Built To-Date & Proposed)	Net Change <sup>d</sup>
Parking	550	550	40	-510
<i>Great Western Power Company</i>				
Residential	434	434	0	0
Commercial	11,000	11,000	13,000	+2,000
Parking	550	550	0	-510
<i>528 Thomas L Berkley Way</i>				
Residential	434	434	20	-414
Commercial	11,000	11,000	1,000	-10,000
Parking	550	550	20	-530
<b>Total for Block 7<sup>b</sup></b>				
Residential	434	434	134	-300
Commercial	11,000	11,000	15,685	+4,685
Parking	550	550	60	-490
<b>Block 8<sup>c</sup> – 2016 Telegraph (Proposed Project Site)</b>				
Residential	-	0	230	+230
Commercial	-	10,000	4,622	-5,378
Parking	-	50	78	+28
<b>Totals</b>				
Residential	1,705	1,560	1,492	-67
Commercial	43,000	169,934	170,684	+750
Commercial	43,000	169,934	169,241	-693
Parking	1,909	1,809	1,349	-460

Notes: Residential is represented in dwelling units. Commercial, community space, and parking are represented as square feet. Text in *italics* refers to Proposed Projects (not yet approved); text in **bold** refers to projects completed or under construction.

<sup>a</sup> The Uptown EIRs analyzed Block 7 as a student and faculty housing tower with 50 faculty dwelling units and 1,000 student beds. For the sake of this comparative analysis, 1,000 student beds are converted to 385 dwelling units using the Association of Bay Area Government's (ABAG) 2015 average of 2.6 occupants per dwelling units.

<sup>b</sup> Block 7 was analyzed in the Uptown EIRs as a student and faculty housing tower with 1,000 student beds and 550 faculty units. For the purpose of this analysis, 1,000 student beds is converted to 362 units based on an average occupancy per unit of 2.75

<sup>c</sup> In the Uptown EIRs, Block 8 was identified as an alternative relocation site of the former Sears Auto Station previously located on Block 4. Block 9 was evaluated in the 2004 Uptown EIR as a preferred relocation site and was removed from the analysis in Addendum #2 in 2007.

<sup>d</sup> Represents difference between the project considered in 2012 Supplemental EIR and current Proposed Project. Sources: Prior Uptown EIRs. Urban Planning Partners, 2016.

The City is currently in initial negotiations with a developer for the development of Block 4 but a specific proposal has not yet been identified. Additional CEQA analysis for Block 4 project will be undertaken separately, as appropriate.

The Uptown EIRs analyzed the environmental impacts of implementation of the original Uptown Project. The analysis in the Uptown EIRs directly applies to the Proposed Project site, providing the basis for use of an addendum. Both separately and independently, qualified planning-level documents—specifically program-level EIRs—can also be used as a basis to provide additional CEQA clearance of the Proposed Project under specific CEQA provisions. These program-level EIRs include the City’s 1998 General Plan Land Use and Transportation Element (LUTE) EIR,<sup>6</sup> General Plan Housing Element Update EIR<sup>7</sup> and its 2014 Addendum,<sup>8</sup> and the 2011 Central District Urban Renewal Plan EIR.<sup>9</sup>

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<sup>6</sup> City of Oakland, 1998. Land Use and Transportation Element, Final EIR, February.

<sup>7</sup> City of Oakland, 2010. 2007–2015 Housing Element Update, Final EIR.

<sup>8</sup> City of Oakland, 2014. 2015–2023 Housing Element Addendum to the 2010 Housing Element EIR.

<sup>9</sup> Oakland Redevelopment Agency, 2012. Central District Urban Renewal Plan. Adopted June 12, 1969, as amended through April 3, 2012.





## II. BACKGROUND

### Original 2004 Uptown EIR

The City certified the Uptown EIR in 2004 (2004 Uptown EIR). The project evaluated in the 2004 Uptown EIR included:

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

The 2004 Uptown EIR found no significant impacts related to land use; population, employment, and housing; utilities and infrastructure; and shade and shadow. Further, impacts to the following environmental topics were found to be reduced to a less-than-significant level with implementation of the recommended mitigation measures: hydrology and water quality, noise, hazards and hazardous materials, aesthetic resources, and wind. Significant and unavoidable effects related to transportation, air quality, and historic architectural resources were found, as described below.

Under the 2010 No Project and Plus Project scenarios, as well as the Year 2025 No Project and Year 2025 Plus Project conditions, the Frontage Road/West Grand Avenue intersection was projected to operate at level of service (LOS) F in the PM peak hour in the 2010 scenarios (and LOS F in the AM and PM peak hour 2025 scenarios), and implementation of the identified mitigation measure<sup>10</sup> found to be economically infeasible resulting in a significant and unavoidable impact

With regard to air quality, the 2004 Uptown EIR concluded that the development would result in increased regional emissions of criteria air pollutants that exceed the Bay Area Air Quality Management District (BAAQMD) thresholds. However, the City recognized that, as an infill mixed-used development, the Uptown Project supports many smart growth principles, including transit, service, bicycle, and pedestrian measures but concluded that such elements would not reduce the potential impact to a less-than-significant level.

With regard to historic architectural resources, the 2004 Uptown EIR determined that full or partial demolition of the Great Western Power Company building would have a significant unavoidable impact. Mitigation measures requiring documentation of the resource are required and would minimize the impact, but not to a less-than-significant

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<sup>10</sup> Mitigation Measure TRANS-3 suggests widening the intersection to add a second exclusive left turn lane in the eastbound direction and an exclusive right turn lane in the westbound direction. The implementation of this mitigation measure was found to be economically infeasible as it would require additional support columns and the acquisition of a Caltrans right-of-way.

level. Due to the Uptown Project’s potential for significant unavoidable impacts, a Statement of Overriding Considerations was adopted as part of the City’s approvals.

The 2004 Uptown EIR is hereby incorporated by reference. It can be obtained from the City of Oakland Bureau of Planning at 250 Frank H. Ogawa Plaza, Suite 2114, Oakland, California 94612, and viewed online at: <http://www2.oaklandnet.com>.

### **Previous Addenda and Supplemental EIR**

Modifications to the project evaluated in the 2004 Uptown EIR were considered in several documents: (1) Addendum #1 to the Final EIR (for Block 3 and 4), completed in March 2006; (2) Addendum #2 to the Final EIR (for Block 4), dated February 8, 2007; (3) Addendum #3 to the Final EIR (for Block 4), dated November 12, 2007; and (4) a supplemental EIR (for 1800 San Pablo), dated October 2012. As described below, each of these addendums determined that no further review was required in terms of a subsequent or supplemental EIR, pursuant to CEQA Guidelines Section 15162 (Subsequent EIRs) and Section 15164 (Supplements and Addenda to an EIR or Negative Declaration). A Supplemental EIR was prepared in 2012 as a project proposed on Block 5 was determined to represent a change to the development proposed for that block as anticipated in the 2004 Uptown EIR, per CEQA Guidelines Section 15162, as such change would require changes to the 2004 Uptown Project due to potential new significant environmental impacts related to roadway intersections. The addenda together with the 2004 Uptown EIR and the 2012 Supplemental EIR are collectively referred to as the Uptown EIRs. Development on Blocks 1, 2, 3, and 6 are now fully constructed and operational; Block 4 is partially completed and partially completed; Block 7 is partially under construction; and Blocks 5, 8, and 9 have not been redeveloped.

The 2006 Addendum #1 evaluated project refinements that included swapping the existing development proposals for Blocks 3 and 4; i.e., the development originally planned for Block 3 is shifted to Block 4, and the development originally planned for Block 4 is shifted to Block 3. Up to 20,000 square feet of retail space, 255 residential units, and 343 parking spaces would be provided within one 23-story high-rise tower in the eastern two-thirds of Block 4 and a 25,000-square-foot community park in the western third of that block. Block 3 would contain a five-story building with 9,000 square feet of commercial space, 217 residential units, 133 parking spaces, and no community park as previously proposed. This change would have the same number of residential units and student/faculty units, an increase of 11,000 square feet in commercial space, and 146 fewer parking spaces. Small changes were also proposed to Blocks 1, 2, and 6. As described in Addendum #1, the proposed changes were determined to not result in additional environmental impacts beyond those identified in the 2004 Uptown EIR.

The 2007 Addendum #2 evaluated project refinements to Block 4, with minor changes to Blocks 1, 3, and 6 that would reduce the overall development density on the eastern side of Block 4 and the Uptown development. The height of the building on the east side of

Block 4 was proposed to be 15 stories shorter than proposed in Addendum #1 and would involve a decrease of 55 residential units as well as 183 fewer parking spaces. The 25,000-square-foot community park on the western third of the block would remain. Addendum #2 concluded these changes would not result in new or more significant impacts nor require new or significantly altered mitigation measures beyond those already identified in the 2004 Uptown EIR and Addendum #1.

The 2007 Addendum #3 evaluated project refinements for Block 4, including a 14-story building with 380 residential units, 19,934 square feet of retail space, and 296 parking space in the eastern two-thirds of the site, with the 25,000-square-foot community park on the western third of the site. These changes would result in more development in the Uptown Project site over the project originally analyzed in the 2004 Uptown EIR; however, the total number of parking spaces would be reduced by 189 spaces. Addendum #3 concluded these changes would not result in new or more significant impacts nor require new or significantly altered mitigation measures beyond those addressed in the 2004 Uptown EIR, and Addendums #1 and #2.

The 2012 Supplemental EIR evaluated project refinements for Block 5 to include development of a three-story, above-grade building containing 120,000 square feet of commercial space and three sub-grade levels. The 2004 Uptown EIR assumed construction of a 19-story building containing 270 condominiums and 270 parking spaces on the Block 5 site. The scope of the 2012 Supplemental EIR was limited to transportation. The supplemental analysis found that the shift from residential to commercial would result in a number of new significant intersection impacts under both the Uptown Project and cumulative conditions beyond the findings of the 2004 Uptown EIR and associated addenda.

### **Applicable Previous CEQA Documents and Program EIRs**

The analysis in the 2004 Uptown EIR, its three addenda, and the 2012 Supplemental EIR (collectively referred to as the Uptown EIRs) apply directly to the Proposed Project, providing the basis for use of an addendum. Additionally, a number of Program EIRs collectively referred to as “Program EIRs” are described below. The Uptown EIRs together with the Program EIRs are collectively referred to as “Previous CEQA Documents.” The Program EIRs are as follows:

- 1998 General Plan Land Use and Transportation Element (LUTE) EIR<sup>11</sup>
- 2010 General Plan Housing Element Update EIR<sup>12</sup> plus a 2014 Addendum<sup>13</sup>
- 2011 Central District Urban Renewal Plan EIR<sup>14</sup>

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<sup>11</sup> City of Oakland, 1998. 1998 Land Use and Transportation Element, Final EIR, February.

<sup>12</sup> City of Oakland, 2010. 2007–2015 Housing Element Update, Final EIR.

<sup>13</sup> City of Oakland, 2014. 2015–2023 Housing Element Addendum to the 2010 Housing Element EIR.

<sup>14</sup> Oakland Redevelopment Agency, 2011a. Draft EIR for the Proposed Amendments to the Central District Urban Renewal Plan, March.

Each of these documents is hereby incorporated by reference. They can be obtained from the City of Oakland Bureau of Planning at 250 Frank H. Ogawa Plaza, Suite 3315, Oakland, California 94612, and viewed online at: <http://www2.oaklandnet.com/government/o/PBN/index.htm>.

### **Land Use and Transportation Element EIR**

The City certified the EIR for the General Plan LUTE in 1998 (1998 LUTE EIR). The LUTE identifies land use policies as change takes place and sets forth an action program to implement the land use policy through development controls and other strategies. The LUTE identifies five Showcase Districts targeted for continued growth and intended to promote a mixture of vibrant and unique districts with around-the-clock activity, continued expansion of job opportunities, and growing residential population. The Proposed Project is located within the Downtown Showcase District (Downtown).

As stated previously, the 1998 LUTE EIR is designated as a Program EIR under CEQA Guidelines Sections 15183 and 15183.3. As such, subsequent activities under the LUTE are subject to the requirements of these CEQA sections (see Chapter VI for further discussion).

Applicable mitigation measures identified in the 1998 LUTE EIR are largely the same as those identified in the other Program EIRs prepared after the 1998 LUTE EIR, either as mitigation measures or newer Standard Conditions of Approval (SCAs), the latter of which are described below.

#### *Environmental Effects Summary*

The 1998 LUTE EIR determined that development consistent with the LUTE would result in impacts that would be reduced to a less-than-significant level with the implementation of mitigation measures and/or SCAs. Mitigation is required for the following resource topics: Aesthetics (views, architectural compatibility and shadow only); Air Quality (construction dust [including particulate matter less than 10 microns in diameter] and roadway emissions Downtown, odors); Cultural Resources (except as noted below as less than significant); Hazards and Hazardous Materials; Land Use (use and density incompatibilities); Noise (use and density incompatibilities, including from transit/transportation improvements); Population and Housing (induced growth, policy consistency/clean air plan); Public Services (except as noted below as significant); and Transportation and Circulation (intersection operations Downtown).

In the 1998 LUTE EIR less-than-significant impacts were identified for the following resources: Aesthetics (scenic resources, light and glare); Air Quality (clean air plan consistency, roadway emissions in Downtown, energy use emissions, local/regional climate change); Biological Resources; Cultural Resources (historic context/settings, architectural compatibility); Energy; Geology and Seismicity; Hydrology and Water Quality; Land Use (conflicts in mixed use projects and near transit); Noise (roadway noise

Downtown and citywide, multi-family near transportation/transit improvements); Population and Housing (exceeding household projections, housing displacement from industrial encroachment); Public Services (water demand, wastewater flows, stormwater quality, parks services); and Transportation and Circulation (transit demand). No impacts were identified for Agricultural and Forestry Resources or Mineral Resources.

Significant unavoidable impacts were identified for the following environmental resources in the 1998 LUTE EIR: Air Quality (regional emissions, roadway emissions Downtown); Noise (construction noise and vibration in Downtown); Public Services (fire safety); Transportation and Circulation (roadway segment operations); Wind Hazards; and Policy Consistency (clean air plan). Due to the potential for significant unavoidable impacts, a Statement of Overriding Considerations was adopted as part of the City's approvals.

### **Oakland Housing Element Update EIR and Addendum**

Since the 2004 Uptown EIR, the City has twice amended its General Plan to adopt updates to the Housing Element. The City certified a 2010 EIR plus a 2014 addendum (2010 Housing Element Update EIR) for the Housing Element. The General Plan identifies the City's current and projected housing needs, and sets goals, policies, and programs to address those needs, as specified by the State of California Regional Housing Needs Allocation process. The Uptown Project contributes to the total number of housing units needed within Oakland to meet its needs allocation target. Applicable mitigation measures and SCAs identified in the 2010 Housing Element Update EIR are considered in the analysis of the residential components in this document. As stated previously, the 2010 Housing Element Update EIR was designated as a Program EIR under CEQA Guidelines Sections 15183 and 15183.3. As such, subsequent activities under the Housing Element that involve housing are subject to requirements under these CEQA Sections (see Chapter III for further discussion).

Applicable mitigation measures and SCAs (also described in Chapter V) identified in the 2010 Housing Element Update EIR are considered in the analysis of this document.

### *Environmental Effects Summary*

The 2010 Housing Element Update EIR, including its Initial Study Checklist, determined that housing developed pursuant to the Housing Element would result in impacts that would be reduced to a less-than-significant level with the implementation of mitigation measures and/or SCAs (described in Attachment A). Mitigation is required for the following resource topics: Aesthetics (visual character/quality and light/glare only); Air Quality (except as noted below); Biological Resources; Cultural Resources; Geology and Soils; Greenhouse Gas Emissions; Hazards and Hazardous Materials (except as noted below, with no impacts regarding airport/airstrip hazards and emergency routes); Hydrology and Water Quality (except as noted below); Noise; Public Services (police and fire only); and Utilities and Service Systems (except as noted below).

Less-than-significant impacts were identified for the following resources in the Housing Element Update EIR: Hazards and Hazardous Materials (emergency plans and risk via transport/disposal); Hydrology and Water Quality (flooding/flood flows, and inundation by seiche, tsunami, or mudflow); Land Use (except for no impact regarding community division or conservation plans); Population and Housing (except for no impact regarding growth inducement); Public Services and Recreation (except as noted above, and no impact regarding new recreation facilities); and Utilities and Service Systems (landfill, solid waste, and energy capacity only, and no impact regarding energy standards). No impacts were identified for Agricultural and Forestry Resources or Mineral Resources.

Significant unavoidable impacts were identified for the following environmental resources in the Housing Element Update EIR: Air Quality (toxic air contaminant exposure) and Transportation and Circulation (traffic delays). Due to the potential for significant unavoidable impacts, a Statement of Overriding Considerations was adopted as part of the City's approvals.

### **The 2011 Central District Urban Renewal Plan EIR**

The Proposed Project site is located within the Central District Urban Renewal Plan (Renewal Plan) area, which generally encompasses the entire Downtown. It covers approximately 250 city blocks (828 acres) and is generally bounded by Interstate 980 (I-980), Lake Merritt, 27<sup>th</sup> Street, and the Embarcadero. The Oakland City Council adopted the Renewal Plan for the project area in June 1969. The City prepared and certified an EIR for proposed amendments to the Central District Urban Renewal Plan in 2011 (2011 Renewal Plan EIR) and amended the plan up to April 3, 2012.<sup>15</sup> As stated previously, the 2011 Renewal Plan EIR was designated as a Program EIR under CEQA Guidelines Section 15180, and as such, subsequent activities are subject to the requirements of CEQA Guidelines Section 15168.

Applicable mitigation measures and SCAs (described in Chapter V) identified in the 2011 Renewal Plan EIR are considered in the analysis in this document.

### *Environmental Effects Summary*

The 2011 Renewal Plan EIR determined that development facilitated by the proposed amendments would result in impacts that would be reduced to a less-than-significant level with the implementation of identified mitigation measures and/or SCAs (described in

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<sup>15</sup> The 2011 Renewal Plan EIR addressed two amendments. A 17th Amendment to the Redevelopment Plan to: (1) extend the duration of the plan from 2012 to 2022 and extend the time period in which the then-Redevelopment Agency could receive tax increment funds from 2022 to 2032, as allowed by Senate Bill 211 (codified as Health and Safety Code Section 33333.10 et seq.); (2) increase the cap on the receipt of tax increment revenue to account for the proposed time extensions; and (3) renew the then-Redevelopment Agency's authority to use eminent domain in the project area. An 18th amendment further extended the plan time limit from 2022 to 2023 and extended the time period in which the then-Redevelopment Agency could receive tax increment funds from 2032 to 2033, as allowed by Health and Safety Code Section 33331.5.

Chapter V). Mitigation would be required in the following resource topics: Aesthetics (light/glare), Air Quality (except as noted below as significant), Biological Resources, Cultural Resources (except as noted below as significant), Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise (except as noted below as significant), Traffic and Circulation (except as noted below as significant), and Utilities and Service Systems.

Less-than-significant impacts were identified for the following resources in the 2011 Renewal Plan EIR: Land Use and Planning; Population, Employment, and Housing; Public Services and Recreation Facilities.

The 2011 Renewal Plan EIR found that the proposed amendments would have significant unavoidable impacts on the following environmental resources: Air Quality; Cultural Resources; and Traffic and Circulation.<sup>16</sup> Due to the potential for significant unavoidable impacts, a Statement of Overriding Considerations was adopted as part of the City's approvals.

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<sup>16</sup> The 2011 Renewal Plan EIR also identified significant and avoidable noise effects (specifically associated with the potential development of a new baseball stadium at Victory Court) and multimodal safety at at-grade rail crossings, both near the Oakland Estuary. These effects would not pertain to the Proposed Project given the distance and presumably minimal contribution of multimodal trips affecting these impacts.





### **III. PURPOSE AND SUMMARY OF THIS CEQA DOCUMENT**

The purpose of this CEQA document is to evaluate the potential environmental effects of the Proposed Project and to determine whether such impacts were adequately covered under the Uptown EIRs or Program EIRs such that CEQA streamlining and/or tiering provisions and exemptions could be applied. The analysis herein incorporates information from the Uptown EIRs and Program EIRs. It includes a CEQA Checklist and supporting documentation to provide comprehensive review and public information for the basis of any determination.

Based on the environmental evaluation, and as the checklist demonstrates, the Proposed Project qualifies for several CEQA streamlining and/or tiering provisions and CEQA exemptions, each of which separately and independently provide a basis for CEQA compliance. These provisions and exemptions are discussed below.

#### **Addendum**

Public Resources Code Section 21166 and CEQA Guidelines Section 15164 (Subsequent EIRs, Supplements, and Addenda to an EIR or Negative Declaration) state that an addendum to a certified EIR is allowed when minor changes or additions are necessary and none of the conditions for preparation of a subsequent EIR or Negative Declaration pursuant to Sections 15162 and 15164 are satisfied. As discussed under Project Characteristics below, the Proposed Project represents a minor change to the Block 8 development from that analyzed for the original Uptown Project in the Uptown EIRs. The Proposed Project does not represent a substantial change from what was described for development in the original Uptown Project; while the development proposed for Block 8 includes different uses (multi-story residential as opposed to single-story commercial); it involves construction of a building that is consistent with the type of overall development evaluated in the Uptown EIRs. The Proposed Project therefore meets the requirements for an addendum (see Attachment B), and the analysis in the Uptown EIRs directly applies to the Proposed Project, providing the basis for the use of an addendum.

#### **Community Plan Exemption**

Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183 (Projects Consistent with a Community Plan or Zoning) allow streamlined environmental review for projects that are “consistent with the development density established by existing zoning, community plan or general plan policies for which an EIR was certified, except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site.” Section 15183(c) specifies that “if an impact is not peculiar to the parcel or to the Proposed Project, has been addressed as a significant effect in the prior EIR, or can be substantially mitigated by the imposition of uniformly applied development policies or standards..., then an EIR need not be prepared for the project solely on the basis of that impact.” The analysis in the Uptown EIRs and Program

EIRs—1998 LUTE EIR, 2011 Renewal Plan EIR, and 2010 Housing Element Update EIR—are applicable to the Proposed Project and are the Previous CEQA Documents providing the basis for use of the Community Plan Exemption.

### **Qualified Infill Exemption**

Public Resources Code Section 21094.5 and CEQA Guidelines Section 15183.3 (Streamlining for Infill Projects) allow streamlining for certain qualified infill projects by limiting the topics subject to review at the project level, if the effects of infill development have been addressed in a planning level decision, or by uniformly applicable development policies. Infill projects are eligible if they (1) are located in an urban area on a site that either was previously developed or that adjoins existing qualified urban uses on at least 75 percent of the site’s perimeter; (2) satisfy the performance standards provided in CEQA Guidelines Appendix M; and (3) are consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in either a sustainable communities strategy or an alternative planning strategy. No additional environmental review is required if the infill project would not cause any new specific effects or more significant effects, or if uniformly applicable development policies or standards would substantially mitigate such effects. The analysis in the Uptown EIRs and the Program EIRs—1998 LUTE EIR, 2011 Renewal Plan EIR, and (for the residential components of the Proposed Project) the 2010 Housing Element Update EIR—are applicable to the Proposed Project and are the Previous CEQA Documents providing the basis for use of the Streamlining for Infill Projects under CEQA Guidelines Section 15183.3.

### **Program EIRs and Redevelopment Projects**

CEQA Guidelines Section 15168 (Program EIRs) and Section 15180 (Redevelopment Projects) provide that the 2011 Renewal Plan EIR can be used as a Program EIR in support of streamlining and/or tiering provisions under CEQA. The 2011 Renewal Plan EIR is a Program EIR for streamlining and/or tiering provisions by CEQA Section 15168. The section defines the Program EIR as one prepared on a series of actions that can be characterized as one large project and that are related geographically and by other shared characteristics. Section 15168 continues that “subsequent activities in the program EIR must be examined in the light of the program EIR to determine whether an additional environmental document must be prepared.” If the agency finds that pursuant to CEQA Guidelines Section 15162, no new effects could occur or no new mitigation measures would be required, the agency can approve the Proposed Project as being within the scope of the project covered by the Program EIR, and no new environmental document would be required.

Further, CEQA Guidelines Section 15180 specifies that “if a certified Redevelopment Plan EIR is prepared, no subsequent EIRs are required for individual components of the

Redevelopment Plan unless a subsequent EIR or supplement to the EIR would be required by Section 15162 or 15163.”

### **Previous Mitigation Measures and Current Standard Conditions of Approval**

The CEQA Checklist provided in Chapter VI of this document evaluates the potential environmental effects of the Proposed Project, and evaluates whether such impacts were adequately analyzed and addressed in the Uptown EIRs (as well as the Program EIRs previously described in Chapter II) to allow the CEQA streamlining provisions to apply. The analysis conducted incorporates by reference the information contained in the Uptown EIRs and each of the Program EIRs. The Proposed Project is legally required to incorporate and/or comply with any applicable requirements and mitigation measures identified in the Uptown EIRs. Therefore, the measures are herein assumed to be included as part of the Proposed Project, including those that have been modified to reflect the City’s current standard language and requirements, as discussed below.

### **SCA Application in General**

The City of Oakland established SCAs and Uniformly Applied Development Standards after certification of the 2004 Uptown EIR and the 1998 LUTE EIR. The City also recently adopted an updated version of the SCAs from those included in the 2010 Housing Element Update EIR. The City’s SCAs are incorporated into and applied to new and changed projects as conditions of approval, regardless of a project’s environmental determination. The SCAs incorporate policies and standards from various adopted plans, policies, and ordinances (e.g., Oakland Planning Code and Municipal Code, Creek Protection Ordinance, Stormwater Water Management and Discharge Control Ordinance, Tree Protection Ordinance, Grading Regulations, National Pollutant Discharge Elimination System [NPDES] permit requirements, Housing Element-related mitigation measures, California Building Code and Uniform Fire Code). The implementation of these policies and standards has been found to substantially mitigate environmental effects. The SCAs are adopted as requirements of an individual project when it is approved by the City and are designed to, and would, substantially mitigate environmental effects.

Consistent with the requirements of CEQA, a determination of whether the Proposed Project would have a significant impact was made prior to the approval of the Proposed Project and, where applicable, SCAs and/or mitigation measures in the Uptown EIRs and the Program EIRs have been identified to mitigate those impacts. In some instances, exactly how the measures/conditions identified will be achieved awaits completion of future studies, an approach that is legally permissible where measures/conditions are known to be feasible for the impact identified; where subsequent compliance with identified federal, state, or local regulations or requirements apply; where specific performance criteria is specified and required; and where the Proposed Project commits to developing measures that comply with the requirements and criteria identified.

## SCA Application in this CEQA Document

Several SCAs would apply to the Proposed Project because of its characteristics and proposed changes to the Uptown Project; they are triggered by the City’s consideration of a discretionary action for the Proposed Project. Because the SCAs are mandatory City requirements, the impact analyses for new and modified projects assumes that all applicable SCAs will be imposed and implemented by the Proposed Project in question.

Mitigation measures identified in the Uptown EIRs would apply to the Proposed Project and are listed in Attachment A to this document. Certain mitigation measures identified in the Uptown EIRs have since been adopted by the City as SCAs for all projects. Therefore, some of the previously identified mitigation measures have been modified, and in some cases wholly replaced, to reflect the City’s current standard language and requirements of its SCAs. All mitigation measures and applicable SCAs for the Proposed Project are listed in Attachment A to this document. Some of the SCAs identified in this document apply to the Proposed Project and were also identified in the 2011 Renewal Plan EIR, 2010 Oakland Housing Element Update EIR, and 1998 LUTE EIR prior to the City’s application of SCAs.

## Aesthetics and Parking Analysis

CEQA Section 21099(d) states, “Aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site located within a transit priority area shall not be considered significant impacts on the environment.”<sup>17</sup> Accordingly, aesthetics and parking, for such projects, are no longer to be considered in determining if a project has the potential to result in significant environmental effects for projects that meet all three of the following criteria:

- The Proposed Project is in a transit priority area.<sup>18</sup>
- The Proposed Project is on an infill site.<sup>19</sup>
- The Proposed Project is residential, mixed-use residential, or an employment center.<sup>20</sup>

The Proposed Project meets each of the above three criteria because it: (1) is located immediately adjacent to the 19<sup>th</sup> Street BART Station as well as the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods; (2) is located on a project site that was

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<sup>17</sup> CEQA Section 21099(d)(1).

<sup>18</sup> CEQA Section 21099(a)(7) defines a “transit priority area” as an area within one-half mile of an existing or planned major transit stop. A “major transit stop” is defined in CEQA Section 21064.3 as a rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

<sup>19</sup> CEQA Section 21099(a)(4) defines an “infill site” as a lot located within an urban area that has been previously developed, or a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses

<sup>20</sup> CEQA Section 21099(a)(1) defines an “employment center” as a project located on property zoned for commercial uses with a floor area ratio (FAR) of no less than 0.75 and located within a transit priority area.

previously developed and within a developed urban area of Oakland that includes commercial, office and residential uses; and (3) would be a residential project. Thus, this CEQA Analysis does not consider aesthetics and the adequacy of parking in determining the significance of project impacts under CEQA.

The City of Oakland recognizes that the public and decision makers nonetheless may be interested in information pertaining to the aesthetic effects and may desire that such information be provided as part of the environmental review process. Parking is not generally considered for CEQA purposes, however, this information is provided solely for informational purposes and is not used to determine the significance of the environmental impacts of the Proposed Project, pursuant to CEQA Section 21099 (d).

### **2016 Telegraph Avenue Project CEQA Compliance**

The Proposed Project separately and independently satisfies each of the CEQA streamlining provisions relied upon, as summarized below.

- **Addendum.** The analysis conducted in this document indicates that an addendum to the Uptown EIRs applies; therefore, this CEQA Analysis is considered to be the addendum. As discussed under Project Characteristics below, the Proposed Project represents a minor change to the Block 8 development from that analyzed under the original project analyzed in the Uptown EIRs. The Proposed Project does not represent a substantial change from that described for Block 8 in the project analyzed in the Uptown EIRs; while the development proposed for Block 8 includes slightly different uses (residential as opposed to student/faculty unit) evaluated in the Uptown EIRs, it would involve construction of a building that is consistent with the scope of overall development evaluated in the Uptown EIR. None of the conditions described in CEQA Guidelines Section 15162 are present or have occurred. The Proposed Project therefore meets the requirements for an addendum, as evidenced in Attachment B to this document.
- **Community Plan Exemption.** Based on the analysis conducted in this document, the Proposed Project also qualifies for a community plan exemption. The Proposed Project is permitted in the zoning district in which the site is located, and is consistent with the bulk, density, and land uses envisioned for the site. The analysis herein considers the analysis in the 2010 Oakland Housing Element Update EIR for the evaluation of the housing components of the Proposed Project, and further reconsiders the analysis in the 1998 LUTE EIR for the overall project. This CEQA Analysis concludes that the Proposed Project would not result in significant impacts that: (1) are peculiar to the project or project site; (2) were not identified as significant project-level, cumulative, or off-site effects in the 2004 Uptown EIR; or (3) were previously identified as significant effects, but are determined to have a more severe adverse impact than discussed in the EIR. Findings regarding the Proposed Project's consistency with the zoning are included as Attachment C to this document.

- **Qualified Infill Exemption.** The analysis indicates that the Proposed Project qualifies for a qualified infill exemption and is generally consistent with the required performance standards provided in CEQA Guidelines Appendix M, as evaluated in Table D-1 in Attachment D to this document. This CEQA analysis concurs that the Proposed Project would not cause any new specific effects or more significant effects than previously identified in applicable planning level EIRs and that uniformly applicable development policies or standards (SCAs) would substantially mitigate the project's effects. The Proposed Project is proposed on a previously developed site in an urbanized area of Oakland and is surrounded by urban uses. The Proposed Project is consistent with the land use, density, building intensity, and applicable policies for the site. The analysis herein considers the analysis in the Uptown EIRs, 1998 LUTE EIR, 2011 Renewal Plan EIR and 2010 Housing Element Update EIR.
- **Program EIRs and Redevelopment Plan.** Overall, based on an examination of the analysis, findings, and conclusions of the Uptown EIRs, as well as those of the 1998 LUTE EIR, the 2011 Renewal Plan EIR and the Housing Element Update EIR (all of which are as summarized in the CEQA Checklist in Chapter II of this document) the potential environmental impacts associated with the Proposed Project have been adequately analyzed and covered in prior Program EIRs. Therefore, no further review or analysis under CEQA is required.

## IV. PROJECT DESCRIPTION

This section describes the Proposed Project, which is evaluated in this CEQA analysis. The Proposed Project site and existing site conditions are described, the project details are discussed, and the required project approvals are presented.

### Project Location

As shown in Figure 3, the Proposed Project site is at 2016 Telegraph Avenue and 490 Thomas L. Berkley Way, at the northeast corner of the Thomas L. Berkley Way (20<sup>th</sup> Street)/ Telegraph Avenue intersection. The Proposed Project site is approximately 20,814 square feet (0.47 acres) and includes the following assessor's parcel numbers (APNs): 008-0649-010 and 008-0649-09. The site is within Block 8 of the Uptown Project (Figure 2). The Proposed Project site is bounded by Telegraph Avenue to the west; 20<sup>th</sup> Street to the south; a vacant two-story building, followed by the I. Magnin building, to the east; and Hutch Bar and the Paramount Theater to the north and northeast, respectively.

### Existing Site Conditions

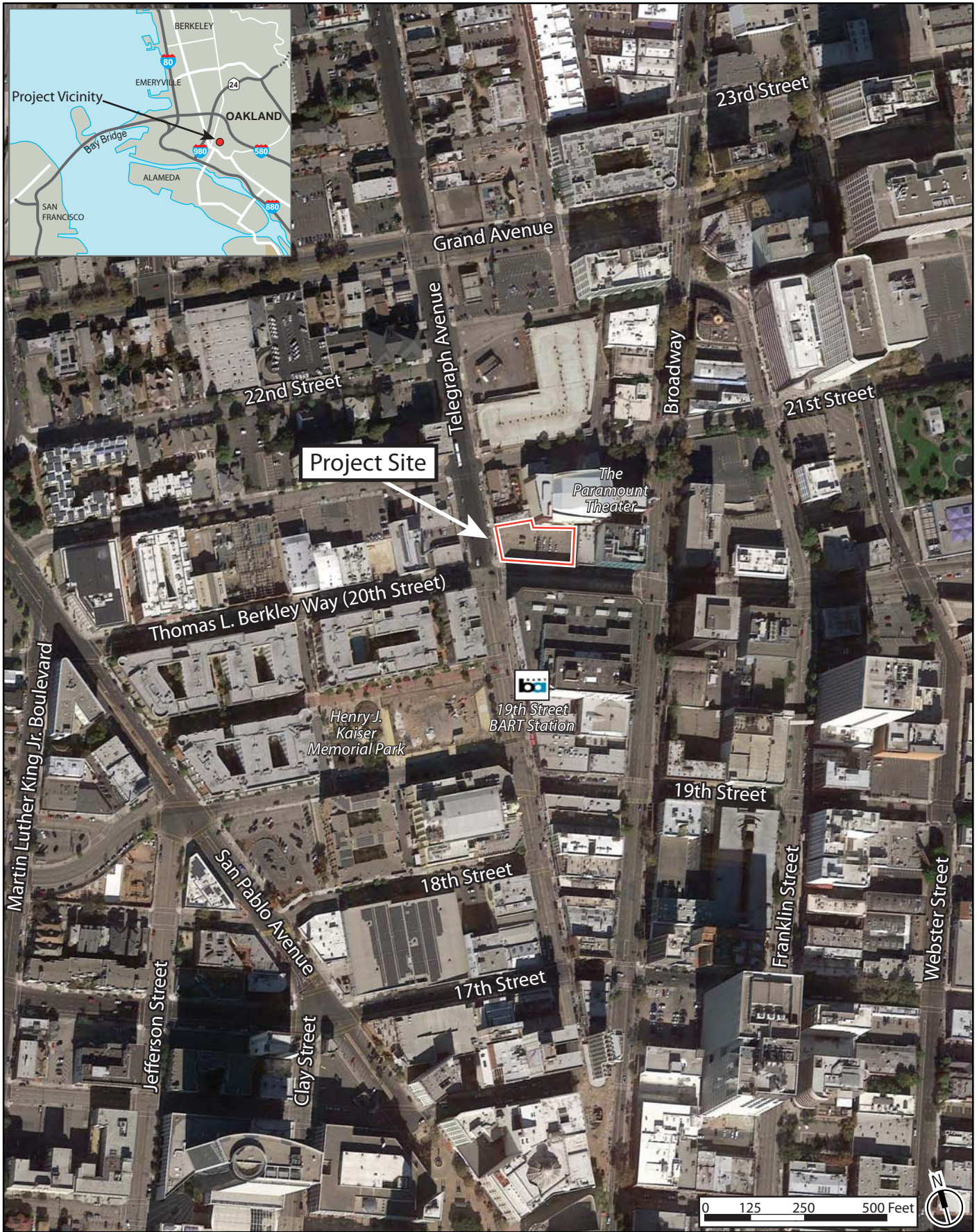
The Proposed Project site is currently developed and includes a one-story parking kiosk (APN 008-0649-010) and a surface parking area (APN 008-0649-009). Existing conditions for Block 8 are unchanged from those described in the Uptown EIRs.

### Surrounding Context

The Proposed Project site is bordered by Hutch Bar and Kitchen and the Paramount Theater to the north, Thomas L. Berkley Way (20<sup>th</sup> Street) to the south, Telegraph Avenue to the west, and retail buildings to the east. It is within the Central Business District (CBD) under the Oakland General Plan and is zoned Central Business District Pedestrian Retail (CBD-P).

The City of Oakland General Plan land use designation for the Proposed Project site is CBD; this 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.

Land uses in the Proposed Project vicinity include commercial, residential, and entertainment. The Great Western Power Company Gym, SEIU United Healthcare Workers, and Alameda County Social Services are located to the west. Fox Courts and the Uptown Apartments are residential uses located to the southwest, in addition to the Fox Theater, Henry J. Kaiser Memorial Park, and the Oakland Ice Center. The Proposed Project site is located north of the growing entertainment area of Uptown, which includes bars, restaurants, and night clubs. Various proposed developments and projects currently under construction are located to the east of the Proposed Project site. These include



Source: Google Earth Pro, 2016

2016 Telegraph Avenue Project CEQA Analysis

Figure 3  
Project Location



2100 Telegraph Avenue, 2015 Telegraph Avenue, and the Uptown Station, located at 1954 Telegraph Avenue.

The Proposed Project site is accessible from interstate 980 (I-980), approximately 0.25-mile to the west; I-580, approximately 1 mile to the north; and Interstate 880 (I-880), approximately 1 mile south. The 19<sup>th</sup> Street Bay Area Rapid Transit District (BART) station is one block (0.1-mile) southeast of the site, and the 12<sup>th</sup> Street Oakland City Center BART station is approximately 0.5-mile south of the site, and multiple AC Transit bus lines are immediately adjacent to or within one block of the site.

### Project Characteristics

The Proposed Project would be located on Block 8 of the Uptown Project. The Proposed Project would include an 18-story (200-foot) building with a mezzanine, 230 residential units, 78 parking spaces, and 4,622 square feet of retail space. Retail space would be located on the ground floor. Approximately 10,976 square feet of parking would also be located on the ground floor of the structure, and the residential units would be on the 2<sup>nd</sup> through 18<sup>th</sup> floors. The 230 residential units would include 153 studios apartments, 59 one-bedroom apartments, 16 two-bedroom apartments, and one penthouse. Table 3 outlines the Proposed Project development details. Figure 4 shows the Proposed Project looking northeast from Telegraph Avenue and Thomas L. Berkley Way (20<sup>th</sup> Street). Figures 5, 6, and 7 show a cross-section of the Proposed Project and Figures 8 and 9 show the conceptual elevation of the Proposed Project.

**TABLE 3            2016 TELEGRAPH AVENUE PROJECT DEVELOPMENT DETAILS**

<b>Proposed Project</b>	<b>Amount</b>
Total Site Area	20,814 SF
Total Gross Floor Area	203,091
Gross Residential Area, Including Amenities	141,795 SF
Gross Commercial/Retail Area	4,622 SF
Gross Parking Area	10,976 SF
Gross Open Space	14,350 SF
Residential Units	230 DU
Parking Spaces	78 DU
Number of Building Levels	18
Building Height	200 SF

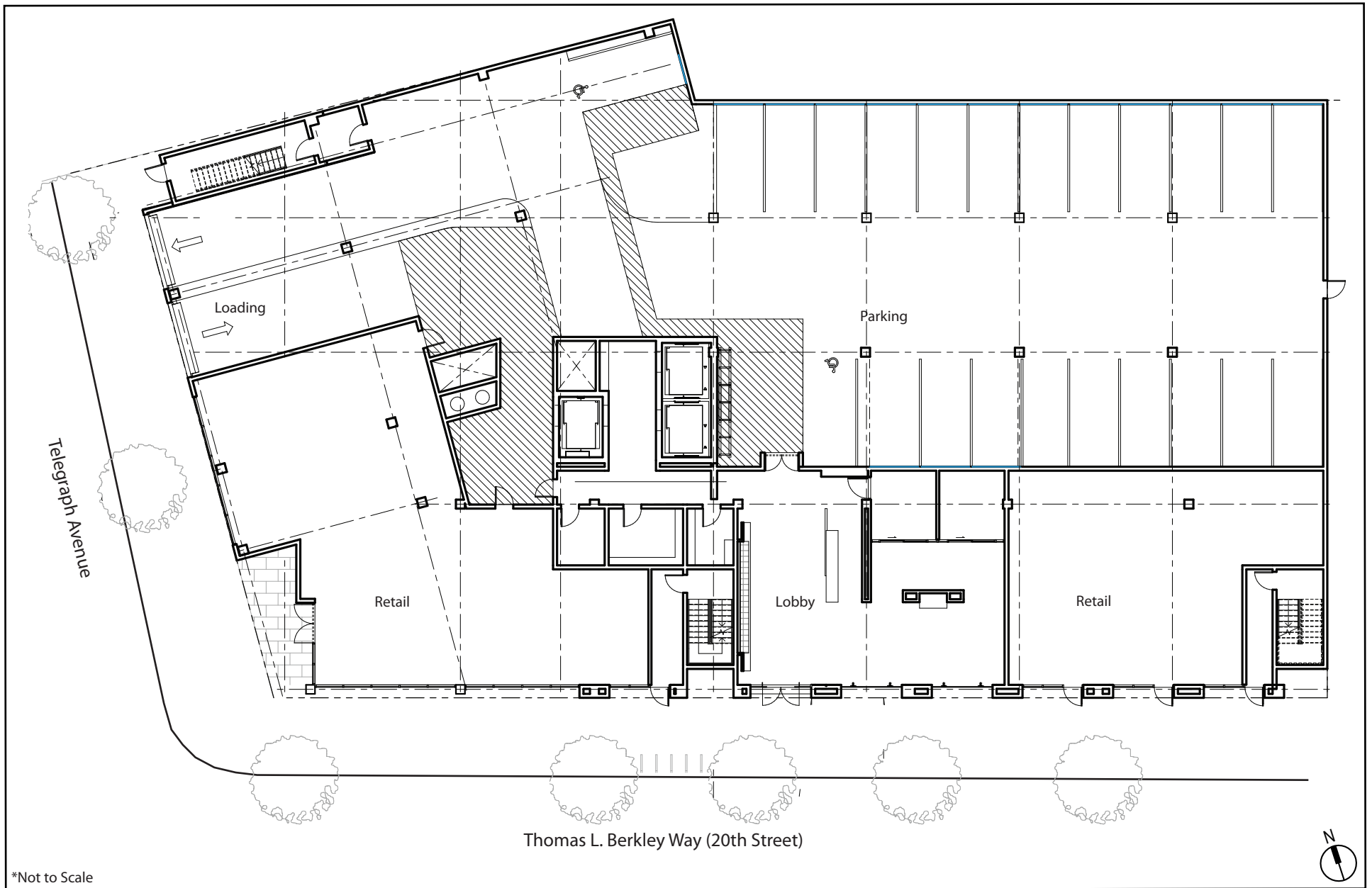
Notes: DU = dwelling units; SF= square feet  
Source: brick., 2016.



Source: brick, 2016

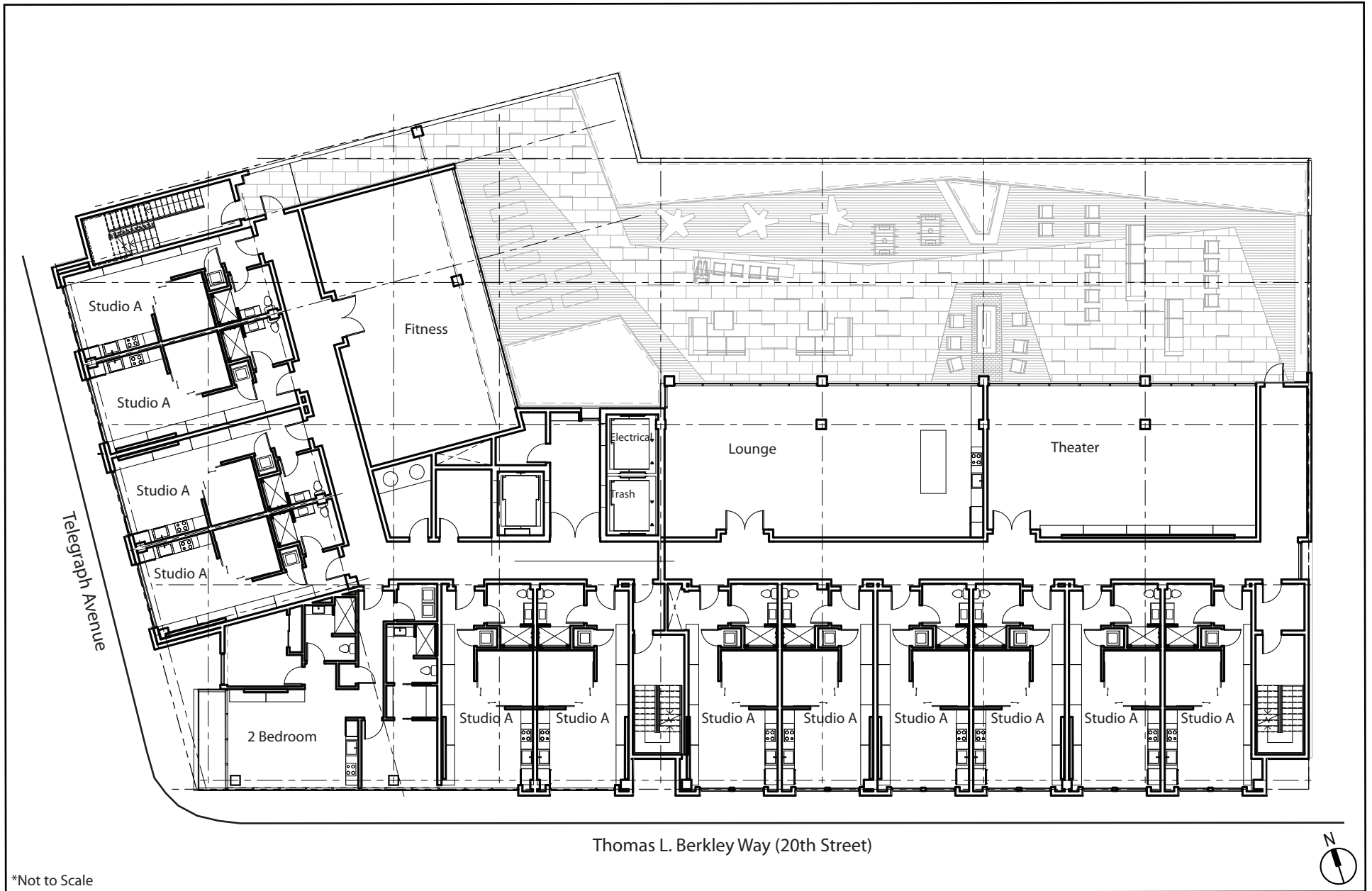
**2016 Telegraph Avenue Project CEQA Analysis**

Figure 4  
Proposed Project:  
Telegraph Avenue Perspective



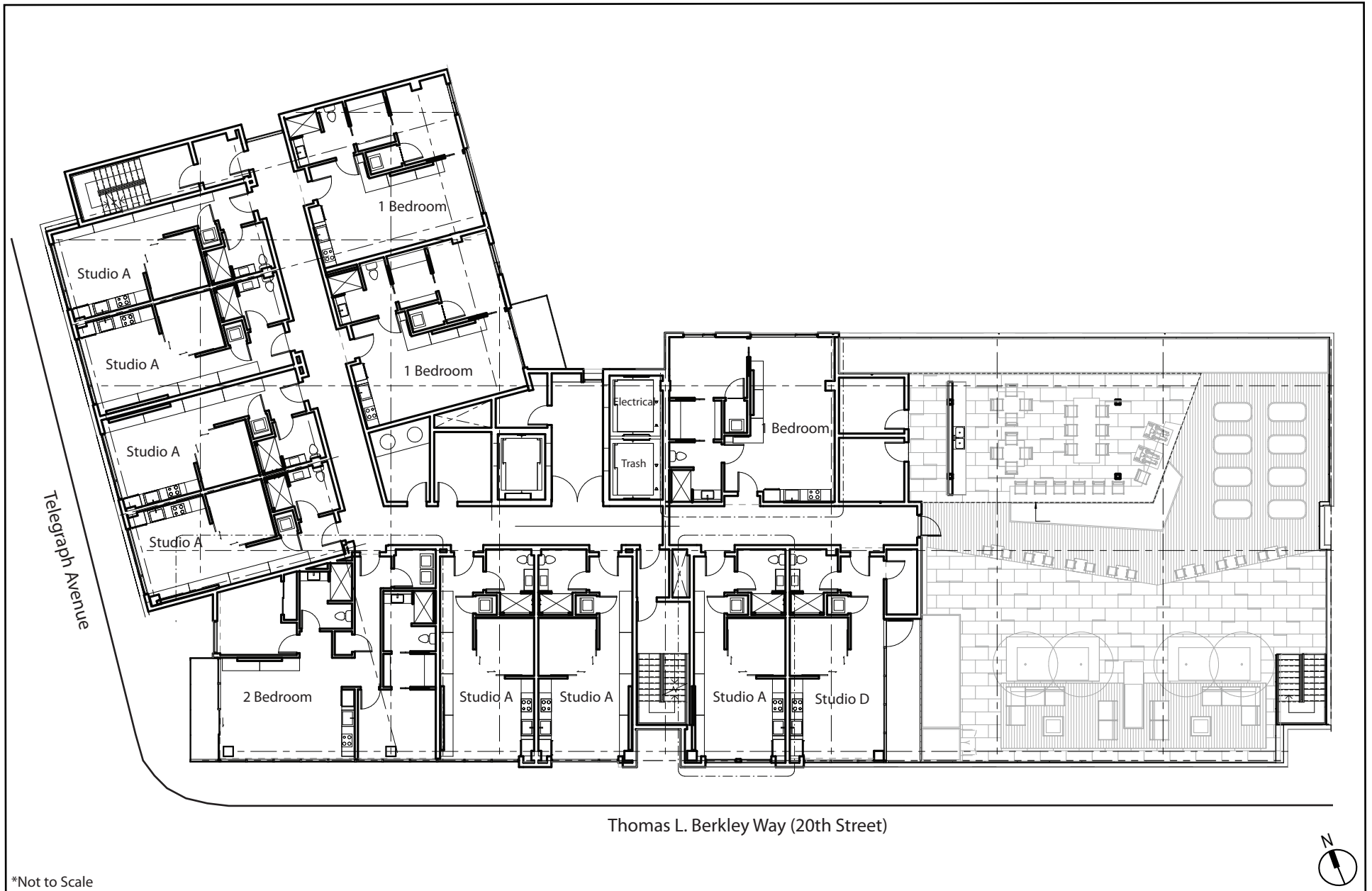
\*Not to Scale

Source: brick, 2016



\*Not to Scale

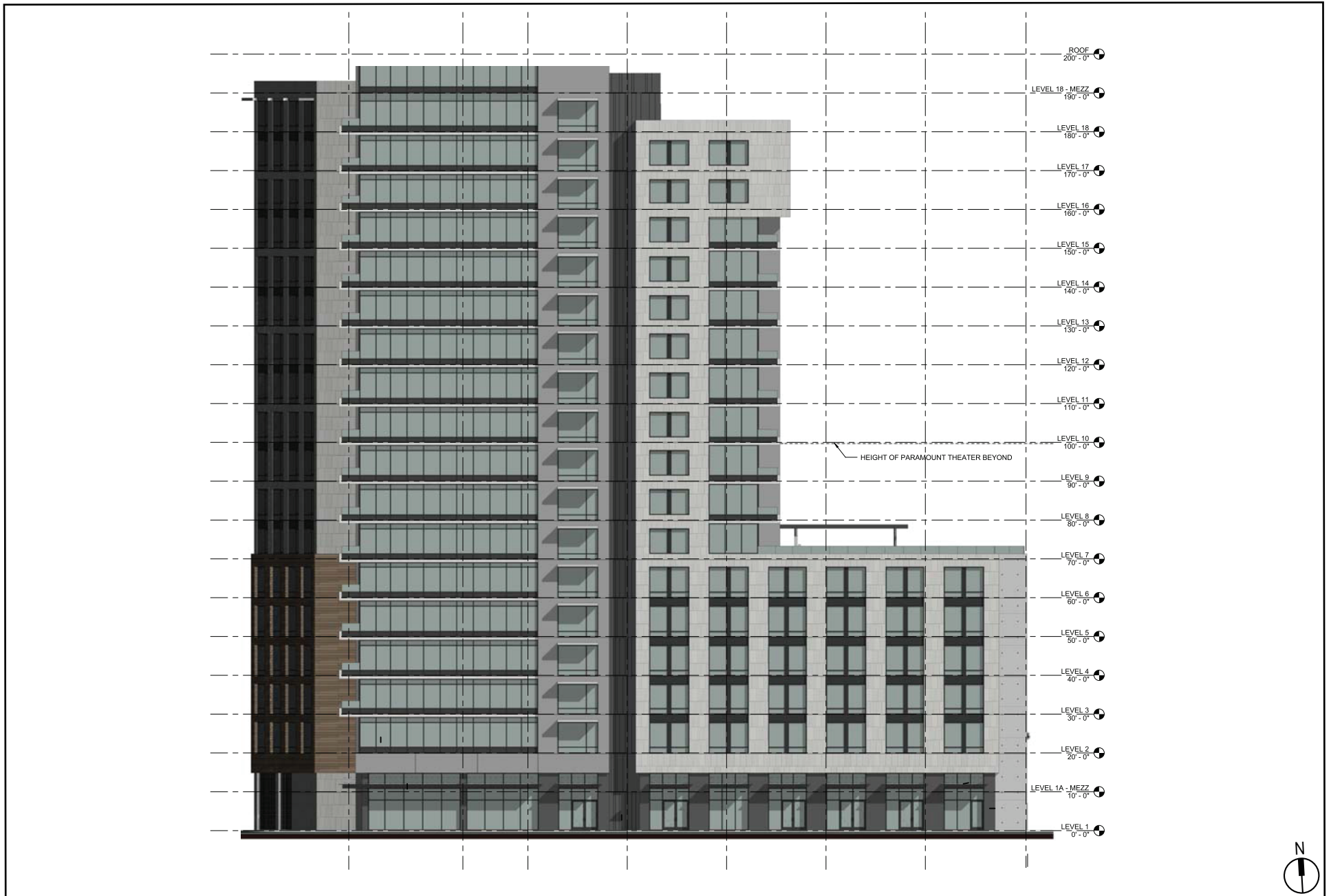
Source: brick, 2016



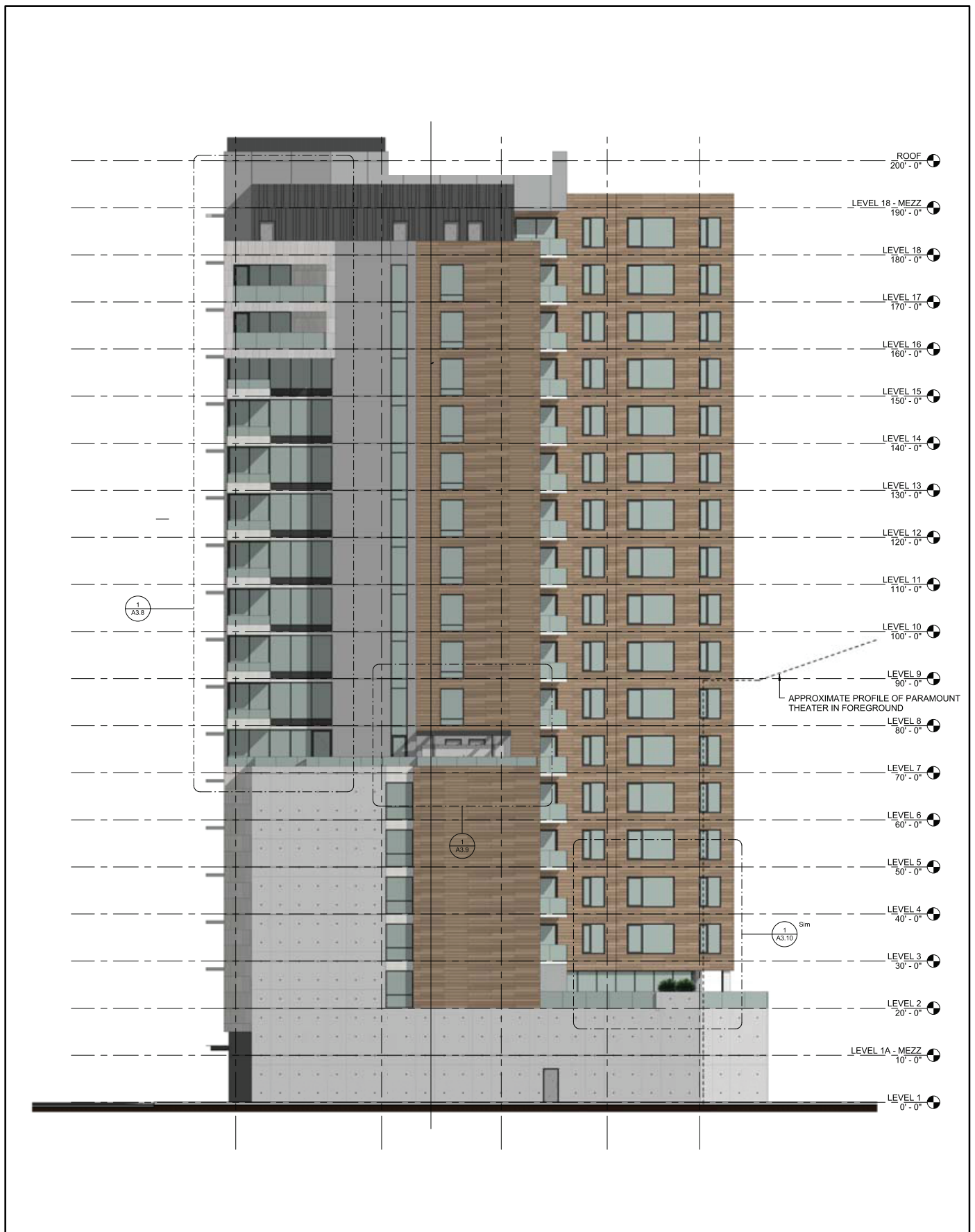
\*Not to Scale

Source: brick, 2016





Source: brick, 2016



Source: brick, 2016

Figure 10



As shown in Figure 7, the Proposed Project would not have one uniform height. The tallest component would be approximately 190 feet (18 stories) tall with additional screening for mechanical equipment located on the roof. The roof height would be 200 feet. The 18th story of the building would include approximately 1,929 square feet of common open space landscaped terrace. A portion of the building on the eastern side would be stepped down to approximately seven stories; the height of this component would be approximately 70 feet, and the roof area of this portion would include an approximately 4,470-square-foot common landscaped terrace. The exterior of both components would include concrete, textured concrete, metal paneling, and glass windows.

In this CEQA analysis, the proposed 2016 Telegraph Avenue development on Block 8, in addition to the approved or constructed development on the remainder of blocks 1 through 7, are collectively referred to as the Uptown Project per the Uptown EIRs. While this Addendum considers the development proposed at 2016 Telegraph Avenue, the collective Uptown Project is considered within the cumulative analysis.

Both proposed and completed development of the blocks considered in the Uptown EIRs, and a comparison of the Proposed Project variations considered in the Uptown EIRs are detailed in Table 4. An individual breakdown of the proposed or completed development for each block is included in Table 4. Development on Block 8, in addition to the development completed, under construction, or proposed on Blocks 1 through 7, would provide approximately 67 fewer residential units and about 750 more square feet of commercial space than the Uptown Project evaluated in the 2012 Supplemental EIR.

The 2016 Telegraph Avenue Project would introduce residential use onto a site that was considered by the Uptown EIRs for commercial use only, and would develop an 18-story building (with a mezzanine) as opposed to the single-story building previously considered. However, the increase in residential units on Block 8 would not exceed the total residential use for the Uptown Project area analyzed in the Uptown EIRs including the 2012 Supplemental EIR, as shown in Table 4.

### **Project Approvals**

The Proposed Project would require a number of discretionary actions and approvals, which include without limitation those listed below:

#### **Actions by the City of Oakland**

- Planning Director - Regular Design Review, Minor Variance, CEQA determination, and approval of parcel merger
- Building Bureau - Building permit
- Other City Permits - Grading permit and other related on-site and off-site work permits and minor encroachment permit

**TABLE 4 UPTOWN MIXED USE PROJECT LAND USE SUMMARY**

Use <sup>a</sup>	2004 Project EIR Total	2012 Supplemental EIR Total	Proposed and Built Projects by Parcel								2016 Built and Proposed	Difference Between 2016 and 2004 Projects	Difference Between 2016 and 2012 Projects
			Block 1	Block 2	Block 3	Block 4	Block 5	Block 6	Block 7	Block 8			
Residential Units	1,705	1,560	256	193	216	380	0	80	134	230	1,489	-216	-71
Commercial	43,000	169,934	0	0	9,000	19,934	120,000	0	15,685	4,622	169,241	+126,241	-693
Community Space	14,500	25,000	0	0	0	25,000	0	0	0	0	25,000	+10,500	0
Parking Spaces	1,909	1,809	224	137	69	296	309	72	62	78	1,247	-662	-562

<sup>a</sup> Commercial uses and community spaces are represented as square feet.  
 Sources: Uptown EIRs, Urban Planning Partners, 2016

**Actions by Other Agencies**

- East Bay Municipal Utility District (EBMUD): Approval of water line, water hookups and review of water needs
- Regional Water Quality Control Board (RWQCB): NPDES permit for stormwater discharge; approval and oversight of required remediation plan
- AT&T: Approval of communication line improvements and connection permits
- Pacific Gas & Electric (PG&E): Approval of natural gas improvements and connection permits



## V. SUMMARY OF FINDINGS

The CEQA Checklist evaluation in Chapter VI concludes that the Proposed Project qualifies for an addendum as a separate and independent basis from the applicable exemptions from additional environmental review. The Proposed Project was found to be consistent with the development density and land use characteristics established by the City of Oakland General Plan, and any potential environmental impacts associated with its development were adequately analyzed and covered by the analysis in the 2004 Uptown EIR and its three addenda (Uptown EIRs), and in the applicable Program EIRs: 1998 LUTE EIR, 2011 Renewal Plan EIR, and 2010 General Plan Housing Element EIR and 2014 Addendum (2010 Housing Element Update EIR).

The Proposed Project would be required to comply with the applicable mitigation measures identified in the Uptown EIRs, as updated and amended, and any applicable City of Oakland SCAs presented in Attachment A to this document.<sup>21</sup> With the implementation of the applicable mitigation measures and SCAs, the Proposed Project would not result in a substantial increase in the severity of significant impacts previously identified in the Uptown EIRs and/or the Program EIRs, nor would it result in any new significant impacts not previously identified in any of those CEQA documents.

In accordance with Public Resources Code Sections 21083.3, 21094.5, and 21166, and CEQA Guidelines Sections 15162, 15164, 15183, 15183.33, 15168, and 15180, and as set forth in the CEQA Checklist below, the proposed project qualifies for an addendum and one or more exemptions because the following findings can be made:

- **Addendum.** The Uptown EIRs analyzed the impacts of development within the Uptown Project. The Proposed Project would not cause new significant impacts not previously identified in the Uptown EIRs, and would not result in a substantial increase in the severity of previously identified significant impacts. No new mitigation measures would be necessary to reduce significant impacts. No changes have occurred with respect to circumstances surrounding the Uptown Project that would cause significant environmental impacts to which the Proposed Project would contribute considerably, and no new information has been put forward that shows the Proposed Project would cause significant environmental impacts. The Proposed Project therefore meets the requirements for an addendum, as evidenced in Attachment B to this document. Therefore, no supplemental environmental review is required in accordance with Public Resources Code Section 21166, and CEQA Guidelines Sections 15162, 15164, 15168, and 15180.

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<sup>21</sup> Throughout this document, except where necessary for clarity, "Uptown EIRs" encompasses the Draft EIR, Final EIR, and each subsequent addendum for the Uptown Project.

- **Community Plan Exemption.** Based on the analysis conducted in this document, the Proposed Project also qualifies for a community plan exemption. The Proposed Project is permitted in the zoning district where the Proposed Project site is located, and is consistent with the bulk, density, and land uses envisioned for the site. The analysis herein considers the analysis in the 2010 Oakland Housing Element Update EIR for the evaluation of the housing components of the Proposed Project, and further reconsiders the analysis in the 1998 LUTE EIR for the overall project. This CEQA Analysis concludes that the Proposed Project would not result in significant impacts that (1) are peculiar to the Proposed Project or Proposed Project site; (2) were not identified as significant project-level, cumulative, or off-site effects in the Uptown EIRs; or (3) were previously identified as significant effects, but are determined to have a more severe adverse impact than discussed in the EIR. Findings regarding the Proposed Project's consistency with the zoning are included as Attachment C to this document.
- **Qualified Infill Exemption.** The analysis indicates that the Proposed Project qualifies for an infill exemption and is generally consistent with the required performance standards provided in CEQA Guidelines Appendix M, as evaluated in Table D-1 in Attachment D to this document. This CEQA analysis concurs that the Proposed Project would not cause any new specific effects or more significant effects than previously identified in applicable planning level EIRs, and that uniformly applicable development policies or standards (SCAs) would substantially mitigate the Proposed Project's effects. The Proposed Project is proposed on a previously developed site in downtown Oakland and is surrounded by urban uses. The Proposed Project is consistent with the land use, density, building intensity, and applicable policies for the site. The Proposed Project therefore meets the requirements for an addendum, as evidenced in Attachment B to this document. The analysis herein considers the analysis in the Uptown EIRs, 1998 LUTE EIR, and (for the residential components of the Proposed Project only) 2010 Housing Element Update EIR.
- **Program EIRs and Redevelopment Projects.** Overall, based on an examination of the analysis, findings, and conclusions of the Uptown EIRs, as well as those of the 1998 LUTE EIR, the 2011 Renewal Plan EIR, and the Housing Element Update EIR—all of which are as summarized in the CEQA Checklist in Chapter II of this document—the potential environmental impacts associated with the 2016 Telegraph Avenue Project have been adequately analyzed and covered in prior Program EIRs and the Uptown EIRs. Therefore, no further review or analysis under CEQA is required.

Each of the above findings provides a separate and independent basis for CEQA compliance.

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Signature  
Darin Ranelletti, Environmental Review Officer

June 13, 2017  
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Date

## VI. CEQA CHECKLIST

### Overview

The analysis in this CEQA Checklist summarizes the potential environmental impacts that could result from approval and implementation of the Proposed Project within Block 8, as evaluated in the certified Uptown EIRs. The analysis in this CEQA Checklist also summarizes the impacts and findings of Program EIRs that covered, specifically or as part of the cumulative analyses, the environmental effects of the Uptown Project and that are still applicable for the Proposed Project. As previously indicated, the Program EIRs are also referred to collectively throughout this CEQA Analysis as “Previous CEQA Documents” and include the Uptown EIRs, 1998 LUTE EIR, 2011 Renewal Plan EIR, and the 2010 General Plan Housing Element Update EIR. Given the timespan between the preparations of these EIRs, there are variations in the specific environmental topics addressed and significance criteria, however, as discussed above in Chapter III and throughout this Checklist, the overall environmental effects identified in each are largely the same and any significant differences are noted.

All mitigation measures, as modified herein, and SCAs identified for the Proposed Project are presented in Attachment A to this document, which is incorporated by reference into this CEQA analysis. SCAs are mandated by the City of Oakland; therefore, the impact analysis for the Proposed Project assumes they will be imposed and implemented, which the Project Sponsor has agreed to or ensures that they will be complied with as part of the Proposed Project. If this CEQA Checklist or its attachments inaccurately identifies or fails to list a mitigation measure or SCA, the applicability of that mitigation measure or SCA to the Proposed Project is not affected.

This CEQA Checklist hereby incorporates by reference the discussion and analysis of all potential environmental impact topics as presented in the certified Uptown EIRs and the Program EIRs. The significance criteria from the Uptown EIRs have been consolidated and abbreviated in this CEQA Checklist for administrative purposes; where appropriate, the significance criteria have been updated to reflect current City of Oakland significance criteria established after the Uptown EIRs and that now apply to the Proposed Project.

This CEQA Checklist provides a determination of whether the Proposed Project would result in any of the following:

- Equal or Less Severity of Impact Previously Identified in the Previous CEQA Documents
- Substantial Increase in Severity of Previously Identified Significant Impact in the Previous CEQA Documents
- New Significant Impact

Where the severity of the impacts of the Proposed Project would be the same as or less than the severity of the impacts described in the Previous CEQA Documents, the checkbox for “Equal or Less Severity of Impact Previously Identified in the Previous CEQA Documents” is checked. A check in the checkbox for “Substantial Increase in Severity of Previously Identified Significant Impact in the Previous CEQA Documents” or “New Significant Impact” indicates significant impacts that would be one of the following:

- Peculiar to the project or project site (pursuant to CEQA Guidelines Sections 15183 or 15183.3).
- Not identified in the previous Uptown EIRs, 2011 Renewal Plan EIR, 1998 LUTE EIR, or Housing Element Update EIR (per CEQA Guidelines Sections 15183 or 15183.3), including off-site and cumulative impacts (per CEQA Guidelines Section 15183).
- Due to substantial changes in the project (per CEQA Guidelines Section 15162 and 15168).
- Due to substantial changes in circumstances under which the project will be undertaken (per CEQA Guidelines Sections 15162 and 15168).
- Due to substantial new information not known at the time the Previous CEQA Documents were certified (per CEQA Guidelines Sections 15162, 15168, 15183, or 15183.3).

None of the aforementioned conditions were found for the Proposed Project, as demonstrated throughout the following CEQA Checklist and in its supporting attachments (Attachments B through H) that specifically describe how the Proposed Project meets the criteria and standards specified in the CEQA Guidelines sections identified above.

The Proposed Project is required to comply with applicable mitigation measures identified in the Program EIRs, and with City of Oakland SCAs. The Proposed Project sponsor has agreed to incorporate and/or implement the required mitigation measures and SCAs as part of the Proposed Project. This CEQA Checklist includes references to the applicable mitigation measures and SCAs.

A list of the mitigation measures and SCAs is included in Attachment A, and is incorporated by reference into the CEQA Checklist analysis. If the CEQA Checklist (including Attachment A) inaccurately identifies or fails to list a mitigation measure or SCA, the applicability of that mitigation measure or SCA to the Proposed Project is not affected. If the language describing a mitigation measure or SCA included in the CEQA Checklist (including Attachment A) is inaccurately transcribed, the language of the mitigation measure as set forth in the Program EIRs or City of Oakland SCAs shall control.



## **Attachments**

The following attachments are included at the end of this CEQA Checklist:

- A. Standard Conditions of Approval and Mitigation Monitoring and Reporting Program
- B. Criteria for Use of Addendum, per CEQA Guidelines Sections 15162, 15164, and 15168
- C. Project Consistency with Community Plans or Zoning, per CEQA Guidelines Section 15183
- D. Infill Performance Standards, per CEQA Guidelines Section 15183.3
- E. Shadow Study
- F. Wind Tunnel Study
- G. Air Quality and Health Risk Screening Analysis
- H. Traffic Noise Outputs
- I. Proposed Project Traffic Counts



**A. AESTHETICS, SHADOW, AND WIND**

Would the project:	Equal or Less Severity of Impact Previously Identified in the Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
a. Have a substantial adverse effect on a public scenic vista; substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, located within a state or locally designated scenic highway; substantially degrade the existing visual character or quality of the site and its surroundings; or create a new source of substantial light or glare that would substantially and adversely affect day or nighttime views in the area.	■	□	□
b. Introduce landscape that would now or in the future cast substantial shadows on existing solar collectors (in conflict with California Public Resource Code sections 25980-25986); or cast shadow that substantially impairs the function of a building using passive solar heat collection, solar collectors for hot water heating, or photovoltaic solar collectors.	■	□	□
c. Cast shadow that substantially impairs the beneficial use of any public or quasi-public park, lawn, garden, or open space; or cast shadow on an historical resource, as defined by CEQA Guidelines Section 15064.5(a), such that the shadow would materially impair the resource’s historic significance.	■	□	□
d. 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.	■	□	□

	Equal or Less Severity of Impact Previously Identified in the Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
Would the project:			
e. Create winds that exceed 36 miles per hour for more than 1 hour during daylight hours during the year. The wind analysis is only required if the project's height is 100 feet or greater (measured to the roof) and one of the following conditions exist: (a) the project is located adjacent to a substantial water body (i.e., Oakland Estuary, Lake Merritt or San Francisco Bay); or (b) the project is located in Downtown.	■	□	□

**Previous CEQA Documents Findings**

Scenic vistas, scenic resources, visual character, light and glare, and shadow were analyzed in the Program EIRs, which found that the effects to these topics would be less than significant. The 2011 Renewal Plan EIR and the 2010 Housing Element Update EIR cited applicable SCAs that would ensure less-than-significant visual quality effects. The 1998 LUTE EIR identified mitigation measures that are functionally equivalent to the SCAs to reduce certain potential aesthetic effects to less-than-significant levels. The 1998 LUTE EIR also identified potentially significant and unavoidable impacts regarding wind hazards.

The Uptown EIRs found that implementation of the Uptown Project would result in less-than-significant impacts related to scenic vistas and scenic character. Two significant impacts, which could be reduced to a less-than-significant level with mitigation measures, were identified related to new development altering the architectural character of the Uptown area and creating additional sources of nighttime lighting.

Since preparation of the Uptown EIRs, the CEQA statutes have been amended related to assessment of aesthetics impacts. CEQA Section 21099(d) states, "Aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site located within a transit priority area shall not be considered significant impacts on the environment."<sup>22</sup> Accordingly, aesthetics is no longer considered in determining if a project has the potential to result in significant environmental effects for projects that meet all three of the following criteria:

<sup>22</sup> CEQA Section 21099(d)(1).

1. The project is in a transit priority area.<sup>23</sup>
2. The project is on an infill site.<sup>24</sup>
3. The project is residential, mixed-use residential, or an employment center.<sup>25</sup>

The Proposed Project meets all three criteria because it is: (1) located immediately adjacent to the 19<sup>th</sup> Street BART Station and at the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods; (2) located on a project site that was previously developed and within a developed urban area of Oakland that includes commercial, office and residential uses; and (3) a residential project. Thus, this CEQA Analysis does not consider aesthetics and the adequacy of parking in determining the significance of project impacts under CEQA. Nonetheless, the City of Oakland recognizes that the public and decision makers may be interested in information pertaining to the aesthetic effects of a proposed project and may desire that such information be provided as part of the environmental review process. Therefore, the information below related to aesthetics is provided solely for informational purposes and is not used to determine the significance of the environmental, pursuant to CEQA.

### **Project Analysis**

#### *Scenic Vistas, Scenic Resources, Visual Character, and Light and Glare (Criterion I.a)*

The Proposed Project involves construction of an 18-story building on a site that is generally flat and contains limited views of Downtown Oakland and surrounding high-rise buildings.

Views to the East Bay Hills from the site and surrounding public viewpoints are limited by adjacent development. Block 8 and the Proposed Project site is currently developed with a surface parking lot. As described in the Uptown Project EIR, views from the site extend to Downtown Oakland and surrounding urban development and are not identified as vistas or resources in the General Plan, or by regulatory agencies with jurisdiction over the site. Further there are no identified scenic resources in the vicinity. Consistent with the findings of the Uptown EIRs, the Proposed Project would not significantly affect any scenic vistas or scenic resources even if aesthetic impacts were considered significant under CEQA.

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<sup>23</sup> CEQA Section 21099(a)(7) defines a “transit priority area” as an area within one-half mile of an existing or planned major transit stop. A “major transit stop” is defined in CEQA Section 21064.3 as a rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

<sup>24</sup> CEQA Section 21099(a)(4) defines an “infill site” as a lot located within an urban area that has been previously developed, or a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses.

<sup>25</sup> CEQA Section 21099(a)(1) defines an “employment center” as a project located on property zoned for commercial uses with a floor area ratio of no less than 0.75 and located within a transit priority area.

High-visibility buildings that can be seen from the site and define the surrounding visual character include the I. Magnin building and the Paramount Theater to the east and the former Emporium-Capwell building (currently being redeveloped for commercial office and ground-floor retail use) to the south; the Uptown apartments and Fox Oakland Theater to the southwest; mid- and high-rise buildings further south; and the multi-story YMCA and apartment complex on the north side of 21<sup>st</sup> Street. The Great Western Power Company building (formerly Navlet's Florist and Nursery), with its associated smokestack, is a landmark west of the Proposed Project site and across Telegraph Avenue. A five-story multi-family residential building is under construction on the west side of Block 7, immediately west of the Great Western Power Company building, and a 14-story multi-family residential building is proposed on Block 7 immediately east of the Great Western Power Company building. Views along the north side of Thomas L. Berkley Way (20<sup>th</sup> Street) west of the Proposed Project site include a mix of building types ranging from one to six stories.

The proposed building design and siting on the parcel would align with the adjacent buildings, and the building is proposed to cover the entire lot. The proposed 18-story tower would rise above a two-story base and be setback from the one- to four-story buildings to the north, south, and east. The Uptown EIRs considered Block 8 as the alternative location for the former Sears Auto Center, a single-story commercial building. While the Proposed Project is an 18-story tower, the Uptown EIRs evaluated adjacent buildings on Block 7 that would be between 19 and 22 stories and border a historic resource, the Great Western Power Company building. Similarly, the Proposed Project for Block 8 is an 18-story tower located behind the historical Paramount Theater. As such, similar findings to that of Block 7 can be found for the Proposed Project on Block 8. The Uptown EIRs found that the Uptown Project could significantly affect the intrinsic architectural character of the Proposed Project site and its surroundings. Similar to the Uptown EIRs findings for Block 7, the Proposed Project on Block 8 would have the following potential effects:

- Looking southeast from Telegraph Avenue near 22<sup>nd</sup> Street, the proposed 18-story building would appear prominently in the foreground.
- In relationship to the seven-story brick YMCA and three-story stone church buildings located on the north side of Telegraph Avenue between 21<sup>st</sup> and 23<sup>rd</sup> Streets, the height of the 18- story building could appear somewhat incongruous or overbearing, but would be of a similar scale to the proposed 14-story building on the corner of Telegraph and Thomas L. Berkley Way (20<sup>th</sup> Street).
- To the southwest beyond this new high-rise, development would appear to step down toward the Fox Theater, demarcated by the red vertical marquis sign, seen in the distance.
- The tower would not substantially block views of the Fox Theater.

- Development planned along Telegraph Avenue, including the Proposed Project site, would contribute to a more continuous streetwall along the east side of Telegraph Avenue. In this respect, the Proposed Project would strengthen urban streetscape character and the pedestrian environment along Telegraph Avenue in the vicinity.

The Uptown EIRs concluded that the height of the tower proposed on Block 7 would be noticeably taller than surrounding buildings and could appear somewhat out of scale in relationship to the heights of nearby existing and proposed buildings. The same finding would apply to the 2016 Telegraph Avenue Project on Block 8, due to the similar height to the considered development on Block 7. Further, given changes in the CEQA statutes (discussed above), the Proposed Project's impact related to the scale of the building and intrinsic visual character is no longer considered a significant CEQA impact for this type of project. As a result, no mitigation is required under CEQA.

The portion of the mitigation measure included in the Uptown EIRs that would have been applicable to the Proposed Project, and that the project applicant is still willing to implement, is listed below.

:

**Uptown EIRs Mitigation Measure AES-1:** The following measures shall be incorporated into the final project design:

- Create streetscape vitality and enhance the pedestrian experience through detailed treatment of building facades, including entryways, fenestration, and signage, and through the use of carefully chosen building materials, texture, and color.
- Design of building facades shall include sufficient articulation and detail to avoid the appearance of blank walls or box-like forms.
- Exterior materials utilized in construction of new buildings, as well as site and landscape improvements, shall be high quality and shall be selected for both their enduring aesthetic quality and for their long term durability.

The Proposed Project would comply with this mitigation measure (even though it is no longer required) as each façade is articulated throughout with window bays, steel and glass overhangs, and recessed podium level and rooftop decks creating a dynamic and textured appearance. Furthermore, exterior and landscape materials are of high quality and include precast concrete, textured metal paneling, and wood decking. Therefore, potential aesthetic impacts would be mitigated to a less-than-significant level.

The Uptown EIRs also identified impacts related to additional sources of daytime glare and night-time lighting in the downtown and recommended Mitigation Measure AES-2a and -2b to ensure all impacts related to light and glare are reduced to a less-than-significant level. Since certification of the Uptown EIRs, the City has adopted updated SCAs that are applicable to all development projects and many of which are functional equivalent to, or more protective than, mitigation measures included in the Previous CEQA Documents.

The mitigation measure included in the Uptown EIRs that would have been applicable to the Proposed Project is listed below for informational purposes.

**Uptown EIRs Mitigation Measure AES 2a and 2b:** The following measures shall be incorporated into the final project design:

**AES-2a:** The specific reflective properties of Project building materials shall be assessed by the City during Design Review as part of the Project’s Development Standards, Procedures and Guidelines. Design review shall ensure that the use of reflective exterior materials is minimized and that proposed reflective material would not create additional daytime or nighttime glare.

**AES-2b:** Specific lighting proposals shall be reviewed and approved by the City prior to installation. This review shall ensure that any outdoor night lighting for the Project is down shielded and would not create additional nighttime glare.

The Proposed Project would be required to comply with the City’s SCAs related to aesthetics prior to approval of construction-related permits, including SCA-AES-1: Lighting (#18), SCA-AES-2: Graffiti Control (#16), and SCA-AES-3: Landscape Plan (#17).

*Shade and Shadow (Criteria I.b through I.d)*

The Uptown EIRs found that no significant impacts regarding shade and shadow would occur, thus identified no mitigation measures or SCAs. To ensure the Proposed Project would not result in any impacts related to shade and shadow an updated and site-specific shadow study was completed based on the City of Oakland’s significance threshold criteria. The Shadow Study is provided in Attachment E and summarized below.

Under the City of Oakland thresholds of significance, a project would have a significant shadow impact if it were to:

- introduce landscape that would cast substantial shadows on existing solar collectors;
- cast a shadow that substantially impairs the function of a building using passive solar energy;
- cast a shadow that substantially impairs the beneficial use of any public or quasi-public park, lawn, garden, or open space; or
- cast a shadow on an historic resource such that the shadow would materially impair the resource’s historic significance by materially altering those physical characteristics of the resource that convey its historical significance and that justify its designation as an historic resource.

The Proposed Project would cast shadows at 9:00 a.m., 12:00 p.m., and 3:00 p.m. for the summer solstice (June 21<sup>st</sup>), spring/fall equinoxes (March 20<sup>th</sup> and September 22<sup>nd</sup>), and winter solstice (December 21<sup>st</sup>), based on City of Oakland significance threshold criteria.



The Shadow Study shows that the Proposed Project would cast shadows across Telegraph Avenue as well as along portions of 20<sup>th</sup> and 21<sup>st</sup> streets to the east and west of Telegraph Avenue, as well as a small portion of 22<sup>nd</sup> Street east of Telegraph. The Proposed Project would not cast new shadows on any known solar collectors and no public parks or open spaces would be shaded by the Proposed Project between 9:00 a.m. to 3:00 p.m. year-round. However some early morning shadows (prior to 7:30 a.m.) would fall across the Henry J. Kaiser Memorial Park during summer months.

The Proposed Project would cast some shadow on the following nearby historic resources between the hours of 9:00 a.m. and 3:00 p.m. throughout the year:

- 518 20<sup>th</sup> Street (Great Western Power Company building) which, due to its location due west and near the Proposed Project site to the west would receive morning shading on its rooftop and eastern property line wall from spring through fall annually.
- The southern and eastern street facades of 2101 Telegraph Avenue (the YMCA building) would receive some shading from late fall through early spring months, starting with a short midday duration in the fall and spring, with increasing coverage closer to Winter Solstice where project shading would occur between the hours of 8:40 a.m. to 11:40 a.m., with shadows moving from the western edge in the morning across the building eastward throughout the morning.
- Given the Proposed Project's location adjacent to 2525 Broadway (the Paramount Theater), a California State Historic Landmark, new shadows would be cast each day on the western and southern facades (i.e., the back and southwest rear side of the building) as well as a portion of the roof, year-round.

While the Proposed Project would cast shade upon nearby historical resources located at 518 20<sup>th</sup> Street (Great Western Power Company building), 2101 Telegraph Avenue (the YMCA building), and the southwest façade of 2525 Broadway (the Paramount Theater), the shade would not substantially or materially impair the materiality of the resources' historic significance as it will not alter the resources overall appearance and functionality as described in detail in Section VI.D, Cultural Resources.

The cumulative conditions in the Shadow Study assess the Proposed Project's potential impacts together with other proposed projects in the vicinity that have the potential to cast shadow on receptor sites. Projects included are: the proposed 2100 Telegraph Avenue project (max bulk for all three contemplated project schemes), the 2015 Telegraph Avenue project, the 1900 Broadway project, the 685 22<sup>nd</sup> Street project, the 459 23<sup>rd</sup> Street project and the 2270 Broadway project. The proposed 2015 Telegraph Avenue project, if built, would capture all Proposed Project generated shading on 518 20<sup>th</sup> Street, while also shade some of the same affected portions of 2525 Broadway shaded by the Proposed Project. The interaction between the shading profiles of the Proposed Project and the other cumulative condition projects is shown as part of Attachment E.

The Uptown EIRs identified no significant impacts regarding shade and shadow, thus requiring no mitigation measures or SCAs. The Proposed Project would not cast shadows on existing solar collectors in the area, nor would it cast shade on any nearby public or quasi-public parks, lawns, gardens, or open spaces during between 9:00 a.m. and 3:00 p.m. While shadows will be cast on historic resources, as described above, the shade does not substantially or materially impair their significance. As such, the Proposed Project would not have any significant impacts regarding shade and shadow.

*Wind (Criterion I.e)*

The Uptown EIRs identified potentially significant impacts related to new development on Blocks 4, 5, and 7 and included mitigation measures to ensure wind impacts would be less than significant. The following mitigation measures were identified in the Uptown EIRs. They are provided below for informational purposes but do not apply to Block 8, the Proposed Project site.

**Uptown EIRs Mitigation Measure WIND-1a and -1b:**

**Wind-1a:** The final design of the high-rise buildings on Blocks 4, 5, and 7 shall be in accordance with one or more of the following design guidelines. In addition, as part of the design review process for these high-rise buildings, a qualified wind consultant shall ensure the project is designed in accordance with these guidelines:

- Align long axis of each building along a northwest-southeast alignment to reduce exposure of the wide faces of the building to westerly or southeasterly winds,
- West or southeasterly building faces shall be articulated and modulated through the use of architectural devices such as surface articulation; variation; variation of planes, wall surfaces, and heights; and the placement of setbacks and other similar features.
- Utilize properly-located landscaping that mitigates high winds. Porous materials (e.g., vegetation, hedges, screens, latticework, perforated metal), which offer superior wind shelter compared to solid surfaces, shall be used.
- A void narrow gaps between buildings where westerly or southeasterly winds could be accelerated; or
- A void breezeways or notches at the upwind corners of the building.

**Wind-1b:** A qualified wind consultant shall review and evaluate the final design of the high-rise buildings on Blocks 4, 5, and 7, and shall determine whether incorporated design features would reduce wind impacts to a less-than-significant level. If the wind consultant determines that these design features would reduce wind impacts to a less-than-significant level (i.e., less than 36 mph), no further mitigation would be required. If the wind consultant determines that significant adverse wind impacts could occur, models of the proposed Blocks 5 and 7 buildings shall be subject to wind tunnel testing to

determine if the buildings would result in uncomfortable or hazardous winds. The wind consultant shall work with the Project architect to develop further building design modifications that would reduce wind impacts to a less-than-significant level (i.e., standard of less than 36 mph).

However, to ensure the Proposed Project would not result in any significant impacts consistent with the Uptown EIRs' findings, a site-specific wind analysis was prepared. The study's findings are summarized below and the complete study is provided in Attachment F.

The City of Oakland CEQA Thresholds of Significance Guidelines require that a wind analysis be conducted if the development has a height of 100 feet or greater (measured to the roof), and one of the following conditions exist.

- The project is located adjacent to a substantial water body (i.e., Oakland Estuary, Lake Merritt, or San Francisco Bay).
- The project is located in Downtown, which is defined in the LUTE of the General Plan as the area generally bounded by 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.

The Proposed Project is located Downtown (as defined by the City of Oakland) and would be up to 190 feet. Therefore, City of Oakland CEQA Thresholds of Significance Guidelines would require a wind analysis. A detailed wind study was prepared for the Proposed Project to evaluate its wind effects in accordance to these guidelines.

As shown in Attachment F, the wind study evaluated 62 locations in the Proposed Project's vicinity, primarily along sidewalks and public rights-of-way. Three conditions were studied: Existing, Existing plus Proposed Project, and Project plus Cumulative projects. For the purposes of the wind study, past, present, and reasonably foreseeable future projects considered in this analysis include buildings taller than 85 feet within an approximately 0.25-mile radius of the Proposed Project site because these taller buildings have the potential to affect wind conditions within this radius, as well as other projects proposed within the immediate vicinity, west of the Proposed Project site, as this is generally the direction from which the wind approaches the site. These projects include the following:

1. 459 23<sup>rd</sup> Street (six-story, mixed-use proposed project)
2. 585 22<sup>nd</sup> Street (five-story, residential proposed project)
3. 2100 Telegraph Avenue (Eastline Project – 2100 Telegraph)
4. 1911 Telegraph Avenue (Block 4 of Uptown Project, currently undeveloped)
5. 1900 Broadway (33-story, mixed-use proposed project)
6. 2015 Telegraph Avenue (14-story, mixed-use proposed project)

Under Existing wind conditions, none of the tested locations exceeded the City’s hazard wind threshold of 36 miles per hour for more than 1 hour during daylight hours during the year. Under the Existing plus Proposed Project, the wind study found that pedestrian wind levels would not exceed the hazard threshold. Additionally, in the Proposed Project plus Cumulative configuration, wind conditions would not exceed the hazard threshold.

Overall, it was determined that none of the locations tested for the Proposed Project are expected to exceed the City of Oakland’s wind hazard threshold of 36 miles per hour for more than 1 hour during daylight hours. This conclusion applies to the Existing, Existing plus Proposed Project, as well as the Proposed Project plus Cumulative configurations. As a result, the Proposed Project would not result in any significant impacts related to wind consistent with the findings of the Uptown EIRs.

### **Conclusion**

Based on an examination of the analysis, findings, and conclusions of the Uptown EIRs and the Program EIRs, implementation of the Proposed Project would not substantially increase the severity of significant aesthetic impacts identified in the Uptown EIRs or the Program EIRs, nor would it result in new significant impacts related to aesthetics, shadow or wind that were not identified in the Uptown EIRs or the Program EIRs. The Proposed Project would not be required to implement mitigation measures as identified in the Uptown EIRs; given recent changes in CEQA statutes, aesthetic impacts are no longer considered a significant CEQA impact for this type of project and as a result mitigation is not warranted. The Proposed Project would be required to comply with City of Oakland SCAs related to landscaping, street frontages, landscape maintenance, utility undergrounding, public right-of-way improvements, and lighting plans. For reference, these are: SCA-AES-1: Lighting (#18), SCA-AES-2: Graffiti Control (#16), and SCA-AES-3: Landscape Plan (#17). These SCAs are included in Attachment A: Standard Conditions of Approval and Mitigation Monitoring and Reporting Program.

**B. AIR QUALITY**

Would the project:	Equal or Less Severity of Impact Previously Identified in the Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
<p>a. During project construction result in average daily emissions of 54 pounds per day of ROG, NOX, or PM<sub>2.5</sub> or 82 pounds per day of PM<sub>10</sub>; during project operation result in average daily emissions of 54 pounds per day of ROG, NOX, or PM<sub>2.5</sub>, or 82 pounds per day of PM<sub>10</sub>; result in maximum annual emissions of 10 tons per year of ROG, NOX, or PM<sub>2.5</sub>, or 15 tons per year of PM<sub>10</sub>.</p>	■	□	□
<p>b. For new sources of Toxic Air Contaminants (TACs), during either project construction or project operation expose sensitive receptors to substantial levels of TACs under project conditions resulting in an increase in cancer risk level greater than 10 in one million, (b) a noncancer risk (chronic or acute) hazard index greater than 1.0, or (c) an increase of annual average PM<sub>2.5</sub> of greater than 0.3 microgram per cubic meter; or, under cumulative conditions, resulting in (a) a cancer risk level greater than 100 in a million, (b) a noncancer risk (chronic or acute) hazard index greater than 10.0, or (c) annual average PM<sub>2.5</sub> of greater than 0.8 microgram per cubic meter; or expose new sensitive receptors to substantial ambient levels of Toxic Air Contaminants (TACs) resulting in (a) a cancer risk level greater than 100 in a million, (b) a noncancer risk (chronic or acute) hazard index greater than 10.0, or (c) annual average PM<sub>2.5</sub> of greater than 0.8 microgram per cubic meter.</p>	■	□	□

**Previous CEQA Documents Findings**

Air quality was analyzed in the Program EIRs. The 1998 LUTE EIR identified mitigation measures to reduce the impact of criteria pollutant emissions from construction equipment and stationary sources to a less-than-significant level; however, the 1998 LUTE EIR found that increased criteria pollutant emissions from increased traffic, including reduced emissions after implementation of identified mitigation measures, would result in a significant and unavoidable impact. The 1998 LUTE EIR did not quantify or address cumulative health risks as such analysis was not required when that EIR was prepared. The

2010 Housing Element Update EIR identified significant impacts related to area and mobile sources of air pollutants and diesel particulate matter. However, these impacts were determined less than significant with the implementation of applicable SCAs. The 2011 Renewal Plan EIR identified effective SCAs to address less-than-significant effects regarding dust/PM<sub>10</sub>, odors, and consistency with the applicable Bay Area Clean Air Plan. The 2011 Renewal Plan EIR identified significant and unavoidable impacts regarding cumulative health risks after the consideration of SCAs.

The Uptown EIRs evaluated potential local and regional air quality impacts related to construction and operation of the Uptown Project, including development of Block 8 that includes the Proposed Project site and found:

- Fugitive dust emissions during construction would have a less-than-significant impact on local air quality with implementation of the dust-control measures described in Mitigation Measure AIR-1.
- Criteria pollutants emissions during operation would be significant and unavoidable related to regional air quality after implementation of traffic demand measures described in Mitigation Measure AIR-2.

All other impacts related to local and regional air quality were considered less than significant and no mitigation was required.

Since 2008 the City, based on BAAQMD guidance, has revised its CEQA thresholds with respect to air quality and global climate change. The new thresholds, however, do not represent “new information” as specifically defined under CEQA as the information used to help develop these thresholds, was known, or could have been known, when the Uptown EIRs and other addenda were being prepared, it is not “new information” as specifically defined under CEQA. To analyze if the Proposed Project would result in a new significant impact and/or a substantial increase in the severity of a previously identified significant impact, the BAAQMD’s current thresholds of significance adopted by the City of Oakland were used in conjunction with the BAAQMD’s current CEQA Air Quality Guidelines<sup>26</sup> to analyze air quality impacts.

The applicable mitigation measures along with the BAAQMD’s thresholds of significance and applicable SCAs are described below under the analysis that has been completed for the Proposed Project, and demonstrates that no new or greater impacts will result than analyzed in the Uptown EIRs and Program EIRs.

### **Project Analysis**

The Proposed Project is located in the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the BAAQMD. In June 2010, the BAAQMD adopted thresholds of

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<sup>26</sup> Bay Area Air Quality Management District (BAAQMD), 2012a. California Environmental Quality Act Air Quality Guidelines, May.

significance to assist lead agencies in the evaluation and mitigation of air quality impacts under CEQA.<sup>27</sup> The BAAQMD’s thresholds—which were utilized by the City of Oakland in establishing its own thresholds of significance—established levels at which emissions of ozone precursors (i.e., reactive organic gases [ROGs] and nitrogen oxides [NO<sub>x</sub>]), particulate matter (PM), carbon monoxide (CO), toxic air contaminants (TACs), and odors could cause significant air quality impacts). Two fractions of PM emissions are regulated based on aerodynamic resistance: those with diameters equal to or less than 10 microns (PM<sub>10</sub>) and those with diameters equal to or less than 2.5 microns (PM<sub>2.5</sub>). The BAAQMD’s thresholds of significance adopted by the City of Oakland that are used in this CEQA analysis are summarized in Table 5 below.

**TABLE 5 CITY’S THRESHOLDS OF SIGNIFICANCE**

<b>Impact Analysis</b>	<b>Pollutant</b>	<b>Threshold of Significance</b>
Regional Air Quality (Construction)	ROG	54 pounds/day (average daily emission)
	NO <sub>x</sub>	54 pounds/day (average daily emission)
	Exhaust PM <sub>10</sub>	82 pounds/day (average daily emission)
	Exhaust PM <sub>2.5</sub>	54 pounds/day (average daily emission)
	Fugitive dust (PM <sub>10</sub> and PM <sub>2.5</sub> )	Best management practices (BMPs)
Regional Air Quality (Operation)	ROG	54 pounds/day (average daily emission) 10 tons/year (maximum annual emission)
	NO <sub>x</sub>	54 pounds/day (average daily emission) 10 tons/year (maximum annual emission)
	Exhaust PM <sub>10</sub>	82 pounds/day (average daily emission) 15 tons/year (maximum annual emission)
	Exhaust PM <sub>2.5</sub>	54 pounds/day (average daily emission) 10 tons/year (maximum annual emission)
	Local Community Risks and Hazards (Operation and/or Construction)	Exhaust PM <sub>2.5</sub> (project)
TACs (project)		Cancer risk increase > 10 in one million Chronic hazard index > 1.0
Exhaust PM <sub>2.5</sub> (cumulative)		0.8 µg/m <sup>3</sup> (annual average)
TACs (cumulative)		Cancer risk > 100 in one million Chronic hazard index > 10.0

Notes: ppm = part per million; DPM = diesel particulate matter; µg/m<sup>3</sup> = micrograms per cubic meter  
Source: BAAQMD, 2010. Proposed Air Quality CEQA Thresholds of Significance. May 3.

*Criteria Pollutant Emissions (Criteria II.a)*

The Uptown EIRs utilized the BAAQMD’s 1999 thresholds of significance as discussed above and determined that the Uptown project’s operational impacts related to criteria air pollutants would be significant and unavoidable. The Uptown EIRs found that criteria pollutants emissions and diesel particulate matter (DPM) from the exhaust of construction

<sup>27</sup> Bay Area Air Quality Management District (BAAQMD), 2010. Proposed Air Quality CEQA Thresholds of Significance, May 3.

equipment would be less than significant. Emissions of fugitive dust from construction activities were found to be less-than-significant level with implementation of the dust-control measures recommended in Mitigation Measure AIR-1.

The BAAQMD currently recommends using the most recent version of CalEEMod to estimate construction and operational emissions of pollutants for a proposed project. CalEEMod uses widely accepted models for emission estimates combined with appropriate default data for a variety of land use projects that can be used if site-specific information is not available. The default data (e.g., type and power of construction equipment) are supported by substantial evidence provided by regulatory agencies and a combination of statewide and regional surveys of existing land uses. The primary input data used to estimate emissions associated with construction and operation of the Proposed Project are summarized in Table 6. A copy of the CalEEMod report for the Proposed Project, which summarizes the input parameters, assumptions, and findings, is provided in Attachment G.

**TABLE 6 SUMMARY OF LAND-USE INPUT PARAMETERS FOR CALEEMOD**

Land-Use Type	CalEEMod Land-Use Type	Units	Unit Amount
Residential	Apartments High Rise	Dwelling Units	230
Retail	High-Turnover (Sit-Down) Restaurant	Square Feet	5,304
Parking Garage	Enclosed Parking with Elevator	Square Feet	10,718

Notes: The Proposed Project footprint would be about 0.47 acres. The total gross floor area would be about 200,074 square feet and the parking garage would include 90 spaces.  
 Source: CalEEMod (Attachment G), 2016

Regional Criteria Pollutant Emissions from Construction

Project construction activities would generate criteria pollutant emissions that could adversely affect regional air quality. Construction activities for the Proposed Project would include demolition, grading, building construction, paving, and applications of architectural coatings. The primary pollutant emissions of concern during project construction would be ROG, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> from the exhaust of off-road construction equipment and on-road vehicles (worker vehicles, vendor trucks, and haul trucks). In addition, fugitive dust emissions of PM<sub>10</sub> and PM<sub>2.5</sub> would be generated by soil disturbance and demolition activities and fugitive ROG emissions would result from the application of architectural coatings and paving. Emissions of ROG, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> during project construction were estimated using the CalEEMod input parameters summarized in Table 7.



**TABLE 7 SUMMARY OF CONSTRUCTION INPUT PARAMETERS FOR CALEEMOD**

<b>CalEEMod Input Category</b>	<b>Construction Assumptions and Changes to Default Data</b>
Construction Phase	The default construction duration was modified to 565 work days (about 26 months) with work scheduled to begin in mid-2017. Since there is no existing vegetation that needs to be removed prior to construction, a site preparation phase was not included in the analysis.
Material Movement	Approximately 3,000 cubic yards of soil export is anticipated.
Demolition	Demolition debris from the existing 20,814 square feet of parking lot (about 377 tons) is expected to be hauled off-site.

Note: Default CalEEMod data used for all other parameters not described.  
Source: CalEEMod (Attachment G), 2016

In accordance with SCA-AIR-1: Construction-Related Air Pollution Controls (Dust and Equipment Emissions) (#19), the evaluation assumed that all off-road diesel equipment would be equipped with engines certified to meet the California Air Resources Board’s (CARB’s) Tier 4 emission standards, which have incorporated best available control technologies into the engine design to reduce emissions of ROG, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>.

The total emissions estimated during construction were averaged over the total estimated working days (565 days) and compared to the BAAQMD’s thresholds of significance as shown in Table 8. The Proposed Project’s estimated emissions for ROG, NO<sub>x</sub>, and exhaust PM<sub>10</sub> and PM<sub>2.5</sub> both before and after applying the Tier 4 engine requirements under SCA-AIR-1: Construction-Related Air Pollution Controls (Dust and Equipment Emissions) (#19) were below the applicable thresholds. Therefore, construction of the Proposed Project would not result in any significant impacts on regional air quality. As a result, the impact of the Proposed Project would be less than the impacts projected in the Uptown EIRs and no mitigation would be required.

**TABLE 8 ESTIMATED UNMITIGATED CONSTRUCTION EMISSIONS (POUNDS PER DAY)**

<b>Emissions Scenario</b>	<b>ROG</b>	<b>NO<sub>x</sub></b>	<b>Exhaust</b>		<b>Fugitive Dust</b>	
			<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
Emissions without SCA-AIR-1	6.5	14.6	0.7	0.7	1.4	0.4
Emissions with SCA-AIR-1	5.6	4.5	0.05	0.05	---	---
BAAQMD’s Thresholds of Significance	54	54	82	54	BMPs	BMPs
Exceed Quantitative Threshold?	No	No	No	No	---	---

Notes: BMPs = best management practices  
 --- = not applicable  
 Reduced fugitive dust emissions from implementation of dust-control measures under Mitigation Measures AIR-1 and SCA-AIR-1 cannot be readily quantified.  
 Source: CalEEMod (Attachment G), 2016

Neither BAAQMD, nor the City, has a quantitative threshold of significance for fugitive dust  $PM_{10}$  and  $PM_{2.5}$  emissions; however, the BAAQMD and the City considers implementation of best management practices (BMPs) to control dust during construction sufficient to reduce potential impacts to a less-than-significant level. Mitigation Measure AIR-1 in the Uptown EIRs details measures to reduce dust generated impacts and satisfy the BAAQMD's requirement for BMPs. However, since certification of the Uptown EIRs, the City has adopted updated SCAs that are applicable to all development projects and SCA-AIR-1: Construction-Related Air Pollution Controls (Dust and Equipment Emissions) (#19) is functionally equivalent to or more protective than most of Uptown EIR Mitigation Measure AIR-1. As a result, Mitigation AIR-1 has been modified to only include the portion that is not covered in SCA AIR-1. The mitigation measure requires the project to notify all neighboring properties within 500 feet of property lines regarding complaint procedures for dust control. This would be in addition to posting a large on-site sign with the contact name and phone number of the project complaint manager for dust control, as required by SCA-AIR-1. Implementation of SCA-AIR-1 and a portion of Mitigation Measure AIR-1, as detailed in Attachment A: Standard Conditions of Approval and Mitigation Monitoring and Reporting Program, would ensure no significant impacts related to dust generated during project construction would occur.

In addition to the emissions controls required under SCA-AIR-1: Construction-Related Air Pollution Controls (Dust and Equipment Emissions) (#19), the Proposed Project must comply with all applicable laws and regulations regarding demolition of existing structures on the Proposed Project site that could potentially contain asbestos materials as described under SCA-AIR-2: Asbestos in Structures (#23). Since naturally-occurring asbestos has not been mapped in the vicinity of the Proposed Project, the dust mitigation measures for asbestos described under the City's SCA #24: Naturally-Occurring Asbestos would not apply to the Proposed Project. With implementation of SCA-AIR-1, and SCA-AIR-2, construction of the Proposed Project would not substantially increase the severity of significant impacts identified in the Uptown EIRs, nor would it result in new significant impacts related to criteria pollutant emissions that were not identified in the Uptown EIRs.

#### Regional Criteria Pollutant Emissions from Operation

Project operation would generate criteria pollutant emissions that could potentially affect regional air quality. The primary pollutant emissions of concern during project operation would be ROG,  $NO_x$ , and exhaust  $PM_{10}$ , and  $PM_{2.5}$  from mobile sources, energy use, area sources (e.g., consumer products, architectural coatings, and landscape maintenance equipment), and stationary sources. Based on the Proposed Project construction schedule, operation was assumed to begin as early as 2019; this is a conservative assumption because statewide vehicle emission standards are required to improve over time in accordance with the Pavley (Assembly Bill (1432) and Low-Emission Vehicle regulations (Title 13, California Code of Regulations, Section 1961.2). Additional project-specific information used to calculate operation emissions in CalEEMod, including changes to default data, is summarized in Table 9.

**TABLE 9 SUMMARY OF OPERATION INPUT PARAMETERS FOR CALEEMOD**

CalEEMod Input Category	Operation Assumptions and Changes to Default Data
Vehicle Trips	According to the Proposed Project traffic analysis by Fehr & Peers, <sup>a</sup> residential uses would generate about 3.80 weekday trips/dwelling-unit/day and project retail uses would generate about 72.5 weekday trips/1,000 ft <sup>2</sup> /day. These trip estimates account for a 43 percent trip reduction based on the City of Oakland’s Transportation Impact Study Guidelines data for development in an urban environment within 0.5 miles of a BART Station. Similarly, the default weekend trip rates were reduced by 43 percent.
Stationary Sources	In accordance with the California Building Code, an emergency generator would be required for the Proposed Project. It was assumed that a maximum 1,000 horsepower diesel generator would be used for non-emergency operation up to 50 hours per year (for routine testing and maintenance).

Notes: ft<sup>2</sup> = square feet  
 Default CalEEMod data used for all other parameters not described.  
<sup>a</sup>Fehr & Peer, 2106. 2016 Telegraph Avenue – Trip Generation and Study Intersection Selection. August 30.  
 Source: CalEEMod (Attachment G), 2016

The City of Oakland has adopted a Green Building Ordinance for private development projects. In accordance with the Green Building Ordinance, the Proposed Project must implement mandatory measures from the statewide CALGreen Code and complete a Green Building Compliance Checklist (e.g., LEED or GreenPoint Rated).<sup>28</sup> While implementation of the CALGreen Code could potentially result in additional reductions in energy use, these potential reductions are not known at this time and therefore were not included in the analysis to estimate unmitigated emissions of criteria pollutants for the Proposed Project.

The Uptown EIR Mitigation Measure AIR-2 requires the use of transportation control measures recommended by the BAAQMD. However, since certification of the Uptown EIRs, the BAAQMD has adopted the Bay Area 2010 Clean Air Plan (2010 CAP), which includes transportation control measures that supersede the measures previously recommended by BAAQMD under Mitigation Measures AIR-2. The transportation control measures in the 2010 CAP are strategies to reduce vehicle trips, use, miles traveled, idling, or traffic congestion for the purpose of reducing vehicle emissions. The City’s SCA-TRANS-1: Transportation and Parking Demand Management (#71), requires implementation of a Transportation and Parking Demand Management (TDM) Plan that includes TDM measures functionally equivalent to those presented in the 2010 CAP. As a result, Mitigation Measure AIR-2 has been superseded by SCA-TRANS-1 and applicable TDM measures have been incorporated in the traffic analysis for the Proposed Project.

The estimated maximum annual emissions and average daily emissions during the operational phase of the Proposed Project are compared to the BAAQMD’s thresholds of

<sup>28</sup> Rating system and checklist determined by City of Oakland Planning Department based on square footage of each land use.

significance in Table 10. The estimated unmitigated emissions for ROG, NO<sub>x</sub>, and exhaust PM<sub>10</sub> and PM<sub>2.5</sub> are below the BAAQMD’s thresholds of significance and, therefore, the Proposed Project would have a less-than-significant impact on regional air quality. As a result, operation of the Proposed Project would not substantially increase the severity of significant impacts identified in the Uptown EIRs, nor would it result in new significant impacts related to criteria pollutant emissions during construction that were not identified in the Uptown EIRs.

**TABLE 10 ESTIMATED UNMITIGATED OPERATION EMISSIONS**

Emissions Scenario	Maximum Annual Emissions (Tons)				Average Daily Emissions (Pounds)			
	ROG	NO <sub>x</sub>	Exhaust	Exhaust	ROG	NO <sub>x</sub>	Exhaust	Exhaust
			PM <sub>10</sub>	PM <sub>2.5</sub>			PM <sub>10</sub>	PM <sub>2.5</sub>
Area	0.93	0.02	0.01	0.01	5.08	0.11	0.05	0.05
Energy	0.02	0.17	0.01	0.01	0.10	0.90	0.07	0.07
Mobile	0.38	2.33	0.02	0.02	2.11	12.8	0.09	0.09
Generator	0.04	0.18	0.01	0.01	0.22	1.01	0.03	0.03
Total Project Emissions	1.4	2.7	<0.1	<0.1	7.5	14.8	0.2	0.2
Thresholds of Significance	10	10	15	10	54	54	82	54
Exceed Threshold?	No	No	No	No	No	No	No	No

Source: CalEEMod (Attachment G).

*Toxic Air Contaminants (Criteria II.b)*

The Uptown EIRs found that health risk impacts to nearby sensitive receptors would be less than significant because operations would not generate substantial TAC emissions and construction emissions are temporary. Project construction would generate DPM and PM<sub>2.5</sub> emissions from off-road diesel construction equipment and on-road vehicles (worker, vendor, and haul trucks) accessing the Proposed Project site. Similarly, project operations could generate DPM and PM<sub>2.5</sub> emissions from testing and maintenance of an emergency generator. DPM and PM<sub>2.5</sub> from diesel-powered engines are a complex mixture of soot, ash particulates, metallic abrasion particles, volatile organic compounds, and other components that can penetrate deeply into the lungs and contribute to a range of health problems. In 1998, CARB identified particulate matter from diesel-powered engines as a TAC based on its potential to cause cancer and other adverse health effects.<sup>29</sup>

<sup>29</sup> California Air Resources Board (CARB), 1998. Initial Statement of Reasons for Rulemaking; Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant, June.

The emissions of DPM and PM<sub>2.5</sub> from diesel exhaust during project construction and operation could pose a health risk to nearby sensitive receptors. The term “sensitive receptor” refers to a location where individuals are more susceptible to poor air quality. Sensitive receptors include schools, convalescent homes, and hospitals because the very young, the old, and the infirm are more susceptible than the rest of the public to air-quality-related health problems. Residential areas are also considered sensitive to poor air quality because people are often at home for extended periods, thereby increasing the duration of exposure to potential air contaminants. The BAAQMD recommends evaluating the potential health risks to sensitive receptors within 1,000 feet of a proposed project that could be exposed to TACs, such as DPM and PM<sub>2.5</sub>.

#### Generation of TAC Emissions during Construction

The annual average concentrations of DPM and exhaust PM<sub>2.5</sub> concentrations during project construction were estimated within 1,000 feet of the Proposed Project site using the U.S. Environmental Protection Agency’s (U.S. EPA) Industrial Source Complex Short Term (ISCST3) air dispersion model. For this analysis, emissions of exhaust PM<sub>10</sub> from off-road equipment were modeled to estimate concentrations of DPM at nearby sensitive receptors. The exhaust from off-road equipment on the Proposed Project site was represented in the ISCST3 model as a series of volume sources with a release height of 5 meters to represent the mid-range of the expected plume rise from frequently used construction equipment. Daily emissions from off-road construction equipment were assumed to occur over an 8-hour period between 8:00 a.m. and 4:00 p.m. between Monday and Friday. The concentrations of DPM and exhaust PM<sub>2.5</sub> at nearby sensitive receptors were estimated based on emissions from off-road equipment on the Proposed Project site. While on-road vehicles accessing the Proposed Project site (worker vehicles, vendor trucks, and haul trucks) would also generate DPM and exhaust PM<sub>2.5</sub>, these emissions account for less than one percent of the total unmitigated emissions at the site and, therefore, were not included in the analysis. The input parameters and assumptions used for estimating on-site emission rates are included in Attachment G.

A uniform grid of receptors spaced 10 meters apart with receptor heights of 1.5 meters was encompassed around the development area as a means of developing isopleths (i.e., concentration contours) that illustrate the dispersion pattern from the various emission sources. The ISCST3 model input parameters included 1 year of BAAQMD meteorological data from the Oakland STP weather station located about 2.5 miles northwest of the Proposed Project.

The air dispersion model was used to estimate annual average concentrations of DPM and PM<sub>2.5</sub> both before and after applying the Tier 4 engine requirements under SCA-AIR-1: Construction-Related Air Pollution Controls (Dust and Equipment Emissions) (#19). Based on the results of the air dispersion model (Attachment G), the maximally exposed individual resident (MEIR) is in a building providing low income housing, located about

220 feet northwest of the Proposed Project boundary. The annual average concentration of DPM and PM<sub>2.5</sub> at the MEIR are summarized in Table 11.

**TABLE 11 ANNUAL AVERAGE CONCENTRATIONS AT MEIR DURING PROJECT CONSTRUCTION**

Emissions Scenario	Annual Average Concentration (µg/m <sup>3</sup> )	
	DPM	Exhaust PM <sub>2.5</sub>
Construction without SCA-AIR-1	0.062	0.057
Construction with SCA-AIR-1	0.004	0.004

Note: µg/m<sup>3</sup> = micrograms per cubic meter  
 Source: BASELINE, 2016 (Attachment G).

In accordance with guidance from the BAAQMD<sup>30</sup> and the Office of Environmental Health Hazard Assessment (OEHHA),<sup>31</sup> a health risk assessment was conducted to calculate the incremental increase in cancer risk and chronic hazard index (HI) to sensitive receptors from DPM emissions during construction. The acute HI for DPM was not calculated because an acute reference exposure level has not been approved by OEHHA and CARB, and the BAAQMD does not recommend analysis of acute non-cancer health hazards from construction activity. The annual average concentration of DPM at the MEIR was used to conservatively assess potential health risks to nearby sensitive receptors.

The incremental increase in cancer risk from on-site DPM emissions during construction was assessed for an infant from the third trimester and through his/her first 2 years exposed to DPM at the MEIR location. This exposure scenario represents the most sensitive individual who could be exposed to adverse air quality conditions in the vicinity of the Proposed Project. It was also assumed that the MEIR would be exposed to an annual average DPM concentration over the entire estimated duration of construction, which is about 2.25 years; therefore, this analysis is conservative. The input parameters and results of the health risk assessment are included in Attachment G.

Estimates of the health risks at the MEIR from DPM and PM<sub>2.5</sub> concentrations during project construction, both before and after applying the Tier 4 engine requirements under SCA-AIR-1: Construction-Related Air Pollution Controls (Dust and Equipment Emissions) (#19), are summarized and compared to the BAAQMD’s thresholds of significance in Table 12. The estimated chronic HI for DPM and annual average PM<sub>2.5</sub> concentration from construction emissions without SCA-AIR-1 were below the BAAQMD’s thresholds of

<sup>30</sup> Bay Area Air Quality Management District (BAAQMD), 2012b. Recommended Methods for Screening and Modeling Local Risks and Hazards, May.

<sup>31</sup> OEHHA, 2015. Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments, February.

significance; however, the excess cancer risk exceeded the BAAQMD’s thresholds of significance without SCA-AIR-1. Implementation of SCA-AIR-1 would reduce the excess cancer risk by about 93 percent and the risk level would not exceed the BAAQMD’s threshold of significance. Therefore, the Proposed Project’s emissions of DPM and PM<sub>2.5</sub> during construction would have a less-than-significant impact on nearby sensitive receptors. Overall, construction of the Proposed Project would not substantially increase the severity of significant impacts identified in the Uptown EIRs, nor would it result in new significant impacts related to the generation of TAC emissions that were not identified in the Uptown EIRs.

Generation of TAC Emissions During Operation

To operate an emergency generator, the Proposed Project would be required to comply with the BAAQMD’s permit requirements for a stationary source. In accordance with BAAQMD’s Regulation 2-5, New Source Review of Toxic Air Contaminants, the BAAQMD does not issue permits for stationary sources that would result in an excess cancer risk greater than 10 in one million or an acute or chronic HI greater than 1.0. These health standards are also enforced through SCA-AIR-3: Stationary Sources of Air Pollution (Toxic Air Contaminants) (#21).

**TABLE 12 HEALTH RISKS AT MEIR DURING PROJECT CONSTRUCTION**

Emissions Scenario	Diesel Particulate Matter		Exhaust PM <sub>2.5</sub>
	Cancer Risk (per million)	Chronic Hazard Index	Annual Average Concentration (µg/m <sup>3</sup> )
Construction without SCA-AIR-1	<b>18.0</b>	0.01	0.06
Construction with SCA-AIR-1	1.3	<0.01	<0.01
BAAQMD's Thresholds of Significance	10	1	0.3

Note: µg/m<sup>3</sup> = micrograms per cubic meter  
**Bold and shaded font** indicates exceedance of threshold.  
 Source: BASELINE, 2016 (Attachment G).

Conservatively assuming the Proposed Project’s emergency generator would result in the BAAQMD’s maximum permissible excess cancer risk of 10 in one million due to emissions of DPM, the BAAQMD’s Risk and Hazards Emissions Screening Calculator (Beta Version)<sup>32</sup> was used to estimate the equivalent screening-level health risks values for chronic HI and annual average PM<sub>2.5</sub> concentrations. The calculator applies similar methods used to establish the emission threshold levels for TACs reported in the BAAQMD’s Regulation 2-5. The health risk screening values from the Proposed Project’s emergency

<sup>32</sup> Bay Area Air Quality Management District (BAAQMD), 2016. Risk and Hazards Emissions Screening Calculator (Beta Version).

generator were then refined based on the distance from the Proposed Project to the MEIR using the BAAQMD’s Diesel Internal Combustion Engine Distance Multiplier Tool.<sup>33</sup> The conservative screening-level health risks to sensitive receptors associated with operation of the emergency generator are summarized and compared to the BAAQMD’s thresholds of significance in Table 13. The estimated excess cancer risk and chronic HI for DPM and the annual average PM<sub>2.5</sub> concentration from operation of the emergency generator were below the BAAQMD’s thresholds of significance; therefore, the Proposed Project’s emissions of DPM and PM<sub>2.5</sub> during operation of an emergency generator would have a less-than-significant impact on nearby sensitive receptors. As a result, operation of the Proposed Project would not substantially increase the severity of significant impacts identified in the Uptown EIRs, nor would it result in new significant impacts related to the generation of TAC emissions that were not identified in the Uptown EIRs.

**TABLE 13 HEALTH RISKS AT MEIR FROM OPERATION OF AN EMERGENCY GENERATOR AT THE PROJECT SITE**

Emissions Scenario	Diesel Particulate Matter		Exhaust PM <sub>2.5</sub> Annual Average Concentration (µg/m <sup>3</sup> )
	Cancer Risk (per million)	Chronic Hazard Index	
Emergency Generator	4.1	<0.1	0.01
BAAQMD’s Thresholds	10	1.0	0.3
Threshold Exceedance?	No	No	No

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

Source: BAAQMD, 2016. Risk and Hazards Emissions Screening Calculator (Beta Version).

Cumulative TAC Emissions

In addition to a project’s individual TAC emissions during construction and operation, the BAAQMD recommends evaluating the potential cumulative health risks to sensitive receptors from existing and reasonably foreseeable future sources of TACs. The BAAQMD’s online screening tools were used to provide conservative estimates of how much existing and foreseeable future TAC sources would contribute to cancer risk, HI, and PM<sub>2.5</sub> concentrations at the MEIR. The individual health risks associated with each source are summed to find the cumulative impact at the Proposed Project site.<sup>34</sup>

Based on the BAAQMD’s Stationary Source Screening Analysis Tool,<sup>35</sup> six existing stationary sources of TAC emissions were identified within 1,000 feet of the MEIR

<sup>33</sup> Bay Area Air Quality Management District (BAAQMD), 2012e. Diesel Internal Combustion Engine Distance Multiplier Tool, June 13.

<sup>34</sup> Bay Area Air Quality Management District (BAAQMD), 2012b. Recommended Methods for Screening and Modeling Local Risks and Hazards, May.

<sup>35</sup> Bay Area Air Quality Management District (BAAQMD), 2012c. Stationary Source Screening Analysis Tool, May 30.



(Table 14 and Figure 11). Preliminary health risk screening values at the MEIR from the stationary sources were determined using the Stationary Source Screening Analysis Tool.

According to the BAAQMD, one of the stationary sources (BAAQMD Plant G9132 on Table 14 and Figure 11) has been closed and does not pose potential health risks or hazards to nearby sensitive receptors. The BAAQMD's Gasoline Dispensing Facility Distance Multiplier Tool<sup>36</sup> was used to refine the screening values associated with two of the existing stationary sources to represent the attenuated health risks that can be expected with increasing distance from gas stations.

Based on review of 2015 average annual daily traffic (AADT) volumes forecasted in Alameda County by Kalibrate Technologies,<sup>37</sup> there are two major roadways with an AADT volume greater than 10,000 vehicles per day within 1,000 feet of the Proposed Project site (Table 14 and Figure 11). The maximum potential health risks at the MEIR from mobile emissions along these major roadways were estimated using the BAAQMD's Roadway Screening Analysis Calculator.<sup>38</sup>

In addition to existing TAC sources and the Proposed Project, there are six potential high-rise building developments proposed within 1,000 feet of the MEIR in the near future that could include the operation of emergency diesel generators (Table 14 and Figure 11). The BAAQMD does not issue permits for stationary sources that result in an excess cancer risk greater than 10 in one million or a chronic HI greater than 1.0. Conservatively assuming each proposed generator would result in a maximum excess cancer risk of 10 in one million due to emissions of DPM, the BAAQMD's Risk and Hazards Emissions Screening Calculator (Beta Version) was used to estimate the equivalent screening-level health risks values for chronic HI and annual average PM<sub>2.5</sub> concentrations. The health risk screening values from the future generators were then refined based on the distance from each source to the MEIR using the BAAQMD's Diesel Internal Combustion Engine Distance Multiplier Tool.<sup>39</sup>

Estimates of the cumulative health risks at the MEIR are summarized and compared to the BAAQMD's cumulative thresholds of significance in Table 14. The excess cancer risk and chronic HI from DPM emissions and annual average PM<sub>2.5</sub> concentrations at the MEIR were below the BAAQMD's cumulative thresholds both before and after applying the City's Tier 4 engine requirements to control construction emissions under SCA-AIR-1: Construction-Related Air Pollution Controls (Dust and Equipment Emissions) (#19). As discussed above, the use of Tier 4 engines would reduce DPM emissions and associated

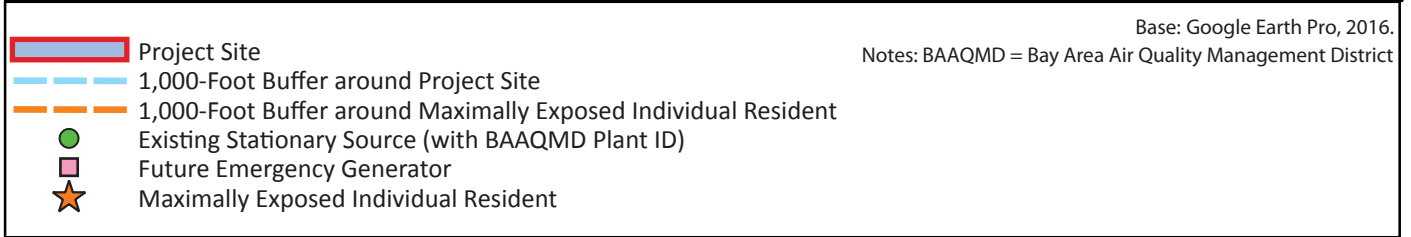
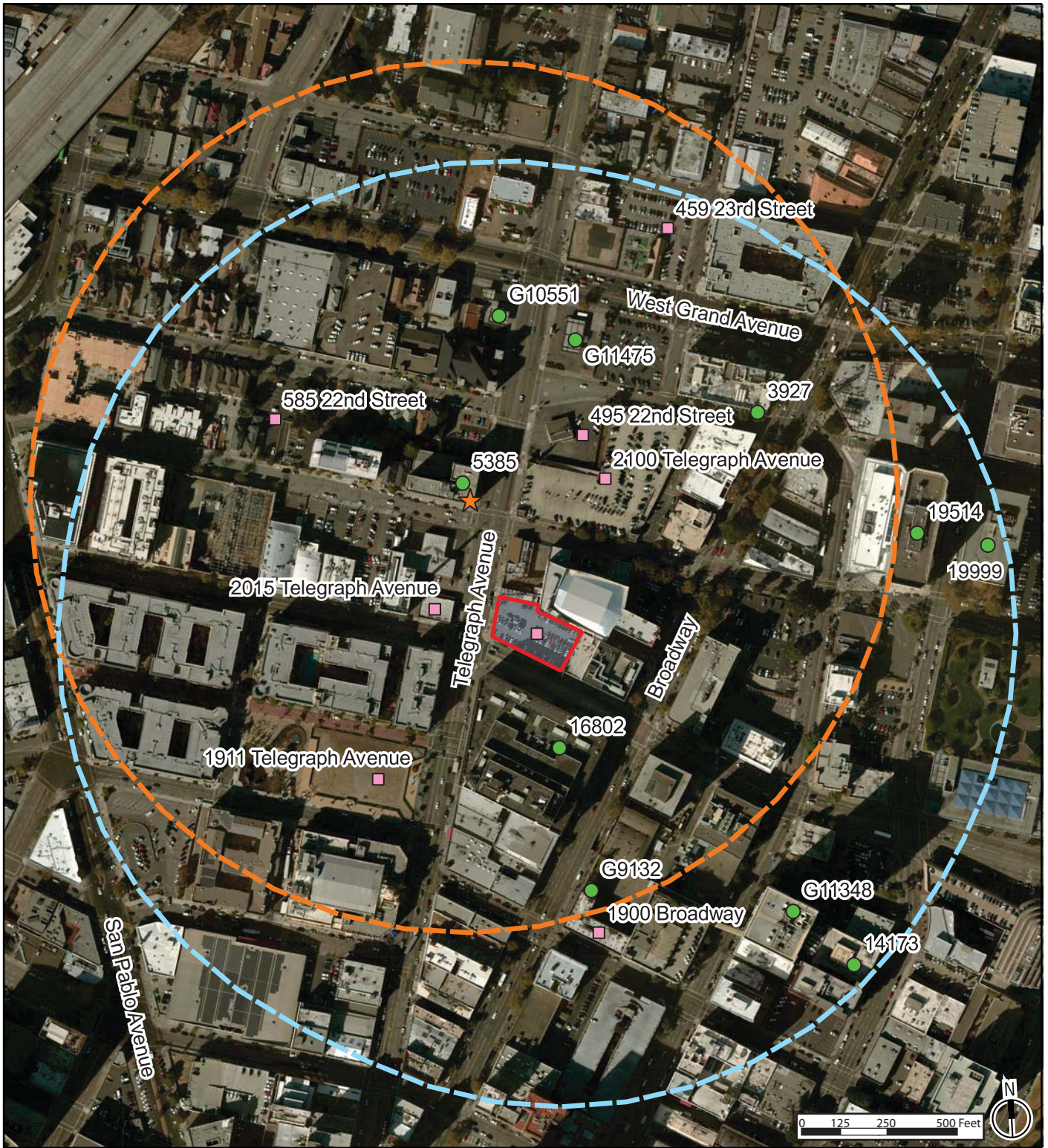
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<sup>36</sup> Bay Area Air Quality Management District (BAAQMD), 2012d. Gasoline Dispensing Facility Distance Multiplier Tool, June 13.

<sup>37</sup> Kalibrate Technologies, 2016. Current Year Estimates TrafficMetrix Data. Comma-separated value file of 2015 average annual daily traffic counts estimated in Alameda County.

<sup>38</sup> Bay Area Air Quality Management District (BAAQMD), 2015. Roadway Screening Analysis Calculator, April 16.

<sup>39</sup> Bay Area Air Quality Management District (BAAQMD), 2012e. Diesel Internal Combustion Engine Distance Multiplier Tool, June 13.



Source: brick, 2016

**TABLE 14 SUMMARY OF CUMULATIVE HEALTH RISKS AT THE MEIR**

Source	Source Type	Cancer Risk (10 <sup>6</sup> )	Chronic Hazard Index	PM <sub>2.5</sub> (µg/m <sup>3</sup> )
<b>Project Construction</b>				
Emissions without SCA-AIR-1	Diesel Exhaust	18.0	0.01	0.18
Emissions with SCA-AIR-1	Diesel Exhaust	1.3	<0.01	<0.01
Emergency Generator	Diesel Generator	4.1	<0.01	0.01
<b>Future Stationary Sources<sup>a</sup></b>				
2015 Telegraph Avenue	Diesel Generator	3.1	<0.01	0.01
1911 Telegraph Avenue	Diesel Generator	0.8	<0.01	<0.01
2100 Telegraph Avenue	Diesel Generator	2.5	<0.01	<0.01
585 22 <sup>nd</sup> Street	Diesel Generator	1.2	<0.01	<0.01
495 22 <sup>nd</sup> Street	Diesel Generator	2.8	<0.01	0.01
459 23 <sup>rd</sup> Street	Diesel Generator	0.6	<0.01	<0.01
<b>Existing Stationary Sources</b>				
Oakland Valero Service Center (G10551) <sup>b</sup>	Gas Station	1.0	<0.01	NA
Chevron Inc. (G11475) <sup>b</sup>	Gas Station	0.9	<0.01	NA
Weatherford BMW (5385)	Not Reported	<0.1	<0.01	0.04
Hanzel Auto Body Works (3927)	Not Reported	<0.1	<0.01	<0.01
Sears, #1039 (16802)	Not Reported	<0.1	<0.01	0.01
Kaiser Foundation Health Plan (G9132) <sup>c</sup>	Gas Station	NA	NA	NA
<b>Existing Mobile Sources</b>				
Northgate Avenue (21,811 AADT)	Major Roadway	2.0	NA	0.04
West Grand Avenue (21,456 AADT)	Major Roadway	1.7	NA	0.03
<b>Cumulative Health Risks without SCA-AIR-1</b>		39	<0.1	0.3
<b>Cumulative Health Risks with SCA-AIR-1</b>		22	<0.1	0.1
<b>City of Oakland's Cumulative Thresholds</b>		100	10.0	0.8
<b>Threshold Exceedance?</b>		No	No	No

Notes: µg/m<sup>3</sup> = micrograms per cubic meter; NA = not applicable

<sup>a</sup> Screening-level health risk values for potential generators estimated using BAAQMD's Risk and Hazards Emissions Screening Calculator (Beta Version) and adjusted at the MEIR using the BAAQMD's Diesel Internal Combustion Engine Distance Multiplier Tool.

<sup>b</sup> Screening values refined using BAAQMD's Gasoline Dispensing Facility Distance Multiplier Tool.

<sup>c</sup> According to the BAAQMD, the facility is closed.

Sources:

Health risk screening values derived from the BAAQMD's online Tools and Methodologies.

<http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools>, accessed November 2016.

Average annual daily traffic (AADT) volumes reported by Kalibrate Technologies, 2016.

health risks by about 93 percent during construction. Therefore, the cumulative impact to nearby sensitive receptors from TAC emissions during construction and operation of the Proposed Project would be less than significant. Overall, construction and operation of the Proposed Project would not substantially increase the cumulative severity of significant impacts identified in the Uptown EIRs, nor would it result in new significant impacts related to the generation of TAC emissions that were not identified in the Uptown EIRs.

#### Exposure to Toxic Air Contaminants

Future residents on the Proposed Project site could be exposed to existing and reasonably foreseeable future sources of TAC emissions. While CEQA does not require the analysis or mitigation of potential effects that the existing environment may have on a project (with certain exceptions), an analysis of the potential effects that existing TAC sources may have on the future receptors at the Proposed Project site was performed to provide information to the public and decision-makers. The health risks posed to the closest residential receptor on the Proposed Project site to each TAC source were considered to conservatively analyze cumulative health risks to all future receptors on the Proposed Project site.

The approach for assessing the cumulative health risks to future sensitive receptors on the Proposed Project site was the same as the methods described above to determine potential health risks to existing sensitive receptors. Existing sources of TAC emissions identified within 1,000 feet of the Proposed Project included ten stationary sources and two mobile sources. Reasonably foreseeable future sources of TAC emissions included eight potential high-rise building developments (including the Proposed Project site) that could operate emergency diesel generators (Table 15 and Figure 11).

As shown in Table 15, the estimated cumulative excess cancer risk and chronic HI from DPM emissions and annual average  $PM_{2.5}$  concentrations at the Proposed Project site would be less than the BAAQMD's cumulative threshold of significance. Therefore, the Proposed Project would not be required to implement health risk reduction measures under City SCA #20: Exposure to Air Pollution (Toxic Air Contaminants) and the potential health impacts to new receptors at the Proposed Project site would be less than significant. Overall, siting new receptors on the Proposed Project site would not substantially increase the severity of significant impacts identified in the Uptown EIRs, nor would it result in new significant impacts related to TAC exposure.

#### **Conclusion**

Based on an examination of the analysis and the findings and conclusions of the Uptown EIRs, implementation of the Proposed Project would not substantially increase the severity of significant impacts identified in the Uptown EIRs, nor would it result in new significant impacts related to construction and operational air pollutant emissions that were not identified in the Uptown EIRs.

**TABLE 15 SUMMARY OF CUMULATIVE HEALTH RISKS TO FUTURE PROJECT RECEPTORS**

Source	Source Type	Cancer Risk (10 <sup>6</sup> )	Chronic Hazard Index	PM <sub>2.5</sub> (µg/m <sup>3</sup> )
<b>Proposed Project</b>				
Emergency Generator	Diesel Generator	10.0	<0.01	0.02
<b>Future Stationary Sources<sup>a</sup></b>				
2015 Telegraph Avenue	Diesel Generator	6.4	<0.01	0.01
1911 Telegraph Avenue	Diesel Generator	1.6	<0.01	<0.01
2100 Telegraph Avenue	Diesel Generator	2.2	<0.01	<0.01
585 22 <sup>nd</sup> Street	Diesel Generator	0.9	<0.01	<0.01
495 22 <sup>nd</sup> Street	Diesel Generator	1.6	<0.01	<0.01
459 23 <sup>rd</sup> Street	Diesel Generator	0.4	<0.01	<0.01
1900 Broadway	Diesel Generator	0.9	<0.01	<0.01
<b>Existing Stationary Sources</b>				
Oakland Valero Service Center (G10551) <sup>b</sup>	Gas Station	0.5	<0.01	NA
Chevron Inc. (G11475) <sup>b</sup>	Gas Station	0.5	<0.01	NA
Weatherford BMW (5385)	Not Reported	<0.1	<0.01	0.04
Hanzel Auto Body Works (3927)	Not Reported	<0.1	<0.01	<0.01
Oakland Center 21 (19514) <sup>c</sup>	Diesel Pump and Diesel Generator	1.7	<0.01	0.01
Pacific Bell Telephone Co (19999) <sup>c</sup>	Diesel Pump	0.6	<0.01	<0.01
Pacific Gas and Electric (14173) <sup>d</sup>	Diesel Generator	1.2	<0.01	<0.01
Kaiser Permanente (G11348) <sup>e</sup>	Not Reported	NA	NA	NA
Sears, #1039 (16802)	Not Reported	<0.1	<0.01	0.01
Kaiser Foundation Health Plan (G9132) <sup>e</sup>	Gas Station	NA	NA	NA
<b>Existing Mobile Sources</b>				
West Grand Avenue (21,456 AADT)	Major Roadway	1.2	<0.01	0.02
San Pablo Avenue (17,674 AADT)	Major Roadway	1.4	<0.01	0.03
<b>Cumulative Health Risks</b>		31	<0.1	0.1
<b>BAAQMD's Thresholds of Significance</b>		100	10.0	0.8
<b>Threshold Exceedance?</b>		No	No	No

Notes: µg/m<sup>3</sup> = micrograms per cubic meter; NA = not applicable

<sup>a</sup> Screening-level health risk values for potential generators estimated using BAAQMD's Risk and Hazards Emissions Screening Calculator (Beta Version).

<sup>b</sup> Screening values refined using BAAQMD's Gasoline Dispensing Facility Distance Multiplier Tool.

<sup>c</sup> Updated screening values provided by BAAQMD using the BAAQMD's Station Source Inquiry Form.

<sup>d</sup> Screening values refined using BAAQMD's Diesel Internal Combustion Engine Distance Multiplier Tool.

<sup>e</sup> According to the BAAQMD, the facility is closed.

Sources:

Health risk screening values derived from the BAAQMD's online Tools and Methodologies.

<http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools>, accessed November 2016.

Average annual daily traffic (AADT) volumes reported by Kalibrate Technologies (2016).

Further, with implementation of the City’s SCAs, the Proposed Project would not result in any significant project or cumulative impacts related to air quality. Several SCAs would be applicable including: SCA-AIR-1: Construction-Related Air Pollution Controls (Dust and Equipment Emissions) (#19), SCA-AIR-2: Asbestos in Structures (#23), SCA-AIR-3: Stationary Sources of Air Pollution (Toxic Air Contaminants) (#21), and SCA-TRANS-1: Transportation and Parking Demand Management (#71). The Proposed Project would also be required to comply with a portion of Mitigation Measure AIR-1 as described above. These SCAs with the addition of a portion of Mitigation Measure AIR-1 are included in Attachment A, Standard Conditions of Approval and Mitigation Monitoring and Reporting Program.

**C. BIOLOGICAL RESOURCES**

Would the project:	Equal or Less Severity of Impact Previously Identified in the Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
<p>a. 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 (CDFW) and Wildlife or U.S. Fish and Wildlife Service (USFWS); 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 CDFW or USFWS; 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; or 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.</p>	■	□	□
<p>b. Fundamentally conflict with the City of Oakland Tree Protection Ordinance (Oakland Municipal Code Chapter 12.36) by removal of protected trees under certain circumstances; or fundamentally conflict with the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16) intended to protect biological resources.</p>	■	□	□

**Previous CEQA Documents Findings**

Special-status species, wildlife corridors, riparian and sensitive habitat, wetlands, and tree and creek restoration were analyzed in the Program EIRs, which found that effects to these topics would be less than significant. The 2011 Renewal Plan EIR and the 2010 Housing Element Update EIR cited applicable SCAs that would ensure less-than-significant biological resource impacts. The 1998 LUTE EIR identified no mitigation measures related to biological resource impacts.

The Uptown EIRs identified no significant impacts related to special-status species, wildlife corridors, riparian and sensitive habitat, wetlands, or tree and creek restoration.

### **Project Analysis**

#### *Special-Status Species, Wildlife Corridors, Riparian and Sensitive Habitat, Wetlands, Tree and Creek Protection (Criteria 3a and 3b)*

The Proposed Project site is located within a developed area, the majority of which is covered with impervious surfaces. Wildlife and botanical resources present within the Proposed Project site are adapted to disturbed, urban conditions and would not be adversely affected by implementation of the Proposed Project.

### **Conclusion**

Consistent with the findings of the Uptown EIRs, the Proposed Project would not result in any significant impacts related to biological resources. Further, based on an examination of the analysis, findings, and conclusions of the Uptown EIRs and the Program EIRs considered in this analysis, implementation of the Proposed Project would not substantially increase the severity of impacts identified in the Uptown EIRs or the previously mentioned Program EIRs, nor would the Proposed Project result in new significant impacts related to biological resources that were not identified other Program EIRs. The Uptown EIRs did not identify any mitigation measures related to biological resources, and none would be needed for the implementation of the Proposed Project. Furthermore, no city SCAs are applicable to the Proposed Project.



**D. CULTURAL RESOURCES**

Would the project:	Equal or Less Severity of Impact Previously Identified in the Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
<p>a. Cause a substantial adverse change in the significance of an historical resource as defined in CEQA Guidelines Section 15064.5. Specifically, a substantial adverse change includes physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be “materially impaired.” The significance of an historical resource is “materially impaired” when a project demolishes or materially alters, in an adverse manner, those physical characteristics of the resource that convey its historical significance <b>and</b> that justify its inclusion on, or eligibility for inclusion on an historical resource list (including the California Register of Historical Resources (California Register), the National Register of Historic Places (National Register), Local Register, or historical resources survey form (DPR Form 523) with a rating of 1–5).</p>	■	□	□
<p>b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5.</p>	■	□	□
<p>c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.</p>	■	□	□
<p>d. Disturb any human remains, including those interred outside of formal cemeteries.</p>	■	□	□

**Previous CEQA Documents Findings**

Cultural resources, including historic, archaeological, and paleontological resources, were analyzed in the Program EIRs. The 2011 Renewal Plan EIR identified two significant and unavoidable historic cumulative impacts related to city-wide development and cited applicable SCAs and mitigation measures to minimize the effects but not to a less-than-significant level. The 2010 Housing Element Update EIR found that all impacts related to historic resources, paleontological and archeological resources, and human remains would be less than significant and no mitigation measures would be required. The 1998

LUTE EIR identified impacts related to paleontological and archaeological remains, and demolition, however with the implementation of mitigation measures that are functionally equivalent to current SCAs these potential impacts were found to be less than significant.

The Uptown EIRs assessed potential impacts relating to historic architecture, and archaeological and paleontological resources that could occur as a result of redevelopment on Block 8 which includes the Proposed Project site at 2016 Telegraph Avenue (i.e., Block 8, hereafter “Proposed Project site”). The Uptown EIRs identified several significant impacts relating to ground disturbance, site clearance, and demolition, and cited mitigation measures that would reduce the majority of these impacts to less-than-significant levels. The Uptown EIRs impacts related to demolition and modification of the Great Western Power Company building within the vicinity of the Proposed Project site were found to be significant and unavoidable. Mitigation measures were cited to substantially reduce the effects of demolition, but not to a less-than-significant level.

### **Project Analysis**

To update the 2004 baseline conditions for cultural resources, LSA conducted records searches at the Northwest Information Center in Rohnert Park, California; the Native American Heritage Commission (NAHC) in Sacramento; and the Oakland Cultural Heritage Survey (OCHS) in the City of Oakland’s Planning and Building Department. The results of the background research indicated no change in baseline conditions in and adjacent to the Proposed Project site over conditions described in the Uptown EIRs.

The Proposed Project site is located at the northeast corner of Telegraph Avenue and Thomas L. Berkley Way (20<sup>th</sup> Street) on Block 8 within the 10-block area studied in the Uptown EIRs. Historic resources immediately adjacent to the Proposed Project Site include the Paramount Theater (2025 Broadway). Historic resources within the vicinity of the Proposed Project Site include the YMCA building (2101 Telegraph Avenue), the First Baptist Church of Oakland (534 22<sup>nd</sup> Street), the Great Western Power Company building (520 20<sup>th</sup> Street), the H.C. Capwell/Emporium-Capwell building (1955 Broadway/1954 Telegraph Avenue), the I. Magnin and Company building (2001 Broadway), and the Fox Theater (1807 Telegraph Avenue).

The Proposed Project includes the redevelopment of the Proposed Project Site at a larger scale than what was evaluated in the Uptown EIRs.<sup>40</sup> The Uptown EIRs considered a 10,000-square-foot commercial development with 50 parking spaces. The Proposed Project proposes an 18-story mixed-use building with 4,622 square feet of commercial space and 137,900 square feet of residential space.<sup>41</sup>

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<sup>40</sup> LSA Associates, Inc., 2006. Uptown Mixed Use Project EIR Addendum: Attachment F, March 30.

<sup>41</sup> Brick, 2016. 2016 Telegraph, Oakland CA 94608 Zoning Pre-Application, July 25.

*Material Impairment of a Historical Resource (Criteria V.a)*

The Uptown EIRs found less-than-significant impacts with mitigation as well as significant and unavoidable impacts related to the demolition of buildings inventoried by OCHS, new construction adjacent to historical resources and within the vicinity of the Fox Theater. These were identified as Impacts HIST-9, HIST-10, and HIST-11. These impacts were considered less than significant and no mitigation measures were required.

Impact HIST-13 identified significant but mitigable impacts related to the installation of streetscape enhancements and lighting on surrounding historical resources including elements of the Uptown Shopping/Entertainment Historic District and the Fox Theater. Implementation of Mitigation Measure HIST-13 would require the Proposed Project to be reviewed under the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Preservation of Historic Buildings and would make Impact HIST-13 less than significant.

No specific historic resources have been identified on the Proposed Project site, but the site is immediately adjacent to rear portions of a significant resource, the Paramount Theater. Implementation of the Proposed Project would not significantly impact the integrity of location, design, workmanship, association, and materials of the historical resources adjacent to the Proposed Project site. The integrity of setting and feeling of historical resources adjacent to the Proposed Project site, including those in the surrounding vicinity described above, have been previously compromised by continuous 20<sup>th</sup> century development in the Uptown Oakland neighborhood and adjacent urban core of a large metropolitan city.

The Proposed Project would be adjacent to the Paramount Theater, which is listed in the National Register of Historic Places and is a historical resource under CEQA. As mentioned above, the Uptown EIRs originally evaluated the impacts of construction of a one-story commercial building in the Proposed Project site to the Paramount Theater.<sup>42</sup> Despite the differential in height between the Proposed Project and the previously analyzed development scenario, the construction of the proposed 18-story building adjacent to the Paramount Theater does not create a new potentially significant impact. The Paramount Theater, its art deco façade and marquis fronts on Broadway. The Proposed Project would be adjacent to the backside of the building along the west and south façades, which do not include any ornamentation. Although the Proposed Project includes an 18-story building, its construction continues the trend of on-going high-rise development in the area subsequent to the Paramount Theater's construction in 1931. The building would not be the first of its type in the Uptown Oakland neighborhood. Similar projects are currently underway at 1911 Telegraph Avenue, 1954 Telegraph Avenue (Emporium-Capwell building), 1900 Broadway, 1700 Broadway, and 540 21<sup>st</sup> Street. The Proposed Project would not materially impair or affect the Paramount Theater's integrity of location, design,

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<sup>42</sup> LSA Associates, Inc., 2004. Uptown Mixed Use Project EIR, February 2.

material, or workmanship as the shadows casted would not affect the ornamentation of the theater’s front façade. In addition, the Uptown EIRs did not identify any impacts related to development on Block 8, therefore, no mitigation measures apply.

The Proposed Project would not materially impair or affect the Paramount Theater’s integrity of location, design, materials, or workmanship. Streetscape enhancement plans within the Proposed Project site would comply with the Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for the Preservation of Historic Buildings, which would match the existing characteristics of the Telegraph Avenue urban corridor and Uptown neighborhood. Implementation of the Proposed Project would not increase the severity of any previously identified less-than-significant or mitigated impacts. No mitigation measures are necessary to address these impacts.

The Uptown EIRs found that less-than-significant indirect impacts to historical resources could result from construction in the Proposed Project site adjacent to the Paramount Theater. This was identified as Impact HIST-10. No mitigation measures were required. The Proposed Project would also be required to implement the City of Oakland Standard Condition of Approval SCA-CULT-1: Vibration Impacts on Adjacent Historic Structures or Vibration-Sensitive Activities (#66). This SCA will identify methods through which construction will not exceed these thresholds.<sup>43</sup> Compliance with SCA-CULT-1 would further reduce potential impacts to historical resources to a level of less than significant.

The Shadow Study discussed in Section VI.A, Aesthetics, Shadow, and Wind, analyzed new and cumulative shadows cast by the Proposed Project on nearby historical resources between 9:00 a.m. and 3:00 p.m. on June 21<sup>st</sup>, March 20<sup>th</sup>, September 22<sup>nd</sup>, and December 21<sup>st</sup>. These resources include the Great Western Power Company building (520 20<sup>th</sup> Street), the south-facing façade of the YMCA building (2101 Telegraph Avenue), and the west-facing and south-facing façades of the Paramount Theater (2025 Broadway).<sup>44</sup> Analysis indicates that the presence of new shadows does not create a significant shade and shadow impact,<sup>45</sup> as the aspects of those buildings that convey their significance would not be materially impaired; they would continue to be perceived for their architectural and historical value. For this reason the impact would be less than significant and no mitigation measures would be required.

*Change in the Significance of Archaeological Resources (Criteria V.b)*

The Proposed Project includes plans for subsurface storage space and infrastructure. The Uptown EIRs found that potentially significant impacts to subsurface archaeological resources could result from ground-disturbing construction activities within the project site. This was identified as Impact HIST-2. The Uptown EIRs included a two-part mitigation measure to address Impact HIST-2 and reduce it to a less-than-significant level.

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<sup>43</sup> City of Oakland, 2015. Standard Conditions of Approval, July 22.

<sup>44</sup> City of Oakland, 2013. CEQA Thresholds of Significance, October 28.

<sup>45</sup> PreVision, 2016, 2015 Telegraph: Shade and Shadow.

Mitigation Measure HIST-2a and -2b in the Uptown EIRs detail measures to reduce impacts related to archaeological resources prior to construction. Mitigation Measures HIST-2a and -2b requires monitoring to ensure any archaeological deposits are properly identified and mitigation, or avoidance plans, for archaeological deposits that qualify as significant resources under CEQA are prepared and implemented. If avoidance is not feasible, the qualified archaeologist will develop a data recovery plan to mitigate the destruction of the archaeological feature. The Proposed Project includes plans for subsurface storage space and infrastructure and Implementation of the Proposed Project would not increase the severity of any previously identified less-than-significant impacts.

Since certification of the Uptown EIRs, the City has adopted SCAs that are applicable to all development projects and SCA-CULT-2: Archaeologically Sensitive Areas – Pre-Construction Measures (#30) is functionally equivalent to Mitigation Measure HIST-2a as described below. As a result, Mitigation Measure HIST-2a has been modified to only include the portion that is not covered by SCA-CULT-2. The mitigation requires the project to create a testing program in conjunction with a sensitivity study to ensure no subsurface impacts occur on-site during excavation. In addition to SCA-CULT-2, the Proposed Project would be required to comply with Mitigation Measure HIST-2b that ensures archaeological monitoring of ground-disturbing construction would occur in response to the testing program identified by Mitigation Measure HIST-2a as described in Attachment A.

SCA-CULT-2 requires a qualified archaeologist assess and determine whether the applicant should comply with either an Intensive Pre-Construction Study or a Construction ALERT sheet as described in Attachment A. Compliance with SCA-CULT-2 and implementation of a portion of Mitigation Measure HIST-2a and Mitigation Measure HIST-2b would reduce potential impacts to archaeological resources to a level of less than significant.

*Change in the Significance of Paleontological Resources (Criteria V.c)*

The Proposed Project includes plans for subsurface storage space and infrastructure. The Uptown EIRs found that potentially significant impacts to subsurface paleontological resources could result from construction-related ground-disturbing activities within the Uptown Project site. This was identified as Impact HIST-1. The sediments that underlie the Uptown Project site have a high sensitivity for paleontological resources. The Uptown EIRs created a two-part mitigation measure to address Impact HIST-1 to reduce it to a less-than-significant level: Mitigation Measures HIST-1a and -1b. This mitigation measure reduces potentially significant impacts through paleontological monitoring to identify paleontological deposits, evaluate potential significance, and develop mitigation and data recovery plans for paleontological deposits that qualify as significant resources under CEQA. Implementation of the Proposed Project does not increase the severity of any previously identified significant impacts.

Since the certification of the Uptown EIRs, the City has adopted SCAs that are applicable to all development projects. In addition to Mitigation Measures HIST-1a, the Proposed Project

would also be required to implement SCA-CULT-3: Archaeological and Paleontological Resources (#29).<sup>46</sup> SCA-CULT-3 requires that all ground-disturbing activity within 50 feet of a paleontological resource shall be stopped. A qualified paleontologist will assess the deposit, evaluate its significance, and develop a data recovery plan, if necessary. Ground-disturbing activity can resume elsewhere in the Proposed Project site while archaeological analysis is on-going. SCA-CULT-3 is functionally equivalent, and more protective than, Mitigation Measure HIST-1 b and as a result the mitigation has been modified to only include the portion that is not covered by SCA-CULT-3. The mitigation would require a paleontologist to monitor all ground-disturbing activity to their discretion. Compliance with SCA-CULT-3 with the modified Mitigation Measure HIST-1 b and implementation of Mitigation Measure HIST-1a would reduce potential impacts to paleontological resources to a level of less than significant.

*Disturb Human Remains (Criteria V.d)*

The Proposed Project includes plans for subsurface storage space and infrastructure. The Proposed Project EIRs found that potentially significant impacts to human remains could result from construction-related ground-disturbing activities within the Proposed Project site. This was identified as Impact HIST-3. Although no formal cemeteries were identified within the Uptown Project site, human remains may be interred outside formal cemeteries. The Uptown EIRs included a mitigation measure to address Impact HIST-3 to reduce it to a less-than-significant level: Mitigation Measure HIST-3. This mitigation measure reduces potentially significant impacts by requiring construction activity to stop if human remains are encountered. The Alameda County coroner must be notified immediately. If the human remains are determined to be Native American, the coroner must notify the NAHC within 24 hours and a qualified archaeologist should be contacted to evaluate the findings. The NAHC will notify the Most Likely Descendent (MLD) for recommendations on the proper treatment and archaeological analysis of the remains. A report will be provided to the NWIC by the qualified archaeologist. Implementation of the Proposed Project does not increase the severity of any previously identified less-than-significant mitigated impacts.

The Proposed Project would be required to implement SCA-CULT-4: Human Remains (#31). SCA-CULT-4 requires that all construction activity stop if human remains are encountered and is functionally equivalent to Mitigation Measure HIST-3 and as a result, would be superseded by SCA-CULT-4. The Alameda County coroner will be contacted, who will follow appropriate protocols. All excavation and site preparation activities will cease within a 50-foot radius of human remains while arrangements are made with the NAHC and MLD. If avoidance is not feasible, an alternative construction plan will be developed and implemented. Compliance with SCA-CULT-4 would reduce potential impacts to human remains to a level of less than significant.

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<sup>46</sup> City of Oakland, 2015. Standard Conditions of Approval, July 22.

## Conclusion

Based on an examination of the analysis, findings, and conclusions of the Uptown EIRs and the Program EIRs, implementation of the Proposed Project would not substantially increase the severity of significant cultural impacts identified in the Uptown EIRs or the Program EIRs, nor would it result in new significant impacts related to historical, archaeological, and paleontological resources that were not identified in the Uptown Project EIR or the Program EIRs. The Proposed Project would be required to implement mitigation measures identified in the Uptown Project EIR as well as City of Oakland SCAs related to vibration, archaeological and paleontological resources, and human remains as identified in Attachment A. For reference, these are: SCA-CULT-1: Vibration Impacts on Adjacent Historic Structures or Vibration-Sensitive Activities (#66), SCA-CULT-2: Archaeologically Sensitive Areas – Pre-Construction Measures (#30), SCA-CULT-3: Archaeological and Paleontological Resources – Discovery During Construction (#29), and SCA-CULT-4: Human Remains – Discovery During Construction (#31). The Proposed Project would also be required to comply with portions of Mitigation Measures HIST-1b and -2a, and the entirety of Mitigation Measures HIST-1a, -2b, and -13. These SCAs and Mitigation Measures are included in Attachment A: Standard Conditions of Approval and Mitigation Monitoring and Reporting Program.

**E. GEOLOGY, SOILS, AND GEOHAZARDS**

Would the project:	Equal or Less Severity of Impact Previously Identified in the Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
a. Expose people or structures to substantial risk of loss, injury, or death involving: <ul style="list-style-type: none"> <li>▪ 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;</li> <li>▪ Strong seismic ground shaking;</li> <li>▪ Seismic-related ground failure, including liquefaction, lateral spreading, subsidence, collapse; or</li> <li>▪ Landslides.</li> </ul>	■	□	□
b. Be located on expansive soil, as defined in Section 1802.3.2 of the California Building Code (2007, as it may be revised), creating substantial risks to life or property; result in substantial soil erosion or loss of topsoil, creating substantial risks to life, property, or creeks/waterways.	■	□	□

**Previous CEQA Documents Findings**

Geology, soil erosion, and seismic geohazards were analyzed in the Program EIRs and impacts were found to be less than significant and no mitigation measures were required. The 2011 Renewal Plan EIR and 2010 Housing Element Update EIR cited no mitigation measures or SCAs related to geology, soils, and geohazards. The 1998 LUTE EIR identified no significant impacts and cited no mitigation measures related to geology, soils, and geohazards.

The Uptown EIRs evaluated potential impacts related to geology, soils and geohazards. The EIRs, which considered new development on Block 8 including the Proposed Project site, concluded that impacts related to geology, soils and geohazards would be less than significant with implementation of the identified mitigation measures and SCAs. As described below, no mitigation measures were identified by the Uptown EIRs and all applicable City SCAs would be implemented under the Proposed Project to reduce impacts related to geology, soils, and geohazards. The analysis below demonstrates that no new or more severe impacts would occur under the Proposed Project.



## Project Analysis

### *Exposure to Risk of Loss, Injury, or Death Involving Fault Rupture, Seismic-Related Shaking, Liquefaction, Lateral Spreading, Subsidence, or Collapse, or Landslides (Criterion V.a)*

The nearest active fault to the Proposed Project site is the Hayward Fault, which is located approximately 5 miles east of the Proposed Project site.<sup>47</sup> The Proposed Project site is not located within or adjacent to an Alquist-Priolo Earthquake Fault Zone,<sup>48</sup> and therefore would not result in significant impacts with respect to rupture of a known earthquake fault.

The Proposed Project site is also not within a liquefaction hazard zone or earthquake-induced landslides hazard zone, as designated on a map prepared by the California Geological Survey.<sup>49</sup> The Proposed Project site is in a seismically active region, and would experience very strong shaking in the event of a magnitude 6.8 earthquake on the Hayward Fault.<sup>50</sup> A Preliminary Geotechnical Investigation was performed for the Proposed Project using data collected from nearby sites to evaluate the potential for earthquake-induced geologic hazards, including ground shaking, ground surface rupture, liquefaction, lateral spreading, and cyclic densification (earthquake-induced settlement) in the vicinity of the Proposed Project site. The following information is based on the findings of the Preliminary Geotechnical Investigation.

The Proposed Project site is mapped at the edge of a zone of artificial fill, which appears to correspond to a former drainage and/or tidal flat of Lake Merritt. Fills associated with former drainages to Lake Merritt are typically underlain by young, weak, compressible marsh deposits. Based on review of data previously collected at nearby sites, as well as the regional geologic mapping, the Proposed Project site may be underlain by 5 feet to more than 10 feet of loose to medium dense sandy fill. The fill is likely underlain by weak, compressible marsh deposits, which are anticipated to be thickest along the south edges of the Proposed Project site.

The estimated total settlement associated with liquefaction in the area of the Proposed Project site after a major event on a nearby fault ranges from about 0 to 3 inches. Considering the relatively gently sloping grades and the absence of a free face in the topography of the Proposed Project site, as well as the depth and relative thickness of the potentially liquefiable layers, the risk of lateral spreading at the Proposed Project site is low. The loose to medium dense silty sand and sand that underlies the Proposed Project site are susceptible to earthquake-induced settlement on the order of 1 inch.

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<sup>47</sup> Rockridge Geotechnical, 2016. Preliminary Geotechnical Study, Proposed High-Rise Residential Buildings, 2015 & 2016 Telegraph Avenue, Oakland, California, November 17.

<sup>48</sup> California Department of Conservation, 1982. Special Studies Zones, Oakland West, January 1.

<sup>49</sup> California Geologic Survey, 2003. State of California Seismic Hazard Zones, Oakland West Quadrangle Official Map. Released February 14.

<sup>50</sup> Association of Bay Area Governments (ABAG), 2016. Shaking Severity Map. Available: <http://gis.abag.ca.gov/website/Hazards/?hlyr=haywardSouth&co=6001>, accessed November 17.

The Preliminary Geotechnical Investigation concluded that there are no major geotechnical or geological issues that would preclude development of the Proposed Project; the proposed buildings may be supported on deep foundations, or alternatively, a reinforced concrete mat foundation bearing on a ground improvement system; and the primary geotechnical issues affecting the proposed development include: 1) the potential for differential foundation capacities and settlement between the at-grade and below-grade portions of the building; 2) the likely presence of potentially liquefiable soil underlying the site; 3) shallow groundwater relative to the proposed below-grade level; 4) providing adequate foundation support for relatively high loads of the proposed buildings; and 5) influence on and/or from neighboring buildings on below-grade walls and foundations. The Preliminary Geotechnical Investigation recommended that prior to final design, a final geotechnical report should be prepared based on a site-specific field investigation and the final proposed development plan.

The Proposed Project would be required to comply with the City's SCAs related to geology and soils prior to approval of construction-related permits, including SCA-GEO-1: Construction-Related Permit(s) (#33) which would require the Proposed Project to comply with all standards, requirements and conditions contained in construction-related codes to ensure structural integrity and safe construction; and SCA-GEO-2: Soils Report (#34) which would require the Proposed Project to implement the recommendations of a soils report prepared by a registered geotechnical engineer for appropriate grading practices and project design.

Compliance with SCA-GEO-1: Construction-Related Permit(s) (#33) would ensure that the Proposed Project would be designed and constructed in accordance with local and state construction requirements, including the California Building Code, related to seismic hazards. Compliance with SCA-GEO-2: Soils Report (#34) would ensure that the Proposed Project would be constructed in accordance with recommendations of a site-specific soil report, which would address potential issues of ground shaking, liquefaction, and settlement, to prevent exposure of people or structures to substantial risk of loss, injury, or death during a large regional earthquake. Therefore, the Proposed Project would result in less-than-significant impacts with respect to ground shaking, seismic-related ground failure, or landslides.

*Expansive Soil, Erosion or Loss of Topsoil, Creating Substantial Risks to Life, Property, or Creeks/Waterways. (Criterion V.b)*

The Preliminary Geotechnical Investigation did not identify expansive soils as a potential geologic hazard for the Proposed Project site. Expansive soils have high clay content, and the Preliminary Geotechnical Investigation indicated that fill soils beneath the site likely consist of loose to medium dense sandy fill. It is possible that the site-specific soil investigation and soils report (as required by SCA-GEO-2: Soils Report (#34)) would identify expansive soils beneath the Proposed Project site. Implementation of the geotechnical recommendations in the soils report would ensure that potential hazards

associated with expansive soils, if identified, would be mitigated to a less-than-significant level through appropriate foundation design.

As discussed under Hydrology and Water Quality (Section VI.H) the Proposed Project would be required to comply with the City’s SCA-HYD-1: Erosion and Sedimentation Control Plan for Construction (#45), which requires the implementation of an Erosion and Sedimentation Control Plan, which would minimize erosion and loss of top soil during construction. Following the completion of construction, there would be no exposed soil on the Proposed Project site which could be lost through erosion. Therefore, the Proposed Project would not result in significant impacts with respect to substantial soil erosion or loss of topsoil.

### **Conclusion**

Consistent with the findings of the Uptown EIRs, the Proposed Project would not result in any significant impacts related to geology, soils, and geohazards. Further, based on an examination of the analysis and the findings and conclusions of the Uptown EIRs, implementation of the Proposed Project would not substantially increase the severity of significant impacts identified in the EIRs, nor would it result in new significant impacts related to geology, soils, and geohazards that were not identified in the Uptown EIRs.

With implementation of the City’s SCAs, the Proposed Project would not result in any significant project or cumulative impacts related to geology, soils, and geohazards. No mitigation measures are required. Compliance with the City’s SCAs, including SCA-GEO-1: Construction-Related Permit(s) (#33), SCA-GEO-2: Soils Report (#34), and SCA-HYD-1: Erosion and Sedimentation Control Plan for Construction (#45), as discussed above, would ensure that the Proposed Project would not result in significant impacts related to geology, soils, and geohazards. These SCAs are included in Attachment A: Standard Conditions of Approval and Mitigation Monitoring and Reporting Program.

**F. GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE**

Would the project:	Equal or Less Severity of Impact Previously Identified in the Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, specifically: <ul style="list-style-type: none"> <li>▪ For a project involving a stationary source, produce total emissions of more than 10,000 metric tons of CO<sub>2</sub>e annually.</li> <li>▪ For a project involving a land use development, produce total emissions of more than 1,100 metric tons of CO<sub>2</sub>e annually AND more than 4.6 metric tons of CO<sub>2</sub>e per service population annually. 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.</li> </ul>	■	□	□
b. Fundamentally conflict with applicable plan, policy, or regulation adopted for the purposes of reducing greenhouse gas emissions.	■	□	□

**Previous CEQA Documents Findings**

Climate change and greenhouse gas emissions (“GHGs”) were not expressly addressed in the Program EIRs. The 2011 Renewal Plan EIR identified less-than-significant GHG impacts with the incorporation of applicable City of Oakland SCAs. No mitigation measures were required.

The Uptown EIRs did not specifically address GHGs and climate change. Since information on climate change and GHG emissions was known, or could have been known, when the EIR was certified in 2004, it is not legally “new information” as specifically defined under CEQA and thus is not legally required to be analyzed as a part of this Addendum. This is consistent with the First District Court of Appeal’s ruling in *Concerned Dublin Citizens v. City of Dublin*, 214 Cal.App.4th 1301 (2013).

However, in the interest of being conservative and to foster informed decision making, an evaluation of potential GHG and climate change impacts is included in the CEQA Checklist for the purpose of providing more information to the lead agency and the public. It does not serve as a criterion for evaluating CEQA impacts. Additionally, the Proposed Project is subject to the City of Oakland’s current SCAs as described below.

As described under Section VI.B, Air Quality, the City of Oakland utilizes thresholds of significance recommended by the BAAQMD<sup>51</sup> to evaluate potential impacts to the existing environment from GHG emissions. The BAAQMD’s thresholds of significance for GHG emissions, which are defined in terms of carbon dioxide equivalents (CO<sub>2</sub>e), were designed to ensure compliance with the State’s Assembly Bill (AB) 32 GHG reduction goals. The Uptown EIRs did not use thresholds of significance because neither the BAAQMD nor the City of Oakland had developed thresholds to analyze potential impacts from GHG emissions at that time.

**Project Analysis**

*Greenhouse Gas Emissions Generation (Criteria VI.a)*

The BAAQMD recommends using the most current version of the California Emissions Estimator Model (CalEEMod) to estimate construction and operation emissions for a land-use project. CalEEMod utilizes widely accepted models for emission estimates combined with appropriate default data for a variety of land-use projects that can be used if site-specific information is not available. The default data (e.g., emission factors) are supported by substantial evidence provided by regulatory agencies and a combination of statewide and regional surveys of existing land uses and resources. The primary input data used to estimate emissions associated with construction and operation of the Proposed Project are summarized in Table 16. A copy of the CalEEMod report for the Proposed Project, which summarizes the input parameters, assumptions, and findings, is provided in Attachment G.

**TABLE 16      SUMMARY OF LAND-USE INPUT PARAMETERS FOR CALEEMOD**

Land-Use Type	CalEEMod Land-Use Type	Units	Unit Amount
Residential	Apartments High Rise	Dwelling Units	230
Retail	High-Turnover (Sit-Down) Restaurant	Square Feet	5,304
Parking Garage	Enclosed Parking with Elevator	Square Feet	10,718

Notes: The Proposed Project footprint would be about 0.47 acres. The total gross floor area would be about 200,074 square feet and the parking garage would include 90 spaces.  
Source: CalEEMod (Appendix G).

<sup>51</sup> Bay Area Air Quality Management District (BAAQMD), 2010. Proposed Air Quality CEQA Thresholds of Significance, May 3.

Project construction is scheduled to begin in mid-2017 and last approximately 26 months. Based on the construction schedule, project operation was assumed to begin as early as 2019; this is a conservative assumption because statewide vehicle emission standards are required to improve over time in accordance with the Pavley (AB 1432) and Low-Emission Vehicle regulations (Title 13, California Code of Regulations, Section 1961.2). Therefore, the assumption on an earlier operation year would be more conservative than an assumption on a later operation year. Additional project-specific information used to calculate GHG emissions in CalEEMod, including changes to default data, is summarized in Table 17.

**TABLE 17 SUMMARY OF PROJECT-SPECIFIC ASSUMPTIONS FOR CALEEMOD**

<b>CalEEMod Input Category</b>	<b>Assumptions and Changes to Default Data</b>
Construction Phase	The default construction duration was modified to 565 work days (about 26 months). Since there is no existing vegetation that needs to be removed prior to construction, a site preparation phase was not included in the analysis.
Material Movement	Approximately 3,000 cubic yards of soil export is anticipated.
Demolition	Demolition debris from the existing 20,814 square-feet of parking lot (about 377 tons) is expected to be hauled off-site.
Utility provider	Based on review of Pacific Gas & Electric’s (2015) Greenhouse Gas Emission Factors: Guidance for PG&E Customers, the default CO <sub>2</sub> intensity factor reported for 2008 was updated to the most recent CO <sub>2</sub> intensity factor verified by a 3 <sup>rd</sup> party in 2013.
Vehicle Trips	According to the Proposed Project traffic analysis by Fehr & Peers <sup>52</sup> , residential uses would generate about 3.80 weekday trips/dwelling-unit/day and project retail uses would generate about 72.5 weekday trips/1,000 ft <sup>2</sup> /day. These trip estimates account for a 43 percent trip reduction based on the City of Oakland’s Transportation Impact Study Guidelines data for development in an urban environment within 0.5 miles of a BART Station. Similarly, the default weekend trip rates were reduced by 43 percent.
Fireplaces and Woodstoves	It was assumed that there would be no fireplaces or woodstoves.
Wastewater	Based on the design of the East Bay Municipal Utility District’s Wastewater Treatment Plant, emissions estimated from wastewater treatment assumed a process with 100 percent aerobic biodegradation and 100 percent anaerobic digestion with cogeneration.
Water Use	In accordance with the City of Oakland’s Green Building Ordinance, the proposed project will implement mandatory measures from the statewide CALGreen Code to reduce indoor water use by approximately 20 percent.
Stationary Sources	In accordance with the California Building Code, an emergency generator would be required for the Proposed Project. It was assumed that a maximum 1,000 horsepower diesel generator would be used for non-emergency operation up to 50 hours per year (for routine testing and maintenance).

Notes: Default CalEEMod data used for all other parameters not described.  
 Source: CalEEMod (Attachment G).

<sup>52</sup> Fehr & Peers, 2016. 2016 Telegraph Avenue – Trip Generation and Study Intersection Selection, August 30.

As shown in Table 17, the City of Oakland has also adopted a Green Building Ordinance for private development projects. In accordance with the Green Building Ordinance, the Proposed Project must implement mandatory measures from the statewide CALGreen Code and complete a Green Building Compliance Checklist (e.g., LEED or GreenPoint Rated).<sup>53</sup> While the Proposed Project would have to comply with the mandatory measures described under the current CALGreen Code, which would reduce indoor water use by approximately 20 percent, implementation of voluntary building efficiency measures that could result in additional GHG reductions were not accounted for in GHG analysis using CalEEMod. In addition, potential GHG reductions associated with implementation of the 2016 Building Energy Efficiency Standards, which will take effect on January 1, 2017, were not accounted for in the GHG analysis using CalEEMod. Therefore, the analysis of GHG impacts for the Proposed Project is conservative.

In accordance with the City of Oakland’s CEQA guidance for evaluating the GHG thresholds of significance, the construction CO<sub>2</sub>e emissions were annualized over a period of 40 years and then added to the expected CO<sub>2</sub>e emissions during operation. The average annual CO<sub>2</sub>e emissions per service population (584 people) was determined based on the forecasted population of residents and employees.<sup>54</sup>

According to the CEQA streamlining provisions described under Senate Bill (SB) 375, certain “mixed-use residential projects” that are consistent with the general use designation, density, building intensity, and applicable policies specified in a Sustainable Communities Strategy (SCS) do not need to analyze climate change impacts resulting from cars and light-duty trucks. As defined in Public Resources Code (PRC) Section 21159.28(d), a mixed-use residential project is a project where at least 75 percent of the total building square footage of the project consists of residential use or a “Transit Priority Project” as defined in PRC Section 21155(b). Since the Proposed Project’s residential floor area (176,645 square feet<sup>55</sup>) represents about 88 percent of the total building floor area (200,074 square feet), the Proposed Project meets the definition of a mixed-use residential project per PRC Section 21159.28[d].

The adopted Plan Bay Area<sup>56</sup> serves as the SCS for the Bay Area. As defined by Plan Bay Area, Priority Development Areas (PDAs) are areas where new development will support the needs of residents and workers in a pedestrian-friendly environment served by transit. According to the Metropolitan Transportation Commission, the Proposed Project is located

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<sup>53</sup> Rating system and checklist determined by City of Oakland Planning Department based on square footage of each land use.

<sup>54</sup> Based on average of 2.49 persons per household (2015-2023 Housing Element, 2010 US Census Data, p. 114, Table 3-5) and a standard assumption of 1 employee per 500 square feet.

<sup>55</sup> The residential floor area includes amenities, circulation, services, and trash on floors levels 2-18.

<sup>56</sup> Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG), 2013. Plan Bay Area, Strategy for a Sustainable Region. <http://mtc.ca.gov/our-work/plans-projects/plan-bay-area-2040/plan-bay-area>, accessed November 15, 2016.

within a PDA.<sup>57</sup> Furthermore, the Proposed Project is permitted in the zoning district where the Proposed Project site is located, and is consistent with the bulk, density, and land uses envisioned for the site. Therefore, since the Proposed Project qualifies as a mixed-use residential project pursuant to PRC Section 21159.28(d) and is consistent with the applicable provisions of Plan Bay Area, the Proposed Project’s estimated GHG emissions from cars and light-duty trucks are excluded from the GHG analysis.

The total average annual CO<sub>2</sub>e emissions and the total average annual CO<sub>2</sub>e emissions per service population for the Proposed Project are compared to the BAAQMD’s thresholds of significance in Table 18. The estimated unmitigated CO<sub>2</sub>e emissions were below the BAAQMD’s thresholds of significance for total CO<sub>2</sub>e emissions and total CO<sub>2</sub>e emissions per service population. Therefore, operation of the Proposed Project would have a less-than-significant impact on global climate change.

**TABLE 18 SUMMARY OF AVERAGE GHG EMISSIONS FROM OPERATION OF THE PROJECT**

<b>Emission Source</b>	<b>CO<sub>2</sub>e (MT/year)</b>	<b>CO<sub>2</sub>e (MT/year/SP)</b>
Construction <sup>a</sup>	20.1	0.03
Operation – Area	2.9	<0.01
Operation – Energy	436.0	0.75
Operation – Mobile <sup>b</sup>	518.3	0.89
Operation – Waste	84.9	0.15
Operation – Water	27.3	0.05
Total Project Emissions	1,090	1.9
Thresholds of Significance	1,100	4.6
Threshold Exceedance?	No	No

Notes: MT = metric tons; SP = service population

<sup>a</sup> In accordance with CEQA guidance from the City of Oakland, GHG emissions during construction are amortized over 40 years.

<sup>b</sup> In accordance with SB 375 CEQA streamlining provisions, GHG emissions during operation exclude vehicle trips from cars and light-duty trucks.

Source: CalEEMod (Appendix G).

The Proposed Project includes a mixed-use building more than five stories in height. In accordance with the California Building Code, the Proposed Project would be required to operate an emergency generator for the elevator system that complies with the BAAQMD’s

<sup>57</sup> Metropolitan Transportation Commission (MTC), 2016. Priority Development Area (PDA) and Transit Priority Area (TPA) Map for CEQA Streamlining. <http://planbayarea.org/misc/Map-CEQA-Streamlining.html>, accessed November 18.



permit requirements for a stationary source. The BAAQMD recommends analyzing GHG emissions from permitted stationary sources separately from a project’s operational emissions. It was assumed that a maximum 1,000 horsepower diesel generator would be used for non-emergency operation up to 50 hours per year (for routine testing and maintenance). The CO<sub>2</sub>e emissions calculated by CalEEMod are shown in Table 19.

**TABLE 19 SUMMARY OF AVERAGE GHG EMISSIONS FROM EMERGENCY GENERATOR**

Stationary Source	CO <sub>2</sub> e (MT/year)
Emergency Generator	19
Threshold of Significance	10,000
Threshold Exceedance?	No

Notes: MT = metric tons  
Source: Baseline, 2016.

The maximum emissions of CO<sub>2</sub>e from the emergency diesel generator are below the BAAQMD’s stationary-source threshold. Therefore, routine testing and maintenance of the emergency generator would have a less-than-significant impact on global climate change. Overall, the land-based and stationary source operations of the Proposed Project would not substantially increase the severity of significance impacts nor result in new significant impacts to the GHG emissions that were not identified in the Uptown EIRs.

*Consistency with GHG Emissions and Policies (Criteria VI.b)*

The BAAQMD’s GHG quantitative thresholds were designed to ensure compliance with the State’s AB 32 GHG reduction goals, as set forth in the California Air Resources Board’s (CARB’s) Climate Change Scoping Plan. Since the GHG emissions from the Proposed Project would be below the BAAQMD’s thresholds of significance (Tables 18 and 19), it can be assumed that the Proposed Project is consistent, and not in fundamental conflict, with the AB 32 Scoping Plan. Moreover, the Proposed Project is located in a Priority Development Area designated by Plan Bay Area,<sup>58</sup> the SB 375 SCS adopted for the purpose of achieving the GHG reduction target established by CARB for the region’s transportation and land use sector pursuant to the AB 32 Scoping Plan. As stated by Plan Bay Area, a Priority Development Area is a geographic area “where new development will support the day-to-day needs of residents and workers in a pedestrian-friendly environment served by transit.” By focusing new development within Priority Development Area, Plan Bay Area establishes a preferred development scenario, build-out of which will achieve the plan’s GHG reduction targets. Since the Proposed Project will be constructed within a Priority

<sup>58</sup> Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG), 2013. Plan Bay Area, Strategy for a Sustainable Region. <http://mtc.ca.gov/our-work/plans-projects/plan-bay-area-2040/plan-bay-area>, accessed November 15, 2016.

Development Area with land uses at a density and intensity that meets or exceeds Plan Bay Area recommendations (i.e., >20 dwelling units per acre; 0.75 FAR), the Proposed Project furthers, and is not in conflict with, Plan Bay Area’s GHG reduction targets.

In December 2012, the City adopted the Energy and Climate Action Plan (ECAP). The purpose of the ECAP is to identify and prioritize actions the City can take to reduce energy consumption and GHG emissions associated with the City. The ECAP outlines a 10-year plan including more than 150 actions that will enable the City to achieve a 36 percent reduction in GHG emissions below 2005 level by 2020.<sup>59</sup> These measures support implementation of the green planning policies in the City of Oakland’s General Plan by promoting energy efficiency and minimizing vehicle emissions. The Proposed Project is consistent with, and would not hinder, the GHG reduction goals set forth in the ECAP and the green planning policies of the General Plan because the Proposed Project would promote land use patterns and densities that help improve regional air quality conditions, as demonstrated by its compliance with Plan Bay Area’s preferred development scenario. The Proposed Project would also be required to comply with the City’s Green Building Ordinance, which supports the goals, policies, and actions of the ECAP and General Plan.

The Proposed Project is subject to the City’s SCAs, some of which reduce GHG emissions. These include but are not limited to preparation and implementation of a Transportation and Parking Demand Management (TDM) Plan under SCA-TRANS-1: Transportation and Parking Demand Management (#71) and SCA-UTIL-4: Construction and Demolition Waste Reduction and Recycling (#74). The Proposed Project would not be subject to a GHG Reduction Plan under City SCA #38: Greenhouse Gas (GHG) Reduction Plan, because estimated GHG emissions (Tables 18 and 19) are below the BAAQMD’s thresholds of significance and the Proposed Project is not large enough to trigger the requirement for a GHG Reduction plan. In addition, the Proposed Project was evaluated with consideration of 2016 Telegraph Avenue and it was determined that the two projects cumulatively did not trigger the requirement for SCA #38 because implementation would not result in the development of over 500 residential units. Overall, the Proposed Project would not conflict with applicable GHG plans, policies or regulations, and this impact would be less than significant.

## **Conclusion**

The Uptown EIRs and Program EIRs did not specifically address GHGs and climate change, however, the Proposed Project would not result in any significant impacts related to GHG emissions as the emissions would be below thresholds established by the City. Further, based on an examination of the analysis, findings, and conclusions of the 2011 Renewal Plan EIR, implementation of the Proposed Project would not substantially increase the severity of impacts identified in the 2011 Renewal Plan EIR. The following SCAs would be applicable to the Proposed Project: SCA-TRANS-1: Transportation and Parking Demand

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<sup>59</sup> City of Oakland, 2012. Energy and Climate Action Plan, December 4.

Management (#71), and SCA-UTIL-4: Construction and Demolition Waste Reduction and Recycling (#74). These SCAs are included in Attachment A: Standard Conditions of Approval and Mitigation Monitoring and Reporting Program.

**G. HAZARDS AND HAZARDOUS MATERIALS**

	Equal or Less Severity of Impact Previously Identified in the Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
<p>Would the project:</p> <p>a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;                      Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;                      Create a significant hazard to the public through the storage or use of acutely hazardous materials near sensitive receptors;                      Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (i.e., the “Cortese List”) and, as a result, create a significant hazard to the public or the environment.</p>	■	□	□
<p>b. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼-mile of an existing or proposed school.</p>	■	□	□
<p>c. Result in less 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; or fundamentally impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.</p>	■	□	□

**Previous CEQA Documents Findings**

Hazards and hazardous materials were analyzed in the Program EIRs, which found that effects to these topics would be less than significant. The 2011 Renewal Plan EIR identified potential impacts related to hazardous materials uses during construction/operation of projects, hazardous building materials that could be disturbed by demolition, and hazardous materials that could be present in soil and groundwater, and described the applicable SCAs that would mitigate these potential impacts to less-

than-significant levels. The 2010 Housing Element Update EIR identified no significant impacts and therefore cited no mitigation measures or SCAs related to hazards and hazardous materials. The 1998 LUTE EIR identified one significant impact related to hazardous waste exposure and cited applicable mitigation measures that are functionally equivalent to current SCAs to reduce certain potential hazardous waste effects to less-than-significant levels.

The Uptown EIRs evaluated potential impacts related to hazards and hazardous materials. Specific to new development on Block 8, which includes the Proposed Project site, the EIRs found that impacts related to hazards and hazardous materials would be less than significant after implementation of the recommended mitigation measures. The identified impacts relate to potential soil and groundwater contamination resulting from past uses/releases of hazardous materials, and demolition of structures containing hazardous building materials.

### **Project Analysis**

#### *Exposure to Hazards, Hazardous Materials Use, Storage and Disposal (Criterion VII.a)*

The Uptown EIRs found that less-than-significant impacts would occur related to routine transport, use, or disposal of hazardous materials as it was not anticipated that large quantities of hazardous materials would be permanently used or stored. Consistent with the findings of the Uptown EIRs, implementation of the Proposed Project would result in less-than-significant impacts related to the routine transport, use, or disposal of hazardous materials as the proposed retail and residential land uses would involve the use of only small quantities of commercially-available hazardous materials (e.g., paint and cleaning supplies).

The Uptown EIRs found that potentially significant impacts could result from the exposure of construction workers and/or the public to hazardous materials from contaminated soil and groundwater during construction activities. This was identified as Impact HAZ-1. Past land uses potentially associated with hazardous materials within Block 8 include a wood and coal yard. Gasoline service stations adjoining Block 8 were also identified. Soils and/or groundwater affected by petroleum hydrocarbons, metals, solvents, and other volatile organic compounds (VOCs) and semi-volatile organic compounds could be present from past land uses.

A Phase I Environmental Site Assessment (ESA)<sup>60</sup> was performed for the proposed project site in 2015 which identified historic uses of the Proposed Project site, which included a wood and coal yard and carpet beating facility with a gas engine in the western portion of the Proposed Project site in 1902. In 1912 the western portion of the Proposed Project site was developed with the Hotel Avalon, a garage, and an auto supplies facility, and the

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<sup>60</sup> Essel, 2015. Phase I Environmental Site Assessment, Commercial Property, 2016 Telegraph Avenue and 490 20<sup>th</sup> Street, Oakland, California, 94612, February 20.

eastern portion of the Proposed Project site was occupied by a 2-story concrete garage with a storage room. The 1912 Sanborn Map included in the Phase I ESA also identified a 50-gallon gasoline underground storage tank (UST) adjacent to the south of this two story garage, which suggests that a gasoline dispenser and piping associated with this UST may have been present on the Proposed Project site. A Historical Cleaner (described as Cleaning and Dyeing Works) was located on the Proposed Project site, from 1925 to 1928. From 1951 through 1961 the Proposed Project site contained the Hotel Avalon and a smaller building in the center of the Proposed Project site. From 1967 through 1970 Hotel Avalon had been removed and the Proposed Project site contained only the smaller building in its center. From 1974 through to the present the Proposed Project site has been a parking lot. The Proposed Project site is not listed on any federal, state, or local environmental databases indicating a release of petroleum products/wastes or hazardous materials/wastes occurred on the Proposed Project site.<sup>61</sup> The Phase I ESA indicated that off-site properties where contaminants have been released, including the property at 2025 Telegraph Avenue which is discussed below, are not likely to have impacted the Proposed Project site. Based on the findings of the Phase I ESA, no further environmental investigation was recommended.

Because the Phase I ESA summarized above is almost two years old, a review of on-line regulatory agency databases was performed to evaluate whether any hazardous materials releases have been recently identified in the vicinity of the proposed project site. A former tire service facility was located at 2025 Telegraph Avenue, approximately 100 feet northwest of the Proposed Project site.<sup>62</sup> A leaking waste oil underground storage tank (UST) and 200 cubic yards of impacted soil were removed from this property in 1992. The Alameda County Department of Environmental Health (ACEH) issued a Remedial Action Completion Certification in 1994, indicating that no further action related to the UST release was required. An elevated concentration of the chlorinated solvent tetrachloroethene (PCE) was detected in a soil sample collected from below the waste oil UST, and the groundwater flow direction was indicated to be toward the south at this site based on groundwater monitoring results.<sup>63</sup> Although the groundwater flow direction was reported to be towards the south, which is not toward the Proposed Project site, groundwater flow directions can vary. Groundwater flow directions have been reported to be toward the southeast at two nearby sites—2200 Telegraph Avenue<sup>64</sup> and 2225

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<sup>61</sup> Essel, 2015. Phase I Environmental Site Assessment, Commercial Property, 2016 Telegraph Avenue and 490 20<sup>th</sup> Street, Oakland, California, 94612, February 20.

<sup>62</sup> Alameda County Department of Environmental Health, 1994. Remedial Completion Certification, 2025 Telegraph Avenue, Oakland, California. November 18. Available at: [http://gis.acgov.org/DEH/LOPDocuments/RO0001023/CLOS\\_L\\_1994-11-18.pdf](http://gis.acgov.org/DEH/LOPDocuments/RO0001023/CLOS_L_1994-11-18.pdf), accessed October 25, 2016.

<sup>63</sup> Alameda County Department of Environmental Health, 1994. Remedial Completion Certification, 2025 Telegraph Ave., Oakland, California. November 18. Available at: [http://gis.acgov.org/DEH/LOPDocuments/RO0001023/CLOS\\_L\\_1994-11-18.pdf](http://gis.acgov.org/DEH/LOPDocuments/RO0001023/CLOS_L_1994-11-18.pdf), accessed October 25, 2016.

<sup>64</sup> Conestoga-Rovers & Associates, 2014. Annual 2014 Groundwater Monitoring and Sampling Report, Chevron Service Station 93600, 2200 Telegraph Avenue, Oakland, California. August 25. Available at: [http://geotracker.waterboards.ca.gov/esi/uploads/geo\\_report/7554389715/T0600161613.pdf](http://geotracker.waterboards.ca.gov/esi/uploads/geo_report/7554389715/T0600161613.pdf), accessed November 3, 2016.

Telegraph Avenue<sup>65</sup>—following the general slope of the ground surface in the area toward Lake Merritt. Therefore, it is possible that contaminated groundwater from the site at 2025 Telegraph Avenue has migrated beneath the Proposed Project site. Based on information in the Remedial Action Completion Certification, it is not clear whether groundwater monitoring included analysis of PCE; therefore, impacts from PCE could have migrated beneath the Proposed Project site. Based on the review of the State Water Resources Control Board’s GeoTracker database,<sup>66</sup> the DTSC’s EnviroStor database,<sup>67</sup> and the ACEH’s Leaking Underground Fuel Tank/Spills Leaks Investigation and Cleanup database,<sup>68</sup> no other hazardous materials releases were identified within the immediate vicinity of the Proposed Project site. Based on the review of public agency databases, the Proposed Project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

The Uptown EIRs includes a three-part mitigation measure to address Impact HAZ-1, which would require performing an environmental investigation to adequately characterize subsurface conditions (Mitigation Measure HAZ-1a); preparation of a site-specific Health and Safety Plan (Mitigation Measure HAZ-1b); and preparation of a Soil and Groundwater Management Plan (SGMP) (Mitigation Measure HAZ-1c) prior to issuing any grading, demolition, or building permit for the proposed project. Since certification of the Uptown EIRs, the City has adopted updated SCAs, which are applicable to all development projects. SCA-HAZ-1: Hazardous Building Materials and Site Contamination (#40) requires the Proposed Project applicant to submit and implement a Health and Safety Plan for review and approval by the City to protect project construction workers from risks associated with hazardous materials. SCA-HAZ-1 also requires the following:

- Soil generated by construction activities shall be stockpiled on-site in a secure and safe manner. All contaminated soils determined to be hazardous or non-hazardous waste must be adequately profiled (sampled) prior to acceptable reuse or disposal at an appropriate off-site facility. Specific sampling and handling and transport procedures for reuse or disposal shall be in accordance with applicable local, state, and federal requirements.
- Groundwater pumped from the subsurface shall be contained on-site in a secure and safe manner, prior to treatment and disposal, to ensure environmental and health issues are resolved pursuant to applicable laws and policies. Engineering controls shall

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<sup>65</sup> Cardno, 2016. Semi-Annual Groundwater Monitoring Report, First Quarter 2016, Former Exxon Service Station 70235, 2225 Telegraph Avenue, Oakland, California. May 13. Available at: [http://geotracker.waterboards.ca.gov/esi/uploads/geo\\_report/5854715704/T0600101354.pdf](http://geotracker.waterboards.ca.gov/esi/uploads/geo_report/5854715704/T0600101354.pdf), accessed November 3, 2016.

<sup>66</sup> State Water Resources Control Board (SWRCB), 2016. GeoTracker database. Available at: <http://geotracker.waterboards.ca.gov/>, accessed October 25, 2016.

<sup>67</sup> Department of Toxic Substances Control (DTSC), 2016. EnviroStor database. Available at: <https://www.envirostor.dtsc.ca.gov/public/>, accessed October 25, 2016.

<sup>68</sup> Alameda County Department of Environmental Health, 2016. LUFT/SLIC database. Available at: <http://gis.acgov.org/DEH/InspectionResults/?SITE=LOP>, accessed October 25, 2016.

be utilized, which include impermeable barriers to prohibit groundwater and vapor intrusion into the building.

SCA-HAZ-1: Hazardous Building Materials and Site Contamination (#40) is functionally equivalent to Mitigation Measure HAZ-1b (Health and Safety Plan) by requiring a Health Safety Plan and would therefore replace the measure. Implementation of SCA-HAZ-1, and Mitigation Measures HAZ-1a and HAZ-1c of the Uptown EIRs would reduce potential impacts associated with exposure of construction workers and/or the public to hazardous materials from contaminated soil and groundwater during construction activities to a less-than-significant level.

The Uptown EIRs found that potentially significant impacts could result from development of parcels with soil and/or groundwater contamination that could expose future residents and workers to potentially hazardous concentrations of contaminants. This was identified as Impact HAZ-2. Impacts from volatile organic compounds including PCE and benzene have been detected in groundwater in areas southwest of the Proposed Project site. Groundwater sampling has not been performed at the Proposed Project site and soil quality has not been characterized. Based on the findings of the Phase I ESA, past uses of the Proposed Project site included a coal yard, a historical cleaner, and garages which potentially could have performed auto repair activities and may have utilized a gasoline UST, as identified on a 1912 Sanborn map. These historic land uses may have resulted in contamination of soil and groundwater at the Proposed Project site.

The Uptown EIRs includes a two-part mitigation measure to address Impact HAZ-2 and reduce potential health risks to future site users to a less-than significant level. The first part (Mitigation Measure HAZ-2a) would eliminate potential exposure to contaminated groundwater by prohibiting use of shallow groundwater at the Proposed Project site, therefore eliminating exposures related to ingestion, and requiring that any on-going dewatering activities take place under the SGMP (as required by Mitigation Measure HAZ-1c).

The second part (Mitigation Measure HAZ-2b) would require that a Human Health Risk Assessment (HHRA) be conducted to incorporate the most recent investigation results and site-specific details regarding proposed project construction. Depending on the findings of the HHRA, recommendations may be made for administrative or engineering controls to minimize public exposure to hazardous materials, if warranted. These controls could potentially include vapor barriers for building foundations, encapsulation of the site with building foundations and paved parking surfaces to prevent exposure to soils, and implementation of an Operations and Maintenance Plan to insure prescribed controls are implemented and maintained.

Mitigation Measure HAZ-2b states that the HHRA shall employ methodology from the City of Oakland Urban Land Redevelopment: Guidance Document for the Oakland Risk Based Corrective Action program, which prescribes controls to ensure that any potential



additional health risks to future site users are reduced to a cumulative risk of less than  $1 \times 10^{-5}$ , and that HHRA shall be submitted to the City of Oakland and RWQCB for review and approval. The City of Oakland Urban Land Redevelopment: Guidance Document and use of a cumulative risk threshold of  $1 \times 10^{-5}$  are outdated practices. The requirement that the HHRA be submitted to the City of Oakland and RWQCB for review and approval would ensure that the current regulatory guidance for conducting HHRAs, including use of a cumulative risk threshold of  $1 \times 10^{-6}$  (or applicable threshold determined by the regulatory agency), would be implemented.

Mitigation Measure HAZ-2a and -2b of the Uptown EIRs would reduce potential impacts associated with potential exposure of future site users to contaminated soil and groundwater during operation of the Proposed Project to a less-than-significant level.

The Uptown EIRs found that potentially significant impacts could result from improper use or transport of hazardous materials during construction activities that could result in releases affecting construction workers and the general public. This was identified as Impact HAZ-3. Construction of the Proposed Project would involve the use and transport of hazardous materials. These materials could include contaminated soil and/or groundwater, building demolition debris containing hazardous materials, and fuels, oils, paints and other chemicals used during construction activities. Removal, relocation, or transportation of hazardous materials could result in accidental releases or spills and associated health risks to workers, the public, and environment. Mitigation Measures HAZ-3 of the Uptown EIRs indicates that implementation of Mitigation Measure HAZ-1b, which requires a Site Safety Plan, would establish procedures for the safe storage and use of hazardous materials at the Project site, if necessary; provide emergency response procedures; and designate personnel responsible for implementation of the Site Safety Plan.

Since SCA-HAZ-1: Hazardous Building Materials and Site Contamination (#40) would replace the requirement for a Health and Safety Plan under Mitigation Measures HAZ-1b, Mitigation Measure HAZ-3 is no longer applicable to the Proposed Project. In addition, the Proposed Project would be required to prepare a SGMP as required by Mitigation Measure HAZ-1c, and comply with SCA-HAZ-2: Hazardous Materials Related to Construction (#39), which would ensure that best management practices (BMPs) are implemented by the contractor during construction to minimize potential negative effects on groundwater, soils, and human health, which would replace the other requirements under Mitigation Measures HAZ-1b. The BMPs would include, at a minimum, the following:

- a. Follow manufacture's recommendations for use, storage, and disposal of chemical products used in construction.
- b. Avoid overtopping construction equipment fuel gas tanks.
- c. During routine maintenance of construction equipment, properly contain and remove grease and oils.

- d. Properly dispose of discarded containers of fuels and other chemicals.
- e. Implement lead-safe work practices and comply with all local, regional, state, and federal requirements concerning lead (for more information refer to the Alameda County Lead Poisoning Prevention Program).
- f. If soil, groundwater, or other environmental medium with suspected contamination is encountered unexpectedly during construction activities (e.g., identified by odor or visual staining, or if any underground storage tanks, abandoned drums or other hazardous materials or wastes are encountered), the Proposed Project applicant shall cease work in the vicinity of the suspect material, the area shall be secured as necessary, and the applicant shall take all appropriate measures to protect human health and the environment. Appropriate measures shall include notifying the City and applicable regulatory agency(ies) and implementation of the actions described in the City's Standard Conditions of Approval, as necessary, to identify the nature and extent of contamination. Work shall not resume in the area(s) affected until the measures have been implemented under the oversight of the City or regulatory agency, as appropriate.

Implementation of Mitigation Measure HAZ-1c and compliance with SCA-HAZ-1: Hazardous Building Materials and Site Contamination (#40) and SCA-HAZ-2: Hazardous Materials Related to Construction (#39) would reduce potential impacts associated with improper use or transport of hazardous materials during construction of the Proposed Project to a less-than-significant level.

*Hazardous Materials within a Quarter-Mile of a School (Criterion VII.b)*

The Uptown EIRs found that potentially significant impacts could result from hazardous emissions or the handling of hazardous materials, substances, or waste within ¼-mile of a school due to handling of hazardous materials during construction activities; the excavation of potentially contaminated soils, in the absence of dust control, could migrate and affect a nearby school site. This was identified as Impact HAZ-5. Oakland School for the Arts, at 530 18<sup>th</sup> Street, is located approximately 650 feet southwest of the Proposed Project site. No other schools are located within a ¼-mile of the Proposed Project site.<sup>69</sup> Mitigation Measures HAZ-5 of the Uptown EIRs indicates that implementation of Mitigation Measure HAZ-1b, which requires a Site Safety Plan, would reduce potential impacts related to hazardous emissions or the handling of hazardous materials, substances, or waste within ¼-mile of a school to a less-than-significant level.

Compliance with SCA-HAZ-1: Hazardous Building Materials and Site Contamination (#40) and SCA-HAZ-2: Hazardous Materials Related to Construction (#39) would replace the requirements under Mitigation Measures HAZ-1b, would reduce potential impacts of the

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<sup>69</sup> California Department of Education, 2016. California School Directory. <http://www.cde.ca.gov/re/sd/>, accessed October 26, 2016.

Proposed Project related to hazardous emissions or the handling of hazardous materials, substances, or waste within ¼-mile of a school to a less-than-significant level.

*Emergency Access Routes (Criterion VII.c)*

The Uptown EIRs found that no roadways would be removed as a result of the Uptown Project, and that development of additional roadways would shorten existing block lengths and improve emergency access. Consistent with the findings of the Uptown EIRs, the proposed project would not alter roadways in the area, and therefore would not impact the emergency access routes or impair implementation of an emergency response plan or emergency evacuation plan. Figure 7.2 of the Safety Element of the City of Oakland General Plan<sup>70</sup> indicates that the emergency evacuation routes in the vicinity of the Proposed Project site include Telegraph Avenue, Broadway, San Pablo Avenue, and West Grand Avenue. Construction of the Proposed Project may require temporary closure of portions of adjacent streets, including Telegraph Avenue. Traffic control requirements imposed by the City for the permitting of temporary closure of streets areas would ensure that appropriate emergency access is maintained at all times during construction activities. Therefore, the Proposed Project would have a less-than-significant impact related to emergency access and evacuation.

**Conclusion**

The Proposed Project would adhere to the mitigation measures of the Uptown EIRs and SCAs which relate to potentially contaminated soil and groundwater and hazardous materials handling. Based on an examination of the analysis, findings, and conclusions of the Uptown EIRs, and the review of current information available on regulatory agency databases regarding hazardous materials release sites in the vicinity of the Proposed Project, implementation of the Proposed Project would not increase the severity of potentially significant impacts identified in the Uptown EIRs, nor would it result in new potentially significant impacts related to hazards and hazardous materials that were not identified in the Uptown EIRs. The following SCAs and mitigation measures would be applicable to the Proposed Project: SCA-HAZ-1: Hazardous Building Materials and Site Contamination (#40), SCA-HAZ-2: Hazardous Materials Related to Construction (#39), and Mitigation Measure HAZ-1a and -1c, and Mitigation Measure HAZ-2a and -2b. These SCAs and mitigation measures are included in Attachment A: Standard Conditions of Approval and Mitigation Monitoring and Reporting Program.

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<sup>70</sup> City of Oakland, 2004. General Plan, Safety Element, Amended 2012.

<http://www2.oaklandnet.com/government/o/PBN/OurServices/GeneralPlan/DOWD009020>, accessed October 12, 2016.

**H. HYDROLOGY AND WATER QUALITY**

Would the project:	Equal or Less Severity of Impact Previously Identified in the Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
a. Violate any water quality standards or waste discharge requirements; result in substantial erosion or siltation on or off site that would affect the quality of receiving waters; create or contribute substantial runoff that would be an additional source of polluted runoff; otherwise substantially degrade water quality; or fundamentally conflict with the City of Oakland Creek Protection Ordinance (Oakland Municipal Code Chapter 13.16) intended to protect hydrologic resources.	■	□	□
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of preexisting nearby wells would drop to a level that would not support existing land uses or proposed uses for which permits have been granted).	■	□	□
c. Create or contribute substantial runoff that would exceed the capacity of existing or planned stormwater drainage systems; or substantially alter the existing drainage pattern of the site or area, including through the alteration of the course, or increase the rate or amount of flow of a creek, river, or stream in a manner that would result in substantial erosion, siltation, or flooding, either on or off site.	■	□	□
d. Result in substantial flooding on or off site; place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, that would impede or redirect flood flows; place within a 100-year flood hazard area structures that would impede or redirect flood flows; or expose people or structures to a substantial risk of loss, injury, or death involving flooding.	■	□	□

### Previous CEQA Documents Findings

Hydrology and water quality were analyzed in the Program EIRs, and the impacts were found to be less than significant and no mitigation measures were required. The 2011 Renewal Plan EIR cited applicable SCAs that would ensure less-than-significant effects to hydrology and water quality. The 2010 Housing Element Update EIR identified no significant hydrology or water quality impacts and therefore no applicable mitigation measures or equivalent SCAs were cited.

The Uptown EIRs evaluated potential impacts related to hydrology and water quality. The EIRs, which considered new development on Block 8 including the Proposed Project site, concluded that impacts related to hydrology and water quality would be less than significant with implementation of the proposed mitigation measures. Potentially significant impacts related to water quality associated with project construction (Impact HYD-1), post-construction pollutants being transported to receiving waters (Impact HYD-2), and direct discharge of potentially contaminated dewatering effluent (Impact HYD-3) were identified for development of Block 8. All applicable mitigation measures adopted under the Uptown EIRs, or the City's equivalent SCAs, to reduce impacts related to water quality would be implemented under the Proposed Project, as described below. The analysis below demonstrates that no new or more severe impacts would occur under the Proposed Project relative to those identified in the Uptown EIRs.

### Project Analysis

#### *Water Quality and Creeks (Criterion VIII.a)*

As summarized above, the Uptown EIRs found three potentially significant impacts related to water quality. The Uptown EIRs also recommended three mitigation measures to reduce each of these impacts to less-than-significant levels: Mitigation Measure HYD-1: Preparation of stormwater pollution prevention plans (SWPPPs), Mitigation Measure HYD-2: Compliance with requirements detailed in the NPDES Permit No. CAS029718 for post-construction stormwater controls, and Mitigation Measure HYD-3: Incorporation of proper management of dewatering effluent into the SWPPP.

Since the certification of the Uptown EIRs, the City has adopted updated SCAs that are applicable to all development projects and are functionally equivalent to, or more protective, than the mitigation measures from the Uptown EIRs (listed above). The relevancy of each of these SCAs to the Proposed Project and the Uptown EIR mitigation measures is discussed below.

- SCA-HYD-1: Erosion and Sedimentation Control Plan for Construction (#45). The Proposed Project site is less than 1 acre, which is what would trigger the requirement for Mitigation Measure HYD-1: Preparation of SWPPPs, under the Construction General Permit issued by the State Water Resources Control Board. As a result, Mitigation Measure HYD-1 is not applicable to the Proposed Project. The Proposed Project would be required to comply with SCA-HYD-1 instead of Mitigation Measure HYD-1, which

would ensure the Proposed Project's impacts related to erosion and sedimentation would be less than significant consistent with the findings of the Uptown EIRs. In addition, the Proposed Project would be required to comply with SCA-HAZ-2: Hazardous Materials Related to Construction (#39) which requires BMPs to be implemented during construction to minimize potential negative effects on groundwater and receiving waters which could result from inappropriate handling of construction related hazardous materials (e.g., fuels, oils, and paints).

- SCA-HYD-2: NPDES C.3 Stormwater Requirements for Regulated Projects (#50). Because the Proposed Project site would replace over 10,000 square feet of existing impervious surface area, it would be required to comply with Provision C.3 requirements of the NPDES Municipal Regional Permit (Order R2-2009-0074, NPDES Permit No. CAS612008) consistent with SCA-HYD-2. Implementation of this SCA would fulfill the requirements of Mitigation Measure HYD-2 and ensure the Proposed Project would result in less-than-significant impacts related to post construction stormwater quality.
- SCA-HAZ-1: Site Contamination (#40). Dewatering may be necessary during construction of the Proposed Project. Implementation of SCA-HAZ-1, in place of Mitigation Measure HYD-3, would ensure that potentially contaminated groundwater is appropriately handled and disposed of to ensure that the Proposed Project's impacts related to dewatering would be less than significant, consistent with the findings of the Uptown EIRs.

The Proposed Project is located within a highly urbanized environment. There are no lakes, creeks or other surface waters in the immediate proximity. Lake Merritt (the nearest surface water body) is approximately 1,700 feet to the east and stormwater runoff from the Proposed Project site is conveyed to Lake Merritt via underground storm drains and culverts. The Uptown Project EIRs found that the Uptown Project would not include development that would substantially alter a natural watercourse because there are no creeks crossing or located near the Uptown Project. The Proposed Project would involve similar development in the same area as described in the Uptown EIRs. Therefore, the Proposed Project would not alter a natural watercourse.

*Use of Groundwater (Criterion VIII.b)*

As described in the Uptown EIRs, dewatering may be required during construction of below ground parking facilities. Consistent with the Uptown EIRs, dewatering may be required because the Proposed Project would include construction of a below ground parking/basement facility. The Uptown EIRs concluded that construction-related dewatering would be temporary and limited to the area of the Proposed Project site and would not substantially contribute to depletion of groundwater supplies or reduce the quality of groundwater. This remains true for the Proposed Project.

Operation of the Proposed Project would not involve dewatering or the use of groundwater as potable water is supplied to the site by East Bay Municipal Utility District. As a result, the Proposed Project's impacts related to the depletion of groundwater supplies would be less than significant. Additionally, no new or more severe impacts related to depletion of groundwater supplies or interference with groundwater recharge would occur.

*Stormwater Drainage and Drainage Patterns (Criterion VIII.c)*

Under existing conditions, the Proposed Project site is completely covered with impervious surfaces. Therefore, the amount of impervious surfaces would not increase under the Proposed Project. In addition, as described above under Criterion VIII.a, stormwater runoff from the Proposed Project site is currently conveyed to Lake Merritt via underground storm drains and culverts. Stormwater would continue to be conveyed through these same storm drains and culverts as part of the Proposed Project. For these reasons, the Proposed Project would not increase runoff and would not substantially alter the existing drainage pattern of the site or increase the risk of flooding, erosion, or sedimentation. Consistent with the findings of the Uptown EIRs, the Proposed Project's impacts related to stormwater drainage would be less than significant. Additionally, no new or more severe impacts would occur.

*Flooding and Substantial Risks from Flooding (Criterion VIII.d)*

As described in the Uptown EIRs, the Uptown Project is not located within a 100-year flood hazard area; therefore, development would not be subject to significant impacts with respect to storm-related flooding. Current floodplain mapping prepared by the Federal Emergency Management Agency indicates that the Proposed Project site remains outside the 100-year flood hazard area.<sup>71</sup> Therefore, the Proposed Project would not result in new or more severe impacts related to flooding.

**Conclusion**

Based on an examination of the analysis, findings, and conclusions of the Uptown EIRs, implementation of the Proposed Project would not increase the severity of significant impacts identified in the Uptown EIRs, nor would it result in new significant impacts related to hydrology and water quality that were not identified in the Uptown EIRs. The following SCAs would be applicable to the Proposed Project: SCA-HYD-1: Erosion and Sedimentation Control Plan for Construction (#45), SCA-HYD-2: NPDES C.3 Stormwater Requirements for Regulated Projects (#50), and SCA-HAZ-1: Hazardous Building Materials and Site Contamination (#40). These SCAs are included in Attachment A: Standard Conditions of Approval and Mitigation Monitoring and Reporting Program.

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<sup>71</sup> Federal Emergency Management Agency (FEMA), 2009. Flood Insurance Rate Map, Alameda County, California and Incorporated Areas, Panel 67 of 725, Map Number 06001C0067G. Effective August 3.

**I. LAND USE, PLANS, AND POLICIES**

Would the project:	Equal or Less Severity of Impact Previously Identified in the Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
a. Physically divide an established community.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Result in a fundamental conflict between adjacent or nearby land uses.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Fundamentally conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect and actually result in a physical change in the environment.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Previous CEQA Documents Findings**

Land use, plans, and policies were analyzed in the Program EIRs, and impacts were found to less than significant and no mitigation measures were required. The 2011 Renewal Plan EIR and the 2010 Housing Element Update EIR found all potential land use or policy impacts to be less-than-significant and therefore no mitigation measures or SCAs were required. The 1998 LUTE EIR cited a significant and unavoidable effect associated with policy inconsistencies with the Clean Air Plan (resulting from significant and unavoidable increases in criteria pollutants from increased traffic regionally). It identified mitigation measures, which largely align with current City of Oakland SCAs involving TDM and which apply to all projects within the City of Oakland.

The Uptown EIRs evaluated potential impacts to land use, plans, and policies. The EIRs, which considered new development on Block 8, including the Proposed Project site, concluded that impacts related to land use and policy would be less than significant and no mitigation measures would be needed.

**Project Analysis**

*Division of Existing Community, Conflict with Land Uses, or Land Use Plans (Criteria 9a through 9c)*

The Uptown EIRs concluded that although existing land uses within the Uptown area would be replaced with a mixture of uses, implementation of the Uptown Project would not physically divide an established community. Further the EIRs found beneficial effects associated with the resulting increase in population and additional commercial uses that would increase round-the-clock activity in the area and likely result in increased safety.



The Uptown EIRs concluded that the new development would not create any physical barriers that would impede access and no existing access would be permanently removed. The Proposed Project would result in the development of an 18-story building that would include a mix of uses, including residential, commercial-retail, and parking consistent with the overall scope of development analyzed in the Uptown EIRs, and – consistent with the findings of the Uptown EIRs – would increase residential density and population in the Uptown area further enhancing the community integrity.

The Uptown EIRs described surrounding land uses, which comprise commercial, residential, and institutional uses, as not of a type that would result in a fundamental land use conflict with proposed residential and commercial uses. The Uptown EIRs concluded that the intensification of uses within the site would benefit surrounding neighborhoods by increasing neighborhood activity and vibrancy. This remains true for the Proposed Project. Therefore consistent with the findings of the Uptown EIRs, no significant land use impacts related to division of a community or conflicts with other uses would result from the Proposed Project.

The Proposed Project’s General Plan land use classification is Central Business District which 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. The Proposed Project is consistent with the General Plan land use designation because it will provide a mixed-use, residential high-rise building with a mix of commercial space.

### **Conclusion**

Consistent with the findings of the Uptown EIRs, the Proposed Project would not result in any significant impacts related to land use or planning policies. Furthermore, based on an examination of the analysis, findings, and conclusions of the Uptown EIRs and the Program EIRs considered in this analysis, implementation of the Proposed Project would not substantially increase the severity of impacts identified in the Uptown EIRs or the previously mentioned Program EIRs. The Uptown EIRs did not identify any mitigation measures related to land use, plans and policies, and no City SCAs regarding land use, plans, and policies have been identified for the implementation of the Proposed Project.

**J. NOISE**

Would the project:	Equal or Less Severity of Impact Previously Identified in the Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
a. 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 recommend measures to reduce potential impacts (during the hours of 7 p.m. to 7 a.m. on weekdays and 8 p.m. to 9 a.m. on weekends and federal holidays, noise levels received by any land use from construction or demolition shall not exceed the applicable nighttime operational noise level standard); or generate noise in violation of the City of Oakland nuisance standards (Oakland Municipal Code Section 8.18.020) regarding persistent construction-related noise.	■	□	□
b. Generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code Section 17.120.050) regarding operational noise.	■	□	□
c. Generate noise resulting in a permanent increase in ambient noise levels in the project vicinity above levels of 5 A-weighted decibels (dBA) existing without the project; or under a cumulative scenario, the cumulative increase results in a 5-dBA permanent increase in ambient noise levels in the project vicinity without the project (i.e., the cumulative condition including the project compared to the existing conditions) and a 3-dBA permanent increase is attributable to the project (i.e., the cumulative condition including the project compared to the cumulative baseline condition without the project).	■	□	□
d. Expose persons to interior day/night noise level ( $L_{dn}$ ) or community noise equivalent level (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); expose the project	■	□	□

	Equal or Less Severity of Impact Previously Identified in the Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
<p>Would the project:</p> <ul style="list-style-type: none"> <li>to community noise in conflict with the land use compatibility guidelines of the Oakland General Plan after incorporation of all applicable SCAs; or expose persons to or generate 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]).</li> </ul>			
<p>e. During either project construction or project operation, expose persons to or generate groundborne vibration that exceeds the criteria established by the Federal Transit Administration (FTA).</p>	■	□	□

**Previous CEQA Documents Findings**

Noise was analyzed in the Program EIRs. The 2011 Renewal Plan EIR and the 2010 Housing Element Update EIR found impacts to be less than significant and no mitigation measures were required. The 1998 LUTE EIR identified significant and unavoidable impacts related to construction noise and vibration and cited applicable mitigation measures.

The Uptown EIRs evaluated potential impacts related to noise and found less-than-significant impacts related to train and aircraft noise. Less-than-significant impacts were also found related to construction vibration, operation vibration, and traffic noise as a result of the development of the Uptown area. The Uptown EIRs found that potentially significant impacts may result from construction noise on nearby existing receptors, noise exposure of new receptors occupying projects developed under the Uptown Project, and non-traffic related operational noise associated with new development on existing receptors within and adjacent to the Uptown area. However, mitigation measures were recommended to reduce all impacts to less-than significant levels

**Project Analysis**

The potential impacts of the Proposed Project are analyzed below and compared to the findings of the Uptown EIRs. The following two potential noise and vibration impacts are analyzed in more detail than in the Uptown EIRs: (1) potential construction-generated vibration; and (2) potential permanent traffic noise increase.

As the following analysis demonstrates, the Proposed Project and related impacts are consistent with what was analyzed in the Uptown EIRs, and no new or more severe impacts would be expected to occur.

*Construction Noise (Criterion X.a)*

An acoustical analysis was performed as part of this CEQA review process to evaluate potential noise impacts during project construction. The findings of the acoustical analysis for project construction are summarized below.

Construction is expected to occur over a period of approximately 26 months and would temporarily increase noise levels in the vicinity of the Proposed Project site. Construction noise levels would vary from day to day, depending on the quantity and condition of the equipment being used, the types and duration of activity being performed, the distance between the noise source and the receptor, and the presence or absence of barriers, if any, between the noise source and receptor. Demolition, excavation/grading, and foundation work are typically the noisiest phases of construction, and would occur during the first phases of construction. The later phases of construction include activities that are typically quieter and that occur within the building under construction, thereby providing a barrier for noise between the construction activity and any nearby receptors. Although pile driving can generate extreme levels of noise, pile-driving is not proposed as part of the Proposed Project. If piles are required in the construction of the Proposed Project, they would be predrilled.<sup>72</sup>

The nearest sensitive receptors<sup>73</sup> to the Proposed Project site are apartment buildings located approximately 100 feet from the southwestern corner of the Proposed Project site across Thomas L. Berkley Way (20<sup>th</sup> Street) and Telegraph Avenue. Other nearby receptors to the Proposed Project site include a retail store located approximately 90 feet from the western border of the Proposed Project site across Telegraph Avenue, a restaurant and a theater (Paramount Theater) adjacent to the northern border of the Proposed Project site, and retail buildings adjacent to the eastern border of the Proposed Project site. The apartment buildings have windows facing the Proposed Project site, while all the other receptors have solid walls facing the Proposed Project site. In addition, the Paramount Theater contains interior insulation to reduce exterior noise, and generally hosts events during the evening. Another building, which is under construction, is located approximately 70 feet from the southern border of the Proposed Project site across Thomas L. Berkley Way (20<sup>th</sup> Street), and is not considered a sensitive receptor because neither noise-sensitive people nor noise-sensitive activities are located in a building under construction.

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<sup>72</sup> Charles Zakskorn of ZCON Builders, 2016. Personal communication with Kaitlin Fitzmahan of Urban Planning Partners Inc. November 11.

<sup>73</sup> Legal residences, schools, childcare facilities, health care or nursing home, public open space, or similarly sensitive land uses. (Refer to City of Oakland CEQA thresholds of significance guidelines.)

Table 20 shows typical noise levels associated with various types of construction equipment that may be used during each phase of construction. Because noise increases at a rate of 6 dBA for each halving of distance, and because the adjacent restaurant, theater, and retail buildings are located within 1-foot of the Proposed Project site, the noisiest heavy equipment used during construction of the Proposed Project could generate exterior noise levels greater than 100 dBA at these buildings when the heavy equipment is operating at its nearest point. Noise levels from construction activities could also exceed the 65 dBA long-term construction noise standard at the apartment buildings and exceed the 70 dBA long-term construction noise standard at the retail store across Telegraph Avenue. However, it should be noted that a typical building façade with windows closed reduces noise by 25 dBA, and a typical exterior wall with one layer of gypsum board on the interior and wood siding or stucco on the exterior reduces noise by about 40 dBA.<sup>74</sup> Therefore, as shown in Table 20, interior noise levels at nearby receptors would be substantially lower than exterior noise levels. In addition, as discussed above, the Paramount Theater contains interior insulation that would reduce exterior noise.

Also, it should be noted that the use of heavy construction equipment would occur at different locations across the site. Therefore, the duration and frequency that heavy construction equipment would operate within 1-foot of the adjacent receptors would be limited on any given day and would not be expected to last more than a few days at a time. In addition, once the external structure has been erected, the noisiest phases of construction would be complete and noise from heavy construction equipment inside of the structure would be attenuated by the structure itself.

The City adopted SCAs since certification of the Uptown EIRs that are functional equivalents to, or more protective, than the mitigation measures from the Uptown EIRs. Although construction-generated noise could temporarily result in the exposure of the nearby receptors to noise levels in excess of the Noise Ordinance Standards, the implementation of applicable SCAs would lessen the impacts of construction period noise. The relevancy of each of these SCAs to the Proposed Project and the Uptown EIR mitigation measures is described below.

- SCA-NOI-1: Construction Days/Hours (#58). This SCA provides limits on the days and hours of standard construction activities to avoid generating noise when it would be most objectionable to neighboring residences. These limitations, which specify that construction activities would be limited to between 7:00 a.m. and 7:00 p.m. Monday through Friday (among other restrictions), would prevent the disturbance of sleep for a majority of residents located close to the Proposed Project site. Limiting construction to normal daytime hours would also prevent the disturbance of operation of the Paramount Theater because it generally hosts events during the evening. This SCA

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<sup>74</sup> Charles M. Salter Associates Inc., 1998. Acoustics – Architecture, Engineering, the Environment.

**TABLE 20 REFERENCE AND CALCULATED NOISE LEVELS FROM CONSTRUCTION EQUIPMENT, DBA**

<b>Equipment</b>	<b>Reference Noise Level at 50 Feet (dBA)</b>	<b>Calculated Interior Noise Level at 50 Feet (dBA) with Windows Closed/Solid Walls</b>
Excavator	85	60/45
Concrete/Industrial Saw	76	51/36
Rubber Tired Dozer	85	60/45
Tractor/Loader/Backhoe	80	55/40
Crane	88	63/48
Cement and Mortar Mixer	85	60/45
Paver	89	64/49
Roller	74	49/34
Air Compressor	81	56/41

Notes: Note that these noise levels do not take into account measures after the implementation of SCAs for future noise reductions.

The types of construction equipment are based on the California Emissions Estimator Model (CalEEMod) equipment list (see Air Quality Section and Attachment G). Excavator, although not listed on the CalEEMod equipment list, could potentially be used for predrilled piles.

A typical building facade with windows closed provides a noise level reduction of approximately 25 dBA, and a typical exterior wall with one layer of gypsum board on the interior and wood siding or stucco on the exterior reduces noise by about 40 dBA. Therefore, interior noise levels with windows closed were calculated by reducing exterior noise levels by 25 dBA, and interior noise levels with solid walls were calculated by reducing exterior noise levels by 40 dBA.

Source: Federal Transit Administration (FTA), 2006. Transit Noise and Vibration Impact Assessment. FTA-VA-90-1003-06. May. U.S. Department of Transportation (U.S. DOT), 2006. FHWA Highway Construction Noise Handbook.

also requires property owners and occupants within 300 feet of the Proposed Project site to be notified of such an extension. Implementation of this SCA would fulfill the requirements of Mitigation Measure NOISE-1a.

- SCA-NOI-2: Construction Noise (#59). This SCA requires all construction projects to implement basic noise reduction measures during construction. Since pile driving is not proposed as part of the Proposed Project and the construction of the Proposed Project could generate noise levels greater than 100 dBA at the adjacent restaurant, theater, and retail buildings, and exceeding the long-term construction noise standard at the apartment buildings and the retail store across Telegraph Avenue, the Proposed Project would be required to comply with SCA-NOI-3: Extreme Construction Noise (#60) instead of Mitigation Measure NOISE-1c, that requires that the Proposed Project applicant prepare and implement a Construction Noise Management Plan that contains site-specific noise attenuation measures to reduce construction impacts associated

with extreme noise generating activities. The types of measures that would effectively reduce construction noise to less-than-significant levels that may be included in the Construction Noise Management Plan include the following (the preparer of the Construction Noise Management Plan would have the flexibility to apply the appropriate measures to achieve applicable thresholds):

- Temporary noise barriers will be placed between the proposed construction activities and nearby receptors. The noise barriers may be constructed from plywood and installed on top of a portable concrete K-Rail system to be able to move and/or adjust the wall location during construction activities. A sound blanket system hung on scaffolding, or other noise reduction materials that result in an equivalent or greater noise reduction than plywood, may also be used. The composition, location, height, and width of the barriers during different phases of construction will be determined by a qualified acoustical consultant and incorporated into the Construction Noise Management Plan for the Proposed Project.
- Best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds) will be used for project equipment and trucks during construction wherever feasible. For example, exhaust mufflers on pneumatic tools can lower noise levels by up to about 10 dBA and external jackets can lower noise levels by up to about 5 dBA.
- Noise control blankets will be utilized on the building structure as the building is erected to reduce noise emission from the site. The use of noise control blankets will particularly be targeted to cover the levels of the building that have line of sight with the windows of nearby receptors;
- Construction equipment will be positioned as far away from noise-sensitive receptors as possible. The Proposed Project site is surrounded by hard surfaces, and therefore, for every doubling of the distance between a given receptor and construction equipment, noise will be reduced by approximately 6 dBA.

The incorporation of the appropriate noise attenuation measures into the Construction Noise Management Plan required by SCA-NOI-3: Extreme Construction Noise (#60) would substantially reduce the impact of construction generated noise on nearby receptors. Implementation of SCA-NOI-3 would fulfill the requirements of Mitigation Measure NOISE-1d. In addition, implementation of SCA-NOI-2: Construction Noise (#59), SCA-NOI-3, and SCA-NOI-4: Construction Noise Complaints (#62) (discussed below) together would fulfill the requirements of Mitigation Measure NOISE-1b.

- SCA-NOI-4: Construction Noise Complaints (#62) provides additional measures to respond to and track construction noise complaints during construction to allow sources of potentially disruptive construction noise to be quickly controlled or

eliminated. SCA-NOI-4 is functionally equivalent, and more protective than, Mitigation Measure NOISE-1e and therefore this SCA supersedes.

The proximity of the Proposed Project site to sensitive receptors, and the type of construction equipment that would be used as part of the Proposed Project, are similar to other projects in downtown Oakland and other urban areas. Because the Proposed Project site and its vicinity are part of an established, urbanized area, periodic exposure to construction-related noise and vibration are existing conditions. Implementation of the City of Oakland’s SCAs will reduce the impacts of noise generated by construction on receptors in the vicinity of the Proposed Project site to a less-than-significant level.

*Operational Noise (Criterion X.b)*

The primary noise generation from the long-term operation of the Proposed Project would occur as a result of the use of mechanical heating, ventilation, and air conditioning (HVAC) systems. Other operational noise would include delivery trucks for retail components. SCA-NOI-5: Operational Noise (#64) would require all operational noise to comply with the performance standards of Chapter 17.120 of the Oakland Planning Code and Section 8.18 of the Oakland Municipal Code. Therefore, with the implementation of SCA-NOI-5, the Proposed Project would not violate the City of Oakland operational noise standards and the noise generated by the HVAC systems and delivery trucks during the operation period of the Proposed Project would be less than significant. In addition, implementation of this SCA would fulfill the requirements of Mitigation Measure NOISE-3.

*Permanent Increase in Ambient Traffic Noise and Cumulative Noise Impact (Criterion X.c)*

In this analysis, vehicle trip generation during the AM and PM peak traffic hours on a project level (i.e., not broken down into intersections) was conservatively used to estimate the noise levels from vehicular traffic on area roads due to the Proposed Project. The results are compared to existing noise levels to determine whether the noise generated by traffic from the Proposed Project would increase noise levels in the vicinity of the Proposed Project site. The results of this analysis are presented in Table 21.

As indicated in Criterion X.c, a project is considered to generate a significant increase in ambient traffic noise if it results in a 5-dBA permanent increase in noise levels in the project vicinity. As discussed above, ambient noise levels in the Proposed Project vicinity from traffic along I-980 are approximately 65–70 dBA  $L_{dn}$ . Generally, during the peak traffic hour under normal traffic conditions,  $L_{dn}$  is within plus or minus 2 dBA of the  $L_{eq}$ .<sup>75</sup> Therefore, the existing AM and PM peak hour traffic noise levels in the Proposed Project vicinity range from approximately 63–72 dBA  $L_{eq}$ .

As indicated in Table 21, AM and PM peak hour traffic volumes would generate noise levels of approximately 52.0 and 52.4 dBA  $L_{eq}$ , respectively, at 50 feet from the centerline of the road. Ambient noise levels are more than 10 dBA higher than the potential traffic

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<sup>75</sup> California Department of Transportation (Caltrans), 1998. Technical Noise Supplement, October.



noise generated by the Propose Project. As discussed above, when the difference between two co-located sources of noise is 10 dBA or more, the higher noise source dominates and the lower noise source makes no perceptible difference in what people can hear or measure. Consequently, the potential of the Proposed Project to increase ambient noise by increasing vehicular traffic on area roads is less than significant.

**TABLE 21      AMBIENT NOISE, PROJECT TRAFFIC VOLUMES, AND PREDICTED TRAFFIC NOISE**

	<b>Trips Generated by the Proposed Project</b>	<b>Project- Generated Traffic Noise (dBA Leq at 50 Feet)</b>	<b>Ambient Noise Levels (dBA Leq)</b>	<b>Estimated Maximum Increase in Ambient Noise (dBA Leq)</b>
AM Peak Hour	100	52.0	63-72	0
PM Peak Hour	111	52.4	63-72	0

Notes: FHWA TNM Version 2.5 model was used to estimate project-generated traffic noise. Analysis assumes that all the trips are generated by vehicles at a speed of 30 miles per hour. Traffic noise model outputs are included in Appendix H. Source: Fehr & Peers, 2016. 2016 Telegraph Avenue – Trip Generation and Study Intersection Selection, August 30.

As indicated in Criterion X.c, a project is considered to contribute to a significant cumulative impact if (1) the cumulative increase results in a 5-dBA permanent increase in ambient noise levels in the project vicinity, and (2) 3 dBA of the cumulative increase is attributable to the project. Under a cumulative scenario, which considers traffic generated by past, present, and probable future projects, including the Proposed Project, portions of the Uptown Project area could be exposed to noise levels between 65 dBA CNEL and 75 dBA CNEL. This noise level could exceed the 5-dBA significance threshold for cumulative impacts because the existing ambient noise levels are approximately 65-70 dBA  $L_{dn}$ . However, the largest contribution from the Uptown Project (including the Proposed Project) to the cumulative increase would be 1.6 dBA, which is below the 3-dBA cumulative contribution significance threshold. Although the Proposed Project would include development at a scale larger (i.e. more stories and potentially more project-generated traffic) than the development considered for this parcel in the Uptown EIRs, the Proposed Project is within the overall scope of development considered in the Uptown EIRs and the increase in vehicular traffic on area roads due to the Proposed Project would not be significant from a noise perspective, as discussed above. Therefore, the Proposed Project is not expected to make a cumulatively considerable contribution to ambient noise levels during project operation.

*Noise Exposure during Construction and Operation (Criterion X.d)*

Construction workers could be exposed to excessive noise from the heavy equipment used during construction of the Proposed Project (Table 20). However, noise exposure of

construction workers is regulated by the California Occupational Safety and Health Administration (Cal/OSHA). Title 8, Subchapter 7, Group 15, Article 105 of the California Code of Regulations (Control of Noise Exposure) sets noise exposure limits for workers, and requires employers who have workers that may be exposed to noise levels above these limits to establish a hearing conservation program, make hearing protectors available, and keep records of employee noise exposure measurements. The construction contractor for the Proposed Project would be subject to these regulations, and compliance with these Cal/OSHA regulations will ensure that the potential of construction workers to be exposed to excessive noise is less than significant.

Occupants of the Proposed Project would be subject to ambient outdoor noise levels that range from 65 to 70 dBA  $L_{dn}$ .<sup>76</sup> This noise environment is regarded as “conditionally acceptable” to “normally unacceptable” for residential and commercial land uses. The City of Oakland General Plan indicates that development within a “conditionally acceptable” environment requires an analysis of noise-reduction requirements, and if necessary, noise-mitigation features in the design. Development within a “normally unacceptable” environment may be undertaken only if a detailed analysis of the noise-reduction requirements is conducted, and if highly effective noise insulation and abatement features are included in the design. The implementation of SCA-NOI-6: Exposure to Community Noise (#63) would enforce compliance of the City of Oakland General Plan’s community noise exposure level requirements. Implementation of this SCA would fulfill the requirements of Mitigation Measure NOISE-2. Impacts to the environment as they relate to ambient noise are not within the scope of the required CEQA analysis. The information above and below are provided for informational use only.

SCA-NOI-6: Exposure to Community Noise (#63) requires noise reduction measures to be incorporated into building design based upon the recommendations of a qualified acoustical engineer. The noise reduction measures would be required to reduce interior noise levels to 45 dBA  $L_{dn}$  for residential units and 50 dBA  $L_{eq}$  for commercial spaces. These noise levels are consistent with the requirements of the California Building Code, described above. Sound Transmission Class (STC) rated windows, exterior doors (such as balcony doors), and exterior walls are commonly used to control interior noise from exterior sources. A STC rating roughly equals the decibel reduction in noise volume that a wall, window, or door can provide.<sup>77</sup> Given that the ambient noise environment at the Proposed Project site currently ranges from about 65 to 70 dBA  $L_{dn}$ , the use of sound-rated windows, exterior doors, and exterior walls with STC ratings ranging from about STC 20 to about STC 25 would need to be used in order to reduce interior noise levels from exterior sources to about 45 dBA  $L_{dn}$  for residential units and 50 dBA  $L_{eq}$  for commercial spaces, thereby satisfying the interior noise standards for both residential and commercial spaces. The noise control measures are required to be submitted to the City of Oakland

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<sup>76</sup> City of Oakland, 2005. City of Oakland General Plan, Noise Element, March.

<sup>77</sup> U.S. Department of Housing and Urban Development (HUD), undated. Noise Notebook, Chapter 4 Supplement, Sound Transmission Class Guidance.

for review and approval prior to the issuance of a construction-related permit. Compliance with SCA-NOI-6 would therefore reduce the potential of future occupants of the proposed development to be exposed to noise in excess of standards to a less-than-significant level.

*Construction and Operational Vibration (Criterion X.e)*

Construction activities can result in varying degrees of ground vibration, depending on the equipment, activity, and relative proximity to sensitive receptors. The vibration levels for construction equipment that could be used at the Proposed Project site are summarized in Table 22. Although the table provides one vibration level for each piece of equipment, it should be noted that there is considerable variation in reported ground vibration levels from construction activities, primarily due to variation in soil characteristics. Vibration levels are calculated at 1 foot, 90 feet, and 100 feet based on the reference levels at 25 feet (which is also shown in Table 22). It should be noted that the Proposed Project site's proximity to sensitive receptors, and the type of construction equipment that would be used as part of the Proposed Project, are similar to other projects in downtown Oakland and other urban areas. It is a common characteristic of urban infill projects.

Table 23 and Table 24 summarize the vibration criteria to prevent disturbance of occupants and to prevent damage to structures, respectively. In this analysis, the "Infrequent Events" criterion is applied to construction equipment.

Based on the estimated construction equipment generated vibration levels in Table 22, construction-generated vibration levels may be as high as 136 RMS VdB at the adjacent receptors and 76 RMS VdB at the apartment buildings when the equipment is at its nearest point.

This vibration level would not exceed the 80 RMS VdB Infrequent Events threshold for the apartment buildings, but could exceed the 83 RMS VdB Infrequent Events threshold for the adjacent restaurant, theater, and retail buildings (Table 23), and potentially disturb occupants of nearby buildings. However, the vibration would be temporary since the locations of grading, soil compaction, and other construction activities that would require the use of construction equipment with the potential to exceed the 83 RMS VdB Infrequent Events threshold would vary over time across the site, and therefore the impacts of these activities on any given receptor would not be expected to last more than a few days at a time.

In addition, SCA-NOI-1: Construction Days/Hours (#58) limit construction activities to the hours between 7:00 a.m. and 7:00 p.m. Monday through Friday, and limits construction with the potential to generate extreme noise (which is often correlated with the potential to generate high vibration) to the hours between 8:00 a.m. and 4:00 p.m. This restricts any impact to normal daytime hours, thereby reducing the likelihood of disturbance of residents (i.e., through interfering with sleep), and occupants of nearby buildings.

**TABLE 22 VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT**

Equipment	Reference				Reference RMS at 25 Feet (VdB)	RMS at 1 Foot (VdB)	RMS at 90 Feet (VdB)	RMS at 100 Feet (VdB)
	PPV at 25 Feet (in/sec)	PPV at 1 Foot (in/sec)	PPV at 90 Feet (in/sec)	PPV at 100 Feet (in/sec)				
Caisson Drilling	0.089	11.125	0.013	0.011	87	129	70	69
Vibratory Roller	0.210	26.250	0.031	0.026	94	136	77	76
Large Bulldozer	0.089	11.125	0.013	0.011	87	129	70	69
Small Bulldozer	0.003	0.375	<0.001	<0.001	58	100	41	40

Notes: Based on vibration levels at 25 feet, the following propagation adjustment was applied to estimate PPV vibration levels at 1 foot, 90 feet, and 100 feet assuming:

$$PPV2 = PPV1 \times (D1/D2)^{1.5}$$

Where: PPV1 is the reference vibration level at a specified distance.

PPV2 is the calculated vibration level.

D1 is the reference distance (in this case 25 feet).

D2 is the distance from the equipment to the receiver.

Based on vibration levels at 25 feet, the following propagation adjustment (FTA, 2006) was applied to estimate RMS vibration levels at 1 foot, 90 feet, and 100 feet assuming:

$$RMS2 = RMS1 - 30 \log_{10} (D2/D1)$$

Where: RMS1 is the reference vibration level at a specified distance.

RMS2 is the calculated vibration level.

D1 is the reference distance (in this case 25 feet).

D2 is the distance from the equipment to the receiver.

Source: Federal Transit Administration (FTA), 2006. Transit Noise and Vibration Impact Assessment. FTA-VA-90-1003-06. May.

**TABLE 23 VIBRATION CRITERIA TO PREVENT DISTURBANCE – RMS (VdB)**

Land Use Category	Frequent Events <sup>a</sup>	Occasional Events <sup>b</sup>	Infrequent Events <sup>c</sup>
Residences and buildings where people normally sleep	72	75	80
Institutional land uses with primarily daytime use	75	78	83

<sup>a</sup> More than 70 vibration events of the same kind per day or vibration generated by a long freight train.

<sup>b</sup> Between 30 and 70 vibration events of the same kind per day.

<sup>c</sup> Fewer than 30 vibration events of the same kind per day.

Source: Federal Transit Administration (FTA), 2006. Transit Noise and Vibration Impact Assessment. FTA-VA-90-1003-06. May.

Therefore, the potential for construction generated vibration to disturb occupants of adjacent buildings is less than significant. Furthermore, construction vibration is exempt from the standard indicated in Chapter 17.120.060 of City of Oakland’s Municipal Code, and therefore, the vibration generated by construction would not have the potential to exceed any regulatory standards.

Since the nearest adjacent restaurant, theater, and retail buildings are within 1-foot of the Proposed Project site, vibration levels could exceed the 0.3 PPV in/sec threshold (Table 24 and potentially cause damage to buildings. The Paramount Theater is listed in the National Register of Historic Places and a historical resource pursuant to CEQA, and could therefore be particularly susceptible to vibration damage.<sup>78</sup>

**TABLE 24 VIBRATION CRITERIA TO PREVENT DAMAGE TO STRUCTURES**

<b>Building Category</b>	<b>PPV (in/sec)</b>	<b>RMS (VdB)</b>
Reinforced-concrete, steel or timber (no plaster)	0.5	102
Engineered concrete and masonry (no plaster)	0.3	98
Non-engineered timber and masonry buildings	0.2	94
Buildings extremely susceptible to vibration damage	0.12	90

Source: Federal Transit Administration (FTA), 2006. Transit Noise and Vibration Impact Assessment. FTA-VA-90-1003-06. May.

The presence of nearby receptors, including the historic building, and the relatively high project-generated vibration potential during construction would trigger implementation of SCA-CULT-1: Vibration Impacts on Adjacent Historic Structures or Vibration Sensitive Activities (#66), which would require preparation of a Vibration Analysis to establish pre-construction baseline conditions and threshold levels of vibration, and identify design means and methods of construction to protect adjacent historic structures or vibration-sensitive activities from being exposed to vibration that exceeds acceptable levels indicated in Table 24. Design considerations may include operating heavy-construction equipment as far away from vibration-sensitive sites as possible and not performing demolition, earth-moving, and other ground-impacting operations simultaneously. Implementation of the SCA would reduce the potential of construction-generated vibration to cause damage to adjacent buildings to a less-than-significant level.

As such, the Proposed Project does not include any sources that would generate vibration that would be perceptible to people during operational period.

**Conclusion**

The Proposed Project includes development at a scale larger (i.e., more stories) than the Block 8 considered in the Uptown EIRs, while remaining within the overall scope of development considered in the Uptown EIRs. A review of noise and vibration in the Proposed Project area determined that the noise and vibration environment remains largely unchanged since publication of the Uptown EIRs. Project-specific information has been considered in the preceding analysis to evaluate the noise and vibration impacts

<sup>78</sup> 2016 Telegraph Avenue Cultural Analysis.

associated with development of the Proposed Project, including the two potential noise impacts that were not addressed in detail in the Uptown EIRs: (1) the potential construction vibration impacts; and (2) the potential permanent increase in traffic noise resulting from the development of the Uptown area.

Based on an examination of the analysis, findings, and conclusions of the Uptown EIRs, implementation of the Proposed Project would not substantially increase the severity of significant impacts identified in the Uptown EIRs, nor would it result in new significant impacts related to noise and vibration that were not identified in the Uptown EIRs. The Proposed Project would adhere to the mitigation measures identified in the Uptown EIRs and City of Oakland SCAs to reduce construction noise and vibration, achieve interior noise standards, and require operational noise to meet applicable noise performance standards. The following SCAs are applicable to the Proposed Project: SCA-NOI-1: Construction Days/Hours (#58), SCA-NOI-2: Construction Noise (#59), SCA-NOI-3: Extreme Construction Noise (#60), SCA-NOI-4: Construction Noise Complaints (#62), SCA-NOI-5: Operational Noise (#64), SCA-NOI-6: Exposure to Community Noise (#63), and SCA-CULT-1: Vibration Impacts on Adjacent Historic Structures or Vibration Sensitive Activities (#66). These SCAs are included in Attachment A: Standard Conditions of Approval and Mitigation Monitoring and Reporting Program.

**K. POPULATION AND HOUSING**

Would the project:	Equal or Less Severity of Impact Previously Identified in the Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
a. 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.	■	□	□
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere in excess of that contained in the City’s Housing Element; or displace substantial numbers of people, necessitating the construction of replacement housing elsewhere in excess of that contained in the City’s Housing Element.	■	□	□

**Previous CEQA Documents Findings**

Population, housing, and employment were analyzed in the Program EIRs. The 2011 Renewal Plan EIR and the 2010 Housing Element Update EIR found all potential land use or policy impacts to be less-than-significant and therefore no mitigation measures or SCAs were required. The 1998 LUTE EIR cited a significant and unavoidable effect associated with increased employment in comparison to regional ABAG projections, and thus, an increase in housing demand. It identified mitigation measures that would implement of a data base of underutilized parcels to identify potential areas of growth.

The Uptown EIRs evaluated potential impacts to population and housing. The EIRs, which considered new development on Block 8, including the Proposed Project site, concluded that impacts related to population and housing for the Uptown Project would be less than significant and no mitigation measures or applicable SCAs would be required.

**Project Analysis**

*Population Growth and Displacement of Housing and People (Criteria XI.a and XI.b)*

The Proposed Project would replace the existing surface parking lot on the Proposed Project site, and construct a new mixed-use building with up to 230 residential units and approximately 4,622 square feet of retail space. The Proposed Project would not demolish

or displace any existing housing units. The Proposed Project’s impacts to population and housing would therefore be less than significant, as identified in the Uptown EIRs.

Through infill growth and development, the Proposed Project would accommodate both new residents and employees, as anticipated in the City’s 2015-2023 Housing Element Update (2014), the 2011 Renewal Plan EIR, the 1998 LUTE EIR, and the Uptown EIRs. The Proposed Project aligns with Oakland General Plan policies that support additional housing opportunities in proximity to employment centers, like Downtown, and alternative transportation options.

### **Conclusion**

Consistent with the findings of the Uptown EIRs, the Proposed Project would not result in any significant impacts related to population or housing. Further, based on an examination of the analysis, findings, and conclusions of the Uptown EIRs and the Program EIRs, implementation of the Proposed Project would not substantially increase the severity of impacts identified in the Uptown EIRs and the other Program EIRs. Nor would it result in new significant impacts related to population or housing that were not previously identified in the Uptown EIRs and Program EIRs. The Uptown EIRs did not identify any mitigation measures or SCAs related to population and housing, and none would be required for the Proposed Project.



**L. PUBLIC SERVICES, PARKS, AND RECREATION FACILITIES**

Would the project:	Equal or Less Severity of Impact Previously Identified in the Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
a. 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 any of the following public services: <ul style="list-style-type: none"> <li>▪ Fire protection</li> <li>▪ Police protection</li> <li>▪ Schools</li> <li>▪ Other public facilities</li> </ul>	■	□	□
b. Increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or include recreational facilities or require the construction or expansion of recreational facilities that might have a substantial adverse physical effect on the environment.	■	□	□

**Previous CEQA Documents Findings**

Public services, parks, and recreation were analyzed in the Program EIRs. The 2010 Housing Element Update EIR and 2011 Renewal Plan EIR found all potential public services impacts to be less-than-significant and therefore no mitigation measures or SCAs were required. The 2011 Renewal Plan EIR cited mitigation measures to address open space, requiring residential development to provide open space to comply with City regulations. These mitigation measures would reduce any potential impacts to be less-than-significant. The 1998 LUTE EIR cited a significant and unavoidable effect associated with firefighting and evacuation constraints. It identified a mitigation measure, which would require the construction of a fire station in the North Oakland Hills to address the increase in population and housing.

The Initial Study completed for the 2004 Uptown EIR determined that due to the Uptown Project site’s infill characteristics, no significant impacts relating to public services, parks, or recreation would occur and no further analysis was included in the Uptown EIRs.

## **Project Analysis**

### *Public Services and Parks and Recreation (Criteria 12a and 12b)*

The Proposed Project would create demands on public services typical of a mixed-use building containing 230 residential units with approximately 4,622 square feet of retail space. However, the development would occur in an urban area already served by public services and recreation facilities, and the Program EIRs have consistently determined that the anticipated growth would not impose a burden on existing public services to create a significant impact.

The Proposed Project is within the development envelope analyzed in the Uptown EIRs and the increase in demand for public services is consistent with that analysis, finding no significant impact. Compliance with standard City practices would further ensure the Proposed Project would have no significant impacts related to services. In addition, adherence to the General Plan's Open Space, Conservation and Recreation Element policies 3.1, 3.3, and 3.10 would ensure any potential impacts to recreational facilities are not significant.

The Proposed Project would increase student enrollment at local schools. Pursuant to Senate Bill 50, the Proposed Project sponsor would be required to pay school impact fees, which are established to offset potential impacts from new development on school facilities. This would be deemed full and complete mitigation. The Proposed Project could also cause a minor increase in demand for police and fire protection services; however, adherence to General Plan policies N.12.1, N.12.2, N.12.5, FI-1, and FI-2 would mitigate potential impacts to a less-than-significant level.

## **Conclusion**

Consistent with the findings of the Uptown EIRs, the Proposed Project would not result in any significant impacts related to public services, parks, and recreation. Further, based on an examination of the Uptown EIRs and the Program EIRs, implementation of the Proposed Project would not result in any increase in the severity of any previously identified impacts, nor would it result in new significant impacts related to public services, parks, and recreation that were not previously identified in the Uptown EIRs and Program EIRs. The Uptown EIRs did not identify any mitigation measures related to public services, parks, and recreation, and none would be required for the Proposed Project. The Proposed Project would be required to comply with SCA-PUB-1: Public Improvements (#11), which requires the project applicant to obtain all necessary permits/approvals for work related to streets, curbs, gutters, sidewalks, utilities, and fire hydrants.

**M. TRANSPORTATION AND CIRCULATION**

Would the project:	Equal or Less Severity of Impact Previously Identified in the Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
a. Conflict with a plan, ordinance, or policy addressing the safety or performance of the circulation system, including transit, roadways, bicycle and pedestrian facilities (except for automobile level of service or other measures of vehicle delay); or	■	<input type="checkbox"/>	<input type="checkbox"/>
b. Cause substantial additional vehicle miles traveled (per capita, per service population, or other appropriate efficiency measure); or	■	<input type="checkbox"/>	<input type="checkbox"/>
c. Substantially induce additional automobile travel by increasing physical roadway capacity in congested areas or by adding new roadways to the network.	■	<input type="checkbox"/>	<input type="checkbox"/>

**Previous CEQA Documents Findings**

Transportation and circulation were analyzed in the Program EIRs. The 2011 Renewal Plan EIR concluded that impacts relating to transportation and circulation would be less than significant after mitigation. The 1998 LUTE EIR and 2010 Housing Element Update EIR identified significant and unavoidable impacts related to level of service (LOS) on several roadway segments. However on September 21, 2016, the City of Oakland’s Planning Commission directed staff to update the City of Oakland’s CEQA Thresholds of Significance Guidelines related to transportation impacts consistent with Senate Bill 743 (Steinberg 2013), calling for a shift from traffic delay metrics to thresholds based on a Vehicle Miles Traveled standard (VMT). The revised thresholds remove automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion, as a significant impact on the environment pursuant to CEQA and replace them with the VMT standard. The VMT standard is discussed below.

The Uptown EIRs identified significant impacts related to intersection Levels of Service (LOS) at a number of intersections. However, as mentioned above, new VMT Thresholds have been adopted and are described below in further detail. This document summarizes the transportation related mitigation measures identified in the Uptown EIRs, their current status, and if they are applicable to the Proposed Project.

## Project Analysis

### *Conflicts with Plans, Ordinances, or Policies Relating to Safety, or Performance of the Circulation System (Criterion XIII.a)*

The Proposed Project would replace an existing surface parking lot with an 18-level residential building. The building would consist of 230 residential units and 5,300 square feet of ground-level commercial space, which this analysis conservatively assumes to be a restaurant. The Proposed Project proposes a parking garage with 88 stacker parking spaces and two ADA parking spaces. The garage driveway would be on Telegraph Avenue, about 50 feet north of Thomas L. Berkley Way (20<sup>th</sup> Street).

The Proposed Project is consistent with applicable plans, ordinances, and policies, and would not cause a significant impact by conflicting with adopted plans, ordinances, or policies addressing the safety and performance of the circulation system, including transit, roadways, bicycle lanes, and pedestrian paths (except for automobile level of service or other measures of vehicle delay).

The LUTE, as well as the City's Public Transit and Alternative Mode and Complete Streets policies, states a strong preference for encouraging the use of non-automobile transportation modes, such as transit, bicycling, and walking. The Proposed Project would encourage the use of non-automobile transportation modes by providing residential and commercial uses with minimal parking in a dense, walkable urban environment that is well-served by local and regional transit.

The Proposed Project is consistent with both the City's Pedestrian Master Plan and Bicycle Master Plan as it would not make major modifications to existing pedestrian or bicycle facilities in the surrounding areas and would not adversely affect installation of future facilities. Further, because the Proposed Project would generate more than 50 peak hour trips SCA-TRANS-1: Transportation and Parking Demand Management (#71) is required for the Proposed Project.

Overall, the Proposed Project would not conflict with adopted plans, ordinances, or policies addressing the safety and performance of the circulation system resulting in a less-than-significant impact and no mitigation measures are required.

### Consistency with Uptown EIRs

The Uptown EIRs identified significant cumulative impacts related to intersection Levels of Service (LOS) at a number of intersections. Although subsequent to the preparation of the Uptown EIRs, as mentioned above, new VMT Thresholds have been adopted by the City and are described below in further detail. The transportation-related mitigation measures identified in the 2004 Uptown EIR, their current status, and applicability to the Proposed Project are listed below.

- Mitigation Measures TRANS-1 and TRANS-6 at the San Pablo Avenue/Thomas L. Berkley Way (20<sup>th</sup> Street) intersection, TRANS-2 at the Telegraph Avenue/19<sup>th</sup> Street intersection, TRANS-4 at the San Pablo Avenue/27<sup>th</sup> Street intersection, TRANS-5 at the San Pablo Avenue/West Grand Avenue intersection, and TRANS-14 at the Castro Street/17<sup>th</sup> Street/ I-980 Off-Ramp intersection required optimizing signal timings. These mitigation measures are no longer applicable because the City of Oakland’s current practices incorporates basic signal timing changes into routine maintenance of the traffic signal system. Since 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, optimization of signal timings is no longer considered a mitigation measure. Thus, these mitigation measures are not applicable to the Proposed Project.
- Mitigation Measures TRANS-3 and TRANS-11 at the West Frontage Road/Grand Avenue intersection consisted of widening the intersection to provide additional travel lanes on the eastbound, southbound and northbound approaches of the intersection. The Uptown EIRs identified impacts at this intersection as significant and unavoidable as the improvements were determined to not be economically feasible and not within the City of Oakland’s jurisdiction as part of certifying the EIR. The City adopted a statement of overriding consideration which would also be applicable to the Proposed Project.<sup>79</sup> The 2012 Oakland Army Base Project Initial Study/Addendum also analyzed this intersection and identified a different mitigation measure, consisting of optimizing signal timings at the intersection and coordinating the signal timing with the adjacent intersections. This mitigation measure is included in the City of Oakland’s citywide Transportation Impact Fee (TIF) program. Thus, the Proposed Project can mitigate its contribution to the cumulative impact at this intersection by paying the applicable TIF.
- Mitigation Measures TRANS-7 at the Telegraph Avenue/West Grand Avenue intersection, TRANS-8 at the Telegraph Avenue/Thomas L. Berkley Way (20<sup>th</sup> Street) intersection, TRANS-9 at the Telegraph Avenue/William Street intersection, and TRANS-13 at the Harrison Street/Grand Avenue intersection consisted of increasing the signal cycle lengths at the intersections. The City of Oakland no longer considers increasing signal cycle lengths as a mitigation measure because it would result in increased wait time for pedestrians and conflict with the City’s policy

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<sup>79</sup> As described in the Uptown EIRs: The intersection of Frontage Road and West Grand Avenue is located on an elevated structure which is within the jurisdiction of Caltrans. Widening the existing structure would require additional support columns and the acquisition of right of way underneath the structure. In addition, the connector from the Interstate 880 to Interstate 80 structure exists above this intersection. Columns supporting this elevated connector may have to be relocated to widen the Frontage Road/West Grand Avenue intersection. The implementation of this mitigation measure was found to not be economically feasible. Because the intersection is located outside of the City of Oakland’s jurisdiction and it is was found not to be economically feasible, the Uptown EIRs found this impact significant and unavoidable.

goals to promote non-automobile travel. Thus, these mitigation measures are not applicable to the Proposed Project.

- Mitigation Measure TRANS-10 at the Telegraph Avenue/19<sup>th</sup> Street intersection consisted of optimizing signal timings at the intersection and restriping the westbound 19<sup>th</sup> Street approach to provide two exclusive through lanes and an exclusive right-turn lane. Implementation of this mitigation measure would result in additional automobile right-of-way which could potentially induce additional automobile travel by increasing physical roadway capacity in a congested area, potentially triggering new environmental impacts. In addition, the implementation of this mitigation measure may also conflict with planned Telegraph Avenue Complete Streets project. Thus, this mitigation measure is not applicable to the Proposed Project.
- Mitigation Measure TRANS-12 at the Mandela Parkway/West Grand Avenue intersection consisted of increasing the signal cycle length to 110 seconds, providing protected left-turn phasing on the eastbound and westbound approaches, and optimizing signal timings at the intersection. The City of Oakland no longer considers increasing signal cycle length as a mitigation measure because it would result in increased wait time for pedestrians and conflict with the City's policy goals to promote non-automobile travel. Furthermore, the West Oakland Specific Plan (WOSP) EIR analyzed and identified a significant impact at this intersection. The WOSP EIR did not identify any feasible mitigation measures at this intersection. The WOSP EIR's finding at this intersection supersedes the Uptown EIR finding because it was prepared more recently than the Uptown EIR. Thus, this mitigation measure is not applicable to the Proposed Project.

In addition, the Proposed Project would add fewer than 100 peak hour trips to all the signalized intersection listed above. According to the City of Oakland's Transportation Impact Review Guidelines (April 2017), evaluation of signalized intersections where the project would add fewer than 100 peak hour trips is not required because it is unlikely that the Proposed Project would cause a significant impact at these locations.

*Cause Substantial Additional Vehicle Miles Traveled (Criterion XIII.b)*

VMT Screening

Many factors affect travel behavior, including density of development, diversity of land uses, design of the transportation network, access to regional destinations, distance to high-quality transit, development scale, demographics, and transportation demand management. Typically, low-density development that is located at a great distance from other land uses, in areas with poor access to non-single occupancy vehicle travel modes generate more automobile travel compared to development located in urban areas, where a higher density of development, a mix of land uses, and travel options other than private vehicles are available.

Given these travel behavior factors, most of Oakland has a lower VMT per capita and VMT per employee ratios than the nine-county San Francisco Bay Area region. In addition, some neighborhoods of the city have lower VMT ratios than other areas of the city.

#### Vehicle Miles Traveled Estimate

Neighborhoods within Oakland are expressed geographically in transportation analysis zones, or TAZs. The Metropolitan Transportation Commission (MTC) Travel Model includes 116 TAZs within Oakland that vary in size from a few city blocks in the downtown core, to multiple blocks in outer neighborhoods, to even larger geographic areas in lower density areas in the hills. TAZs are used in transportation planning models for transportation analysis and other planning purposes.

The MTC Travel Model is a model that assigns all predicted trips within, across, or to or from the nine-county San Francisco Bay Area region onto the roadway network and the transit system, by mode (single-driver and carpool vehicle, biking, walking, or transit) and transit carrier (bus and rail) for a particular scenario.

The travel behavior from the MTC Travel Model is modeled based on the following inputs:

- Socioeconomic data developed by the Association of Bay Area Governments (ABAG).
- Population data created using 2000 US Census and modified using the open source PopSyn software.
- Zonal accessibility measurements for destinations of interest.
- Travel characteristics and automobile ownership rates derived from the 2000 Bay Area Travel Survey.
- Observed vehicle counts and transit boardings.

The daily VMT output from the MTC Travel Model for residential and office uses comes from a tour-based analysis. The tour-based analysis examines the entire chain of trips over the course of a day, not just trips to and from the Proposed Project site. In this way, all of the VMT for an individual resident or employee is included; not just trips into and out of the person’s home or workplace. For example: a resident leaves her apartment in the morning, stops for coffee, and then goes to the office. In the afternoon she heads out to lunch, and then returns to the office, with a stop at the drycleaners on the way. After work she goes to the gym to work out, and then joins some friends at a restaurant for dinner before returning home. The tour-based approach would add up the total amount driven and assign the daily VMT to this resident for the total number of miles driven on the entire “tour.”

Based on the MTC Travel Model, the regional average daily VMT per capita is 15.0 under 2020 conditions and 13.8 under 2040 conditions, and the regional average daily VMT per worker is 21.8 under 2020 conditions and 20.3 under 2040 conditions

### Thresholds of Significance for VMT

The following are thresholds of significance related to substantial additional VMT:

- For residential projects, a project would cause substantial additional VMT if it exceeds existing regional household VMT per capita minus 15 percent.
- For office projects, a project would cause substantial additional VMT if it exceeds the existing regional VMT per employee minus 15 percent.
- For retail projects, a project would cause substantial additional VMT if it results a net increase in total VMT.

The VMT impacts would be less than significant for a project if any of the following identified screening criteria are met:

1. Small Projects: The project generates fewer than 100 vehicle trips per day.
2. Low-VMT Areas: The project meets map-based screening criteria by being located in an area that exhibits below threshold VMT, or 15 percent or more below the regional average.
3. Near Transit Stations: The project is located in a Transit Priority Area or within a ½-mile of a Major Transit Corridor or Stop<sup>80</sup> and satisfies the following:
  - Has a Floor Area Ratio (FAR) of more than 0.75.
  - Does not include more parking for use by residents, customers, or employees of the project than other typical nearby uses, or more than required by the City (if parking minimums pertain to the site) or allowed without a conditional use permit (if minimums and/or maximums pertain to the site).
  - Is consistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Transportation Commission).

### VMT Impact Analysis

The section below describes how the Proposed Project would meet the VMT screening criteria. Specifically, the Proposed Project satisfies the Low-VMT Area (#2) and Near Transit Station (#3) criteria.

#### *Criterion #1: Small Projects*

The Proposed Project would generate more than 100 trips per day and therefore does not meet Criterion #1.

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<sup>80</sup> Major transit stop is defined in CEQA Section 21064.3 as a rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.



*Criterion #2: Low-VMT Area*

Table 25 describes the 2020 and 2040 VMT for TAZ 970, the TAZ in which the Proposed Project is located as well as applicable VMT thresholds of 15 percent below the regional average. The Proposed Project would provide less than 80,000 square feet of retail space, the retail is considered to be local serving and the VMT per worker criterion is used to screen the VMT for the commercial component of the Proposed Project.

As shown in Table 25, the 2020 and 2040 average daily VMT per capita and VMT per worker in the Proposed Project TAZ is more than 15 percent below the regional averages. Therefore, it is presumed that the Proposed Project would not result in substantial additional VMT and project impacts with respect to VMT would be less than significant.

**TABLE 25 DAILY VEHICLE MILES TRAVELED SUMMARY**

Land Use	Bay Area				TAZ 970	
	2020		2040		2020	2040
	Regional Average	Regional Average Minus 15%	Regional Average	Regional Average Minus 15%		
Residential (VMT per Capita) <sup>a</sup>	15.0	12.8	13.8	11.7	3.2	2.5
Commercial (VMT per Capita) <sup>b</sup>	21.8	18.5	20.3	17.3	12.5	10.6

<sup>a</sup> MTC Model results at [analytics.mtc.ca.gov/foswiki/Main/PlanBayAreaVmtPerCapita](http://analytics.mtc.ca.gov/foswiki/Main/PlanBayAreaVmtPerCapita), accessed November 2016.  
<sup>b</sup> MTC Model results at [analytics.mtc.ca.gov/foswiki/Main/PlanBayAreaVmtPerWorker](http://analytics.mtc.ca.gov/foswiki/Main/PlanBayAreaVmtPerWorker), accessed November 2016.  
 Source: Fehr & Peers, 2016.

*Criterion #3: Near Transit Stations*

The Proposed Project would be located less than 0.1 miles from the 19<sup>th</sup> Street BART Station and within 0.5-mile of several frequent bus corridors including: Broadway (Route 51A with 10 minute peak headways), and Thomas L. Berkley Way (20<sup>th</sup> Street) (Routes 72, 72M, and 72R, with 10 to 12 minute peak headways, and Route 6 with 10 minute peak headways). The Proposed Project would satisfy Criterion #3 because it would also meet the following three conditions for this criterion:

- The Proposed Project has an FAR of 9.6, which is greater than 0.75.
- The Proposed Project would include 78 parking spaces for the project residents, which corresponds to 0.34 parking space per unit. The Proposed Project would not designate any spaces for project visitors or retail employees. The City of Oakland Municipal Code Section 17.116.060 has no parking minimum requirement and allows a maximum of

1.25 spaces per unit for multi-family residential developments in the CBD-P zone. The number of parking spaces provided by the Proposed Project would be below the maximum parking supply allowed by the Municipal Code. Therefore, the Proposed Project would not provide more parking for use by residents, customers, or employees than other typical nearby uses, nor would it provide more parking than allowed by the City Code.

- The Proposed Project is located within the Downtown Priority Development Area (PDA) as defined by Plan Bay Area, and is therefore consistent with the region’s Sustainable Communities Strategy.

#### Vehicle Miles Travelled Screening Conclusion

The Proposed Project would satisfy the Low-VMT Area (#2) and the Near Transit Stations (#3) criteria and is therefore presumed to have a less-than-significant impact on VMT.

*Substantially induce additional automobile travel by increasing physical roadway capacity in congested areas or by adding new roadways to the network (Criterion XIII.c)*

The Proposed Project would not modify the roadway network surrounding the project site. Therefore, it would not increase the physical roadway capacity and would not add new roadways to the network, and would have a less-than-significant impact on inducing additional automobile traffic.

#### **Planning-Related Non-CEQA Issues Discussion**

This section discusses transportation-related topics that are not considerations under CEQA but are evaluated to inform decision makers and the public about these issues.

#### *Project Traffic Impact Analysis*

Although the City of Oakland is not considering automobile congestion as a CEQA topic, this document evaluates the impacts of the Proposed Project on intersection operations to inform decision makers and the public.

#### *Project Automobile Trip Generation*

Trip generation is the process of estimating the number of vehicles that would likely access the Proposed Project on any given day. Since the Proposed Project site includes existing uses that would be removed for construction of the Proposed Project, the trip generation accounts for the trips generated by the current site that would be eliminated. Table 26 summarizes the trip generation for the Proposed Project. Trip generation data published by the Institute of Transportation Engineers (ITE) in the *Trip Generation Manual* (Ninth Edition) was used as a starting point to estimate the vehicle trip generation. This trip generation estimate conservatively assumes that the commercial component of the Proposed Project would be a restaurant.

**TABLE 26 PROJECT VEHICLE TRIP GENERATION SUMMARY**

Land Use	Units <sup>a</sup>	ITE Code	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Apartment	230 DU	220 <sup>b</sup>	1,530	24	94	118	93	50	143
Restaurant	5.3 KSF	932 <sup>c</sup>	670	31	26	57	31	21	52
<i>Subtotal</i>			2,200	55	120	175	124	71	195
<i>Non-Auto Reduction (-43%)<sup>d</sup></i>			-950	-24	-51	-75	-53	-31	-84
<b>Net New Project Trips</b>			<b>1,250</b>	<b>31</b>	<b>69</b>	<b>100</b>	<b>71</b>	<b>40</b>	<b>111</b>

<sup>a</sup> DU = Dwelling Units, KSF = 1,000 square feet.

<sup>b</sup> ITE Trip Generation (9th Edition) land use category 220 (Apartment- Adj. Streets, 7-9 AM, 4-6 PM):

Daily:  $T = 6.65 * (X)$

AM Peak Hour:  $T = 0.51 * (X)$  (20% in, 80% out)

PM Peak Hour:  $T = 0.62 * (X)$  (65% in, 35% out)

<sup>c</sup> ITE Trip Generation (9th Edition) land use category 932 (High-Turnover (Sit-Down) Restaurant):

Daily:  $T = 127.15 * (X)$

AM Peak Hour:  $T = 10.81 * (X)$  (55% in, 45% out)

PM Peak Hour:  $T = 9.85 * (X)$  (60% in, 40% out)

<sup>d</sup> The 43% reduction is based on data from the *City of Oakland Transportation Impact Study Guidelines* for development in an urban environment within 0.5 miles of a BART station.

Source: Fehr & Peers, 2017.

The ITE’s Trip Generation Manual (Ninth Edition) is primarily based on data collected at single-use suburban sites where the automobile is often the only travel mode. However, the Proposed Project is in a dense mixed-use urban environment where many trips are walk, bike, or transit trips. Since the project is about 0.1 miles from the 19<sup>th</sup> Street BART Station, this analysis reduces the ITE based trip generation by 43 percent to account for non-vehicular trips. This reduction is consistent with the City of Oakland’s Transportation Impact Study Guidelines and is based on the Bay Area Travel Survey (BATS) 2000 which shows that the non-automobile mode share within 0.5-mile of a BART station in Alameda County is about 43 percent. This reduction is further confirmed by a 2011 research study which found that reducing ITE based trip generation using BATS data results in a more accurate estimation of trip generation for urban mixed-use developments versus using ITE based trip generation alone.<sup>81</sup>

Pass-by trips are trips attracted to a site from adjacent roadways as an intermediate stop on the way to a final destination. Pass-by trips alter travel patterns in the immediate study area, but do not add new vehicle trips to the roadway network, and should therefore be excluded from trip generation estimates. According to ITE’s Trip Generation Handbook

<sup>81</sup> Evaluation of the Operation and Accuracy of Five Available Smart Growth Trip Generation Methodologies. Institute of Transportation Studies, UC Davis, 2011.

(Third Edition), the average weekday PM peak hour pass-by reduction is 43 percent for restaurant. This trip generation estimate is conservative in that it does not account for pass-by trips for the restaurant (commercial) component of the Proposed Project.

As summarized in Table 26, the conservative net trip generation for the Proposed Project is approximately 1,250 daily, 100 AM peak hour, and 111 PM peak hour trips given it is anticipated that more than 43 percent of vehicle trips will be transit, bike, or walk trips due to the Proposed Project’s proximity to BART and the Uptown Transit Center.

*Non-Auto Trip Generation*

Consistent with City of Oakland Transportation Impact Study Guidelines, Table 27 presents the estimates of project trip generation for all travel modes.

**TABLE 27 TRIP GENERATION BY TRAVEL MODE**

<b>Mode</b>	<b>Mode Share Adjustment Factors<sup>a</sup></b>	<b>Daily</b>	<b>Weekday AM Peak Hour</b>	<b>Weekday PM Peak Hour</b>
Automobile	57.0%	1,250	100	111
Transit	30.4%	670	53	59
Bike	3.9%	90	7	8
Walk	23.0%	510	40	45
<b>Total Trips</b>		<b>2,520</b>	<b>200</b>	<b>223</b>

<sup>a</sup> Based on City of Oakland Transportation Impact Study Guidelines assuming project site is in an urban environment within 0.5 mile of a BART station.  
Source: Fehr & Peers, 2017.

*Intersection Operations*

According to the City of Oakland’s Transportation Impact Review Guidelines (April 2017), the criteria for the intersections to be analyzed include the following:

- All intersection(s) of streets adjacent to project site;
- All signalized intersection(s), all-way stop-controlled intersection(s) or roundabouts where 100 or more peak hour trips are added by the project;
- All signalized intersection(s) currently operating at LOS D, E, or F, where 50 or more peak hour trips are added by the project;

- Side-street stop-controlled intersection(s) where 50 or more peak hour trips are added by the project to any individual movement other than the major-street through movement; and,

The process used to select the intersections meeting the above criteria, followed by the evaluation of these intersections using Level of Service (LOS)<sup>82</sup> calculated based on the 2010 Highway Capacity Manual methodologies, are described below.

#### *Trip Distribution and Study Intersection Selection*

The trip distribution and assignment process is used to estimate how the trips generated by a Proposed Project would be distributed across the roadway network. The direction of approach to and departure from the project site was determined based on existing travel patterns, locations of complementary land uses, results of the Alameda County Transportation Commission's (ACTC) Travel Demand Model, and the one-way street network and turn restrictions in Downtown Oakland. Figure 12 shows the resulting trip distribution.

Trips generated by the Proposed Project, as shown in Table 26, were assigned to the roadway network according to the trip distribution shown on Figure 12. Figure 13 shows the resulting trip assignment by roadway segment and Figure 14 shows the trip assignment at study intersections.

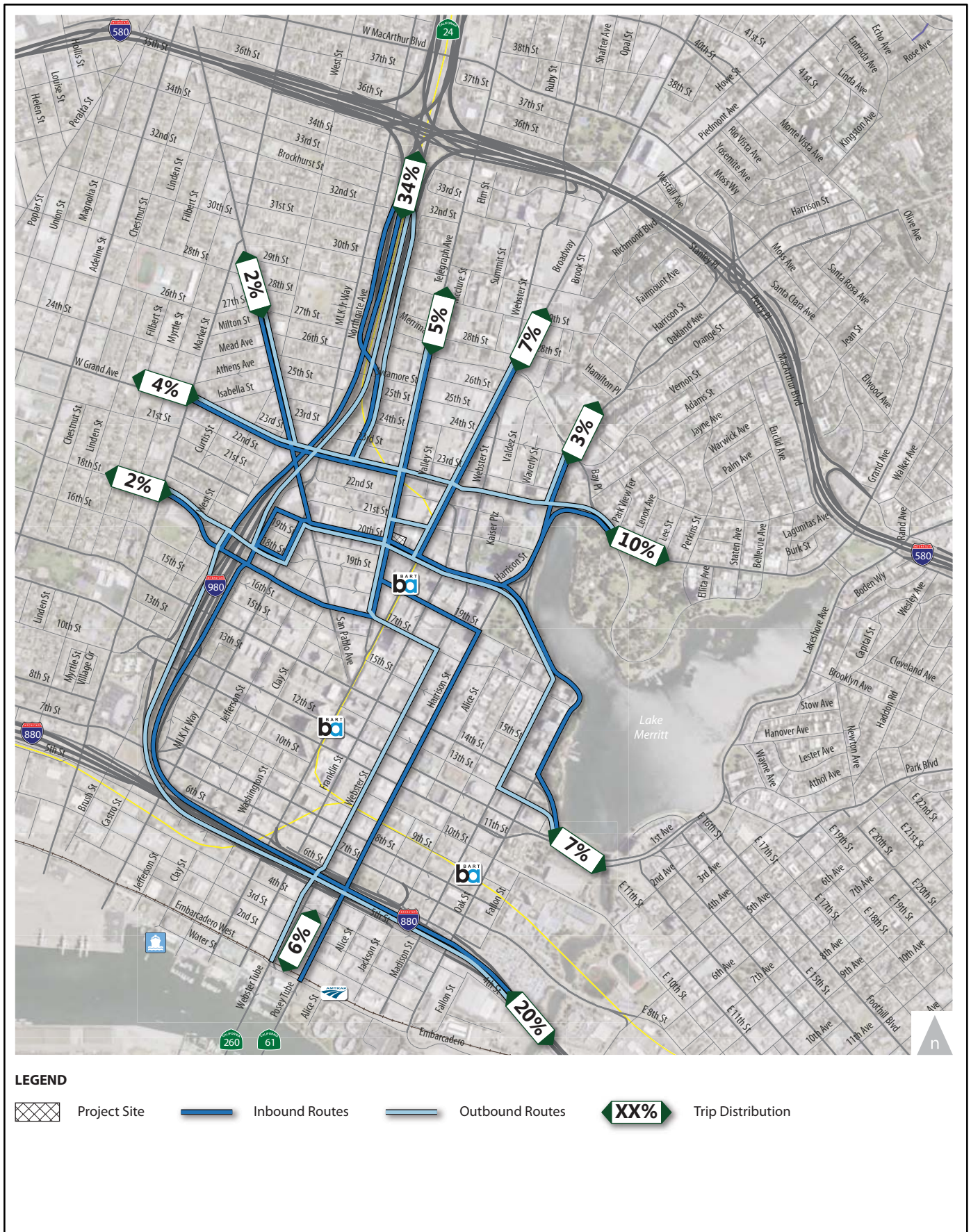
Following criteria above, the following three intersections were evaluated based on their proximity to the Proposed Project site:

- Telegraph Avenue/21<sup>st</sup> Street (side-street stop-controlled; project would add 41 AM and 40 PM peak hour trips).
- Telegraph Avenue/20<sup>th</sup> Street (signalized; project would add 59 AM and 71 PM peak hour trips).
- Broadway/20<sup>th</sup> Street (signalized; project would add 13 AM and 22 PM peak hour trips).

The Proposed Project would not add 50 or more peak hour trips to any other signalized intersections, all-way stop-controlled intersections, or roundabouts, or add 50 or more peak hour trips to any individual movement other than the major-street through movement at side-street stop-controlled intersections. Thus, no additional intersections would need to be analyzed.

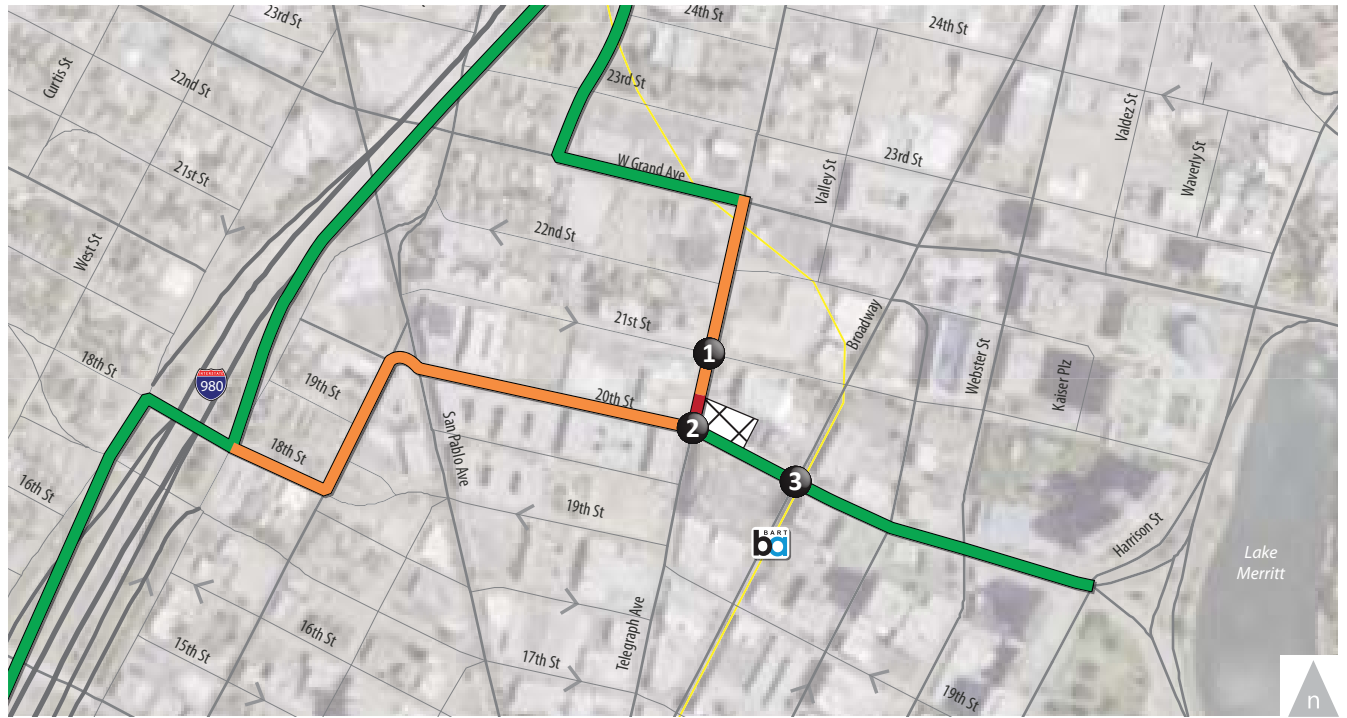
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<sup>82</sup> The operations of roadway facilities are typically described with the term level of service (LOS), a qualitative description of traffic flow based on factors such as speed, travel time, delay, and freedom to maneuver. Six levels are defined from LOS A, which reflects free-flow conditions where there is very little interaction between vehicles, to LOS F, where the vehicle demand exceeds the capacity and high levels of vehicle delay result. LOS E represents at-capacity operations. When traffic volumes exceed the intersection capacity, stop-and-go conditions result and a vehicle may wait through multiple signal cycles before passing through the intersection; these operations are designated as LOS F.

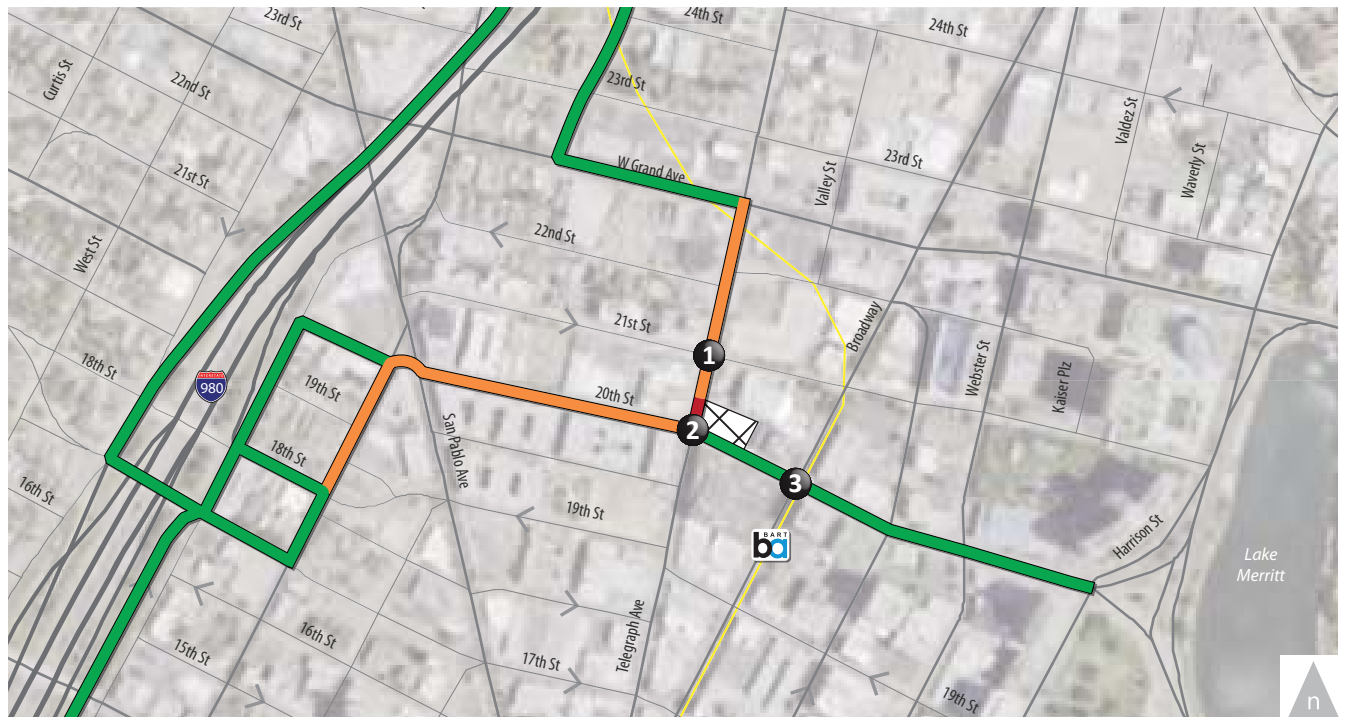


Source: Fehr & Peers, 2017

### AM Peak Hour Trip Assignment






### PM Peak Hour Trip Assignment



**LEGEND**

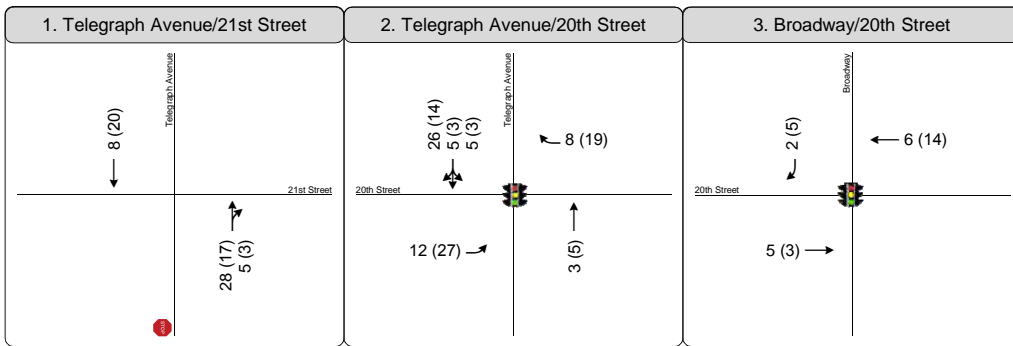
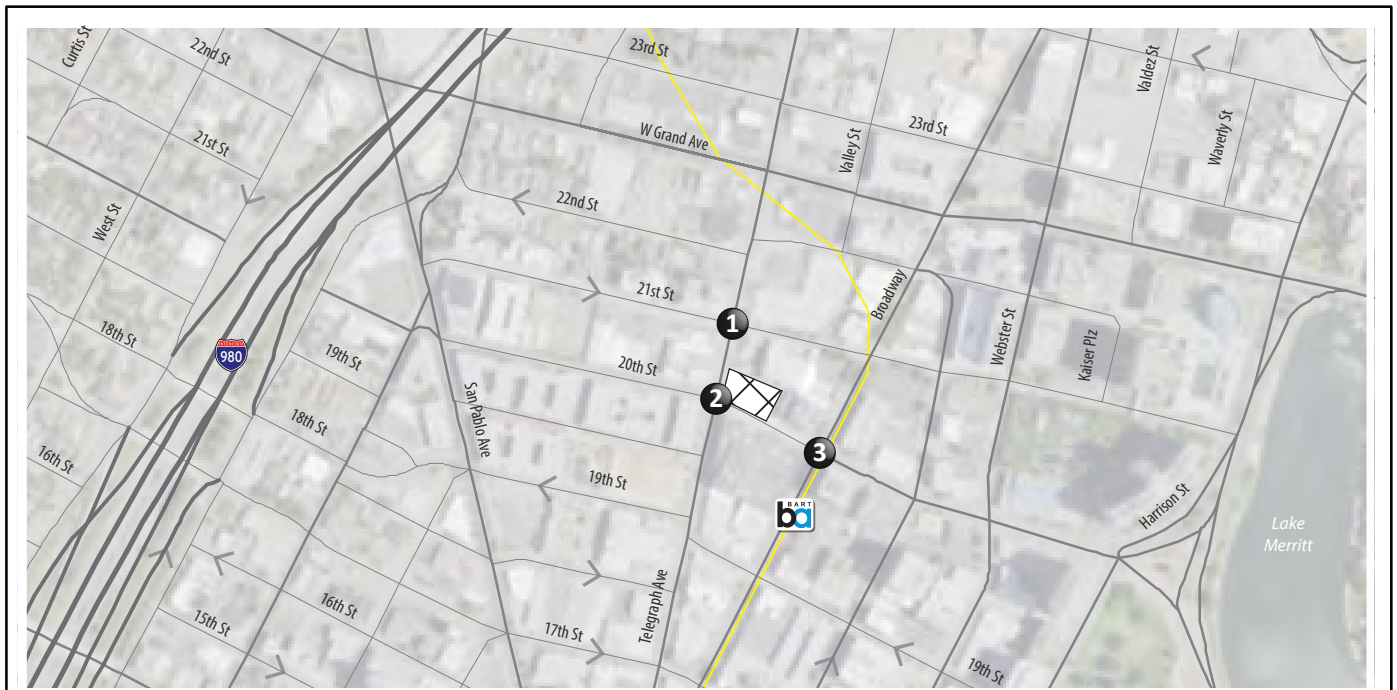
 Project Site     Study Intersection

**Peak Hour Project Trips**

 10 to 24  
 25 to 49  
 50+

Source: Fehr & Peers, 2017

Figure 13



**LEGEND**

- XX (YY) AM (PM) Peak Hour Traffic Volumes
- Signalized Intersection
- Stop Sign
- Project Site
- Study Intersection

Source: Fehr & Peers, 2017



*Existing Traffic Conditions*

Traffic data, consisting of automobile turning movement, as well as pedestrian and bicycle counts, were collected on a clear day, while area schools were in normal session. The traffic data collection was conducted from 7:00 a.m. to 9:00 a.m. (weekday AM) and from 4:00 p.m. to 6:00 p.m. (weekday PM) in May 2016 at the three study intersection. Appendix A, as shown in Attachment I: Proposed Project Traffic Counts, presents the existing traffic volume counts. At each study intersection, the peak hour (i.e., the hour with the highest traffic volumes) within each peak period was selected for evaluation.

Figure 15 presents existing intersection lane configurations, traffic control, and the peak hour traffic, pedestrian, and bicycle volumes at the study intersections. Based on the volumes and roadway configurations presented on Figure 15, LOS was calculated for the study intersections using the 2010 Highway Capacity Manual methodologies. Table 28 summarizes the existing intersection analysis results. The two signalized study intersections currently operate at LOS B or better and the side-street stop-controlled approach at the Telegraph Avenue/21<sup>st</sup> Street intersection operates at LOS C during both weekday AM and PM peak hours. Appendix A, as shown in Attachment I: Proposed Project Traffic Counts provides the detailed LOS calculation sheets. The side-street stop-controlled Telegraph Avenue/21<sup>st</sup> Street intersection does not currently meet the California Manual on Uniform Traffic Control Devices (MUTCD) peak hour signal warrant.

**TABLE 28**      **EXISTING AND EXISTING PLUS PROJECT INTERSECTION LOS SUMMARY**

Intersection	Control <sup>a</sup>	Peak Hour	Existing		Existing Plus Project		Significant Impact?
			Delay <sup>b</sup>	LOS	Delay <sup>b</sup>	LOS	
1. Telegraph Avenue/ 21 <sup>st</sup> Street	SSSC	AM	3.0 (23.7)	A (C)	2.9 (25.0)	A (D)	No
		PM	2.1 (22.4)	A (C)	2.1 (23.6)	A (C)	No
2. Telegraph Avenue/ Thomas L. Berkley Way (20 <sup>th</sup> Street)	Signal	AM	13.1	B	13.3	B	No
		PM	14.7	B	14.9	B	No
3. Broadway/ Thomas L. Berkley Way (20 <sup>th</sup> Street)	Signal	AM	9.6	A	9.6	A	No
		PM	10.0	A	10.1	B	No

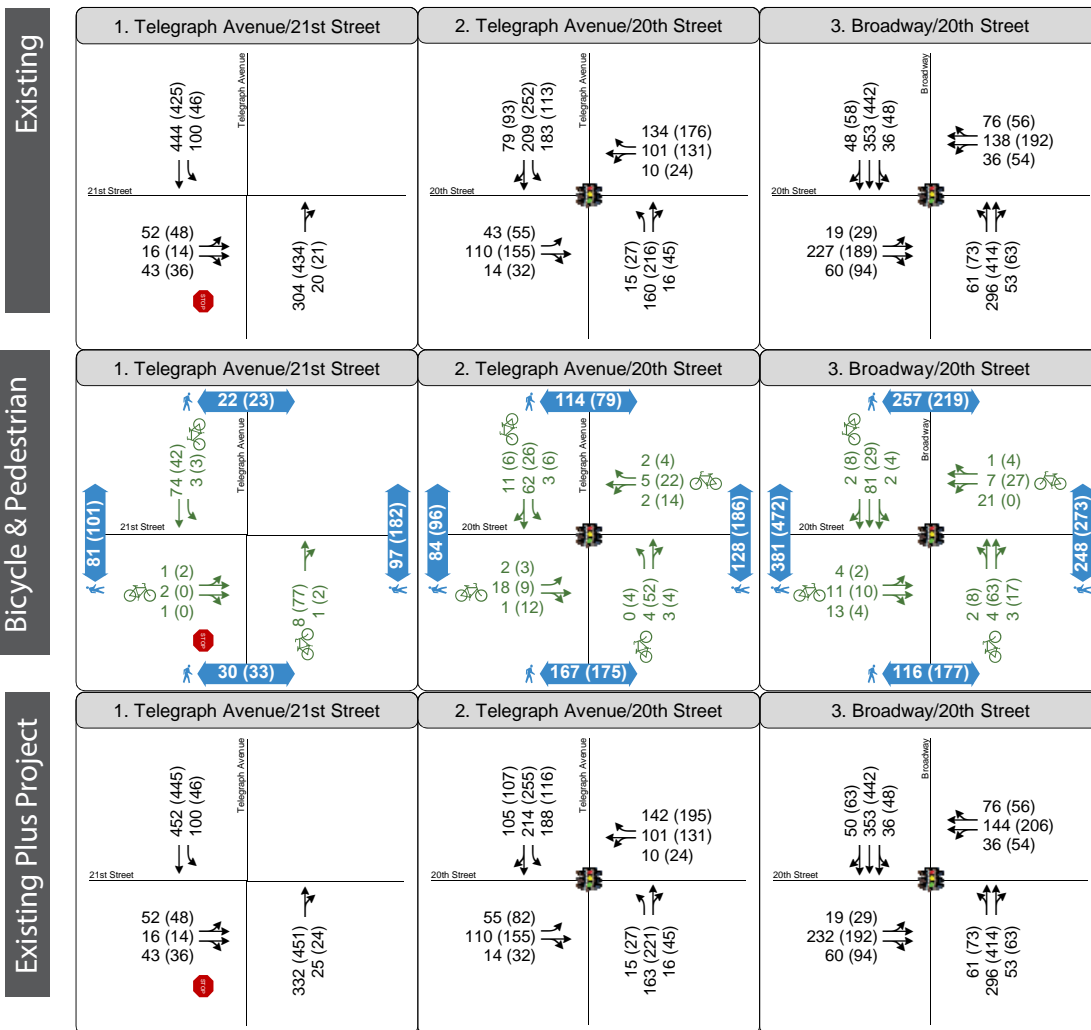
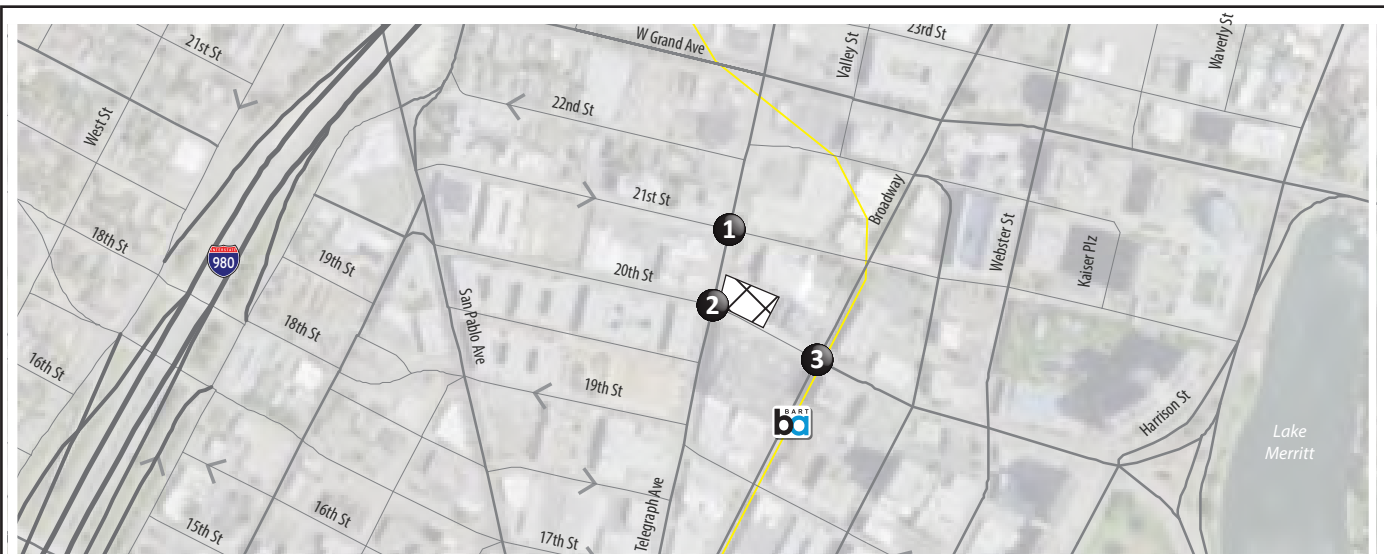
<sup>a</sup> Signal = intersection is controlled by a traffic signal. SSSC = side street stop control

<sup>b</sup> Average intersection delay and LOS based on the 2010 Highway Capacity Manual method is shown, unless noted.

Source: Fehr & Peers, 2017

*Existing Plus Project Traffic Conditions*

Figure 15 shows traffic volumes under Existing Plus Project conditions, which consists of Existing traffic volumes plus added traffic volumes generated by the project.



**LEGEND** XX (YY) AM (PM) Peak Hour Traffic Volumes    x (y) AM (PM) Peak Hour Bicycle Volumes    x (y) AM (PM) Peak Hour Pedestrian Volumes    Signalized Intersection    Stop Sign

Project Site    Study Intersection

Source: Fehr & Peers, 2017

2016 Telegraph Avenue Project CEQA Analysis

Figure 15 Existing and Existing Plus Project

Table 28 summarizes the intersection operations results for the Existing No Project and Existing Plus Project conditions. All study intersections would continue to operate at the same overall LOS during both AM and PM peak hours under Existing Plus Project conditions, except the side-street stop-controlled eastbound approach at the Telegraph Avenue/21<sup>st</sup> Street intersection, which would operate at LOS D during the PM peak hour.

The side-street stop-controlled Telegraph Avenue/21<sup>st</sup> Street intersection would not meet the California MUTCD peak hour signal warrant under Existing Plus Project conditions. The Proposed Project would not cause a significant impact at the study intersections under Existing Plus Project conditions even if using an LOS threshold was applicable to the Proposed Project.

### **Project Access and Circulation**

Access and circulation for various travel modes in and around the site are described below.

#### *Vehicle Access and On-Site Circulation Impacts*

The Proposed Project would provide a 78-space garage which would be accessed through adjacent inbound and outbound driveways on Telegraph Avenue, about 50 feet north of Thomas L. Berkley Way (20<sup>th</sup> Street). All parking spaces would be assigned to project residents with 76 stacker parking spaces and two ADA spaces. A gate at the driveway would restrict access into and out of the garage.

Loading for the Proposed Project would be provided through the garage using the inbound driveway. Trucks would either back into or head into the inbound garage driveway from Telegraph Avenue. Both the inbound and outbound garage driveways would be served through one curb-cut on Telegraph Avenue

Based on the Proposed Project site plan dated December 22, 2016, the garage outbound driveway may not provide adequate sight distance between exiting vehicles and pedestrians on the adjacent sidewalk because they may not provide a clear line-of-sight between a vehicle ten feet back from the sidewalk and a pedestrian 10 feet away on each side of the driveways. The driveways may also not provide adequate sight distance between exiting vehicles and bicycles and automobiles traveling on both northbound and southbound Telegraph Avenue.

Trucks backing into the loading dock from Telegraph Avenue may potentially disrupt and/or conflict with the relatively high volume of pedestrians, bicycles, and automobiles along Telegraph Avenue. In addition, while loading/unloading, trucks may block the inbound vehicles in the garage.

**Recommendation 1:** While not required to address a CEQA impact, the following should be considered as part of the final design for the Proposed Project:

- Ensure that the outbound garage driveway on Telegraph Avenue would provide adequate sight distance between existing vehicles and pedestrians, bicyclists and motorists on Telegraph Avenue.
- Consider redesigning the loading space so that trucks can maneuver into and out of the garage head first and would not block inbound vehicles. Alternatively, consider restricting truck access to non-peak hours and/or have flaggers when trucks are on-site.

#### *Bicycle Access and Bicycle Parking*

Chapter 17.117 of the Oakland Municipal Code requires long-term and short-term bicycle parking for new buildings. Long-term bicycle parking includes lockers or locked enclosures and short-term bicycle parking includes bicycle racks. The Code requires one long-term space for every four multi-family dwelling units and one short-term space for every 20 multi-family dwelling units. Code requires the minimum level of bicycle parking, two long and short-term spaces, for the retail component of the Proposed Project.

Table 29 summarizes the bicycle parking requirement for the project. The Proposed Project is required to provide 60 long-term and 14 short-term parking spaces. Chapter 17.117.070 of the Oakland Municipal Code specifies location and design standards of required bicycle parking. Long-term bicycle parking must be on-site, or within 500-feet of the building entrance, and short-term parking must be within 50-feet of the building entrance. The bicycle parking areas should be well-lit and not impede pedestrian accessibility. The current project site plan (dated December 22, 2016) identifies long-term and short-term bicycle parking as shown in Table 29. Long-term bicycle parking is proposed in a secure bicycle room in the basement accessed by elevator and/or stairs. The Short-term bicycle parking is proposed in bicycle racks along 20<sup>th</sup> Street adjacent to the Uptown Transit Center bus shelters, which may interfere with bus boarding/alightings.

The Proposed Project site is served by Class 4 parking-protected bicycle lanes on Telegraph Avenue and a Class 3 bicycle route on Thomas L. Berkley Way (20<sup>th</sup> Street).

**Recommendation 2:** While not required to address a CEQA impact, the following should be considered as part of the required TDM Plan for the Proposed Project:

- Consider relocating the long-term bicycle parking from the basement to a more convenient location on the ground level.
- Consider relocating all or some of the short-term bicycle parking from 20<sup>th</sup> Street adjacent to the bus shelters to other locations, such as on the sidewalk and/or in-street along the Telegraph Avenue frontage or just north of the project, in order to minimize conflicts with bus riders at the Uptown Transit Center.
- Evaluate the feasibility of restriping 20<sup>th</sup> Street between Telegraph and San Pablo Avenues to eliminate the center turn lane and implement continuous Class II/IV bike lanes.

**TABLE 29 BICYCLE PARKING REQUIREMENTS**

Land Use	Size <sup>a</sup>	Long-Term		Short-Term	
		Spaces per Unit <sup>b</sup>	Spaces	Spaces per Unit <sup>b</sup>	Spaces
Residential	230 DU	1:4 DU	58	1:20 DU	12
Retail (assumed restaurant)	5.3 KSF	minimum	2	minimum	2
Total Required Bicycle Spaces			60	14	
Total Bicycle Parking Provided			64	20	
<b>Bicycle Parking Surplus</b>			<b>+4</b>	<b>+6</b>	

<sup>a</sup> DU = dwelling unit; KSF = 1,000 square feet.

<sup>b</sup> Based on Oakland Municipal Code Sections 17.117.090 and 17.117.110.

Source: Fehr & Peers, 2017.

*Pedestrian Access and On-Site Circulation Impacts*

The residential component of the Proposed Project would be accessed through a lobby on Thomas L. Berkley Way (20<sup>th</sup> Street) on the south side of the building. The lobby would have direct access to the Proposed Project garage and include elevators and a stairwell that connect to the residential units and the long-term bicycle parking in the basement. The commercial component of the Proposed Project would be directly accessed from Thomas L. Berkley Way (20<sup>th</sup> Street) and Telegraph Avenue.

Telegraph Avenue currently has a 16-foot-wide sidewalk along the west side of the Proposed Project. Signs, parking meters, tree wells, and other street amenities adjacent to the street narrow the through-passage zone to a minimum of 12 feet. Thomas L. Berkley Way (20<sup>th</sup> Street) currently has a 16-foot-wide sidewalk along the south side of the Proposed Project. Bus shelters and other bus stop amenities adjacent to the street narrow the through-passage zone to a minimum of eight feet. The Proposed Project does not propose any changes to the sidewalks on Telegraph Avenue or Thomas L. Berkley Way (20<sup>th</sup> Street).

Currently, the Telegraph Avenue/Thomas L. Berkley Way (20<sup>th</sup> Street) intersection provides marked crosswalks and pedestrian signal heads for all four crossings of the intersection. The intersection also provides bulb-outs and two directional curb-ramps per corner at the northeast, southeast, and southwest corners of the intersection. However, the northwest corner of the intersection does not provide a bulb-out and provides only one diagonal curb ramp.

### *Transit Access Impacts*

Transit service providers in the project vicinity include BART and Alameda Contra-Costa Transit (AC Transit). BART provides regional rail service throughout the east bay and across the San Francisco Bay. The nearest BART station to Proposed Project site is the 19<sup>th</sup> Street BART Station, less than 0.1 miles east of the Proposed Project site. The Proposed Project would not modify access between the Proposed Project site and the BART station.

AC Transit is the primary bus service provider in the City of Oakland. The nearest bus stop to the Proposed Project site is the Uptown Transit Center on Thomas L. Berkley Way (20<sup>th</sup> Street) immediately adjacent to the Proposed Project site. The Transit Center is served by AC Transit Routes 6, 18, 72, 72M, 72R, 800, 802, and NL.

No changes to the bus routes operating in the vicinity of the Proposed Project are planned and access between these bus stops and the Proposed Project would not modify access between the Proposed Project site and these bus stops.

**Recommendation 3:** While not required to address a CEQA impact, the following should be considered as part of the TDM for the Proposed Project:

- To improve bus reliability at the Uptown Transit Center, explore the feasibility of designating 20<sup>th</sup> Street between Telegraph Avenue and Broadway as a transit-bike-only street. If feasible, implement appropriate improvements, including signage.

### **Automobile Parking**

Although parking is not an environmental impact required for evaluation under CEQA, this section summarizes parking requirements, supply and demand for automobiles for informational purposes. The Proposed Project would provide 78 parking spaces on-site. This analysis assumes that all spaces would be reserved for residential use only.

#### *Parking Requirements*

The City of Oakland Municipal Code established minimum and maximum parking requirements. According to Code Section 17.116.060, the residential component of the Proposed Project would require a minimum of zero and a maximum of one and one quarter parking space per residential unit. According to Code Section 17.116.080, the restaurant component of the Proposed Project would require a minimum of zero and a maximum of one parking space per 300 square feet of ground floor. Table 30 presents the off-street automobile parking requirements for the Proposed Project per City Code. The Proposed Project is required to provide a minimum of zero and a maximum of 288 parking spaces for the residential units and a minimum of zero and maximum of 18 parking spaces for the restaurant component of the Proposed Project. The Project proposes 78 spaces for the residential units and no parking spaces for the commercial use. The proposed parking supply is within the range of City of Oakland Municipal Code requirements.

**TABLE 30 AUTOMOBILE PARKING CODE REQUIREMENTS**

Land Use	Size <sup>a</sup>	Required Parking Supply		Provided Parking Supply	Within Range?
		Minimum	Maximum		
Residential <sup>b</sup>	230 DU	0	288	78	Yes
Retail (assumed restaurant) <sup>c</sup>	5.3 KSF	0	18	0	Yes
<b>Total</b>		<b>0</b>	<b>306</b>	<b>78</b>	<b>Yes</b>

<sup>a</sup> DU = dwelling unit; KSF = 1,000 square feet.

<sup>b</sup> City of Oakland off-street parking requirement for residential in zone CBD-P is a minimum of zero space and a maximum of one and one quarter spaces per unit (section 17.116.060).

<sup>c</sup> City of Oakland off-street parking requirement for commercial uses in zone CBD-C is a minimum of zero space and a maximum of one space per 300 square feet of ground level and one space per 500 square feet of above ground level (Section 17.116.080).

Source: Fehr & Peers, 2017

*Estimated Parking Demand*

This analysis compares proposed parking supply to project parking demand estimated using Institute of Transportation Engineer’s (ITE) Parking Generation, 4<sup>th</sup> Edition; Urban Land Institute’s Shared Parking, 2<sup>nd</sup> Edition; and American Community Survey data. Where applicable, a non-auto adjustment of 43 percent (Oakland City guidelines for mode split adjustment within 0.5 mile from BART as previously described) is applied to the rates to account for non-auto trips.

Table 31 summarizes parking demand for the Proposed Project. The parking demand values represent average parking demand. Assuming that parking demand for all project components would peak at the same time and that all project uses can use the parking garage, the project peak parking demand would be about 175 spaces, resulting in a deficit of 97 spaces.

The parking demand estimate presents a reasonable worst-case scenario in that it assumes most of the retail visitors would be new to the area. Although specific retail uses have not been determined, this assessment conservatively assumes that it would be a restaurant. Further, the Proposed Project would adhere to City of Oakland SCAs that would require the preparation and implementation of a TDM Plan (SCA-TRANS-1: Transportation and Parking Demand Management (#71) because the Proposed Project would generate more than 50 peak hour trips.

The estimated parking deficit would be consistent with City’s current policies to discourage driving and encourage non-automobile travel modes. On-street parking and other garages in the project vicinity would not be a viable option for most project residents because most on-street parking in the project vicinity is metered and/or has time limits, and most parking garages in the project vicinity are closed at night.

**TABLE 31 PROJECT PARKING SUPPLY AND DEMAND**

<b>Land Use</b>	<b>Units<sup>a</sup></b>	<b>Parking Demand Per Unit</b>	<b>Demand</b>
Apartment (Residents)	230 DU	0.53 <sup>b</sup>	122
Apartment (Visitors)	230 DU	0.09 <sup>c</sup>	21
Restaurant	5.3 KSF	6.04 <sup>d</sup>	32
<b>Total Parking Demand</b>			<b>175</b>
<i>Parking Supply</i>			<i>78</i>
<b>Parking Deficit</b>			<b>-97</b>

<sup>a</sup> DU = Dwelling Unit; KSF = 1,000 square-feet.

<sup>b</sup> Based on average vehicle ownership data for census tract 4028 from the 2013 American Community Survey.

<sup>c</sup> Based on ULI's *Shared Parking* rate for visitors and applying a non-auto reduction of 43%.

<sup>d</sup> Based ITE *Parking Generation, 4<sup>th</sup> Edition* land use category 932 (High-Turnover (Sit-Down) Restaurant, Weekday, Suburban) and applying a 43% non-auto reduction.

Source: Fehr & Peers, 2017.

Additionally, the limited on-site parking is expected to attract residents who do not own cars and encourage the use of non-automobile travel modes.

The following requirements will help reduce Proposed Project parking demand and manage the available supply:

- Unbundled parking as required by the new parking provision adopted in 2016.
- Implementation of a Transportation Demand Management (TDM) plan to encourage residents and employees to use other travel modes consistent with SCA-TRANS-1: Transportation and Parking Demand Management (#71).
- Provide one car-sharing spaces, as required by Oakland's City Code 17.116.105.

*Loading Requirements*

City Municipal Code Section 17.116.120 requires off-street loading facilities for residential uses and City Municipal Code Section 17.116.140 requires off-street loading facilities for commercial uses. The requirement for residential facilities that have more than 50,000 square feet of floor area is one off-street loading berth. The City Municipal Code Section 17.116.140 requires no loading berth for retail uses less than 10,000 square feet. Based on City Code, the Proposed Project is required to provide one off-street loading berth for the residential component of the Proposed Project and no berth for the retail component. The Proposed Project designates space for one truck loading space that can be accessed



from Telegraph Avenue. Thus, the Proposed Project would satisfy the City’s loading requirement.

### **Conclusion**

Based on the analysis and the findings and conclusions of the Program EIRs, implementation of the Proposed Project would not substantially increase the severity of significant impacts identified in the Uptown EIRs and Program EIRs, nor would it result in new significant impacts related to transportation and circulation that were not identified in the Uptown EIRs and Program EIRs. No new mitigation measures are required. The Proposed Project would be required to implement SCA-TRANS-1: Transportation and Parking Demand Management (#71) as identified in Attachment A.

**N. UTILITIES AND SERVICE SYSTEMS**

	Equal or Less Severity of Impact Previously Identified in the Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
Would the project:			
a. Exceed wastewater treatment requirements of the San Francisco Bay RWQCB; require or result in construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; or result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the providers' existing commitments and require or result in construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	■	□	□
b. Exceed water supplies available to serve the project from existing entitlements and resources, and require or result in construction of water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	■	□	□
c. Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs and require or result in construction of landfill facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; or violate applicable federal, state, and local statutes and regulations related to solid waste.	■	□	□

	Equal or Less Severity of Impact Previously Identified in the Previous CEQA Documents	Substantial Increase in Severity of Previously Identified Significant Impact in Previous CEQA Documents	New Significant Impact
<p>Would the project:</p> <p>d. Violate applicable federal, state, and local statutes and regulations relating to energy standards; or result in a determination by the energy provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the providers' existing commitments and require or result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.</p>	■	□	□

**Previous CEQA Documents Findings**

Utilities and service systems were analyzed in the Program EIRs. The 2011 Renewal Plan EIR and the 2010 Housing Element Update EIR found all potential utilities and service system impacts to be less than significant and therefore no mitigation measures or SCAs were required. The 1998 LUTE EIR found potential impacts from heightened water demand, sewer flows, and drainage problems to be less than significant. The 1998 LUTE EIR also identified a significant and unavoidable impact associated with increased population in areas where firefighting and evacuation are constrained. Downtown Oakland was not an area identified as a constrained area.

The Uptown EIRs evaluated potential impacts to utilities and service systems. The EIRs, which considered new development on Block 8, including the Proposed Project site, concluded that impacts related to utilities would be less than significant and no mitigation measures would be needed. The analysis below demonstrates that no new or more severe impacts would occur under the Proposed Project.

**Project Analysis**

*Water, Wastewater, and Stormwater (Criteria 14a and 14b)*

City SCAs that would address potential impacts on water, wastewater and stormwater include: SCA-UTIL-1: Sanitary Sewer System (#79), SCA-UTIL-2: Storm Drain System (#80), and SCA-UTIL-3: Recycled Water (#81).

As described in the Uptown EIRs, the anticipated daily water demand that would result from implementation of the Uptown Project represents approximately 0.2 percent of

average daily water demand within the EBMUD service area.<sup>83</sup> The Proposed Project does not propose any new, less efficient water uses than what was previously evaluated, therefore impacts would remain less than significant.

Wastewater generated by the Proposed Project would be subject to both primary and secondary treatment and would not violate the wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board. The Uptown EIRs stated that Public Works Agency staff would evaluate the system to confirm any additional repairs, if any, to be incorporated into the final public improvement plans and specifications.

The Uptown EIRs determined that development would have less-than-significant impacts related to stormwater. Much of the analyzed area is composed of impervious surfaces, and new development would likely decrease storm-drain runoff, because proposed projects would be required to incorporate additional pervious areas through landscaping, in compliance with City of Oakland requirements.

#### *Solid Waste Services (Criterion 14c)*

As described in the Uptown EIRs, the all development in the Uptown project would be designed in accordance with State and local solid waste regulations and impacts associated with solid waste would be less than significant. Nonhazardous solid waste in the analyzed area is ultimately hauled to the Altamont Landfill and Resource Facility. The Altamont Landfill would have sufficient capacity to accept waste generated by development under the proposed project. In addition, implementation of SCA-UTIL-4: Construction and Demolition Waste Reduction and Recycling (#74) and SCA-UTIL-5: Recycling Collection and Storage Space (#76), pertain to waste reduction and recycling collection. Implementation of these SCAs would ensure no significant impacts related to solid waste would occur.

#### *Energy (Criterion 14d)*

Development under the Proposed Project, as addressed in the Uptown EIRs, would result in less-than-significant impacts related to energy standards and use. Developments would be required to comply with the standards of Title 24 of the California Code of Regulations. The implementation of SCA-UTIL-6: Underground Utilities (#75) requires all projects to relocate all new gas, electric, cable, and telephone facilities underground. SCA-UTIL-7: Green Building Requirements (#77) requires compliance with the green building ordinance.

### **Conclusion**

Consistent with the findings of the Uptown EIRs, the Proposed Project would not result in any significant impacts related to population or housing. Further, based on an examination of the analysis, findings, and conclusions of the Previous CEQA Documents,

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<sup>83</sup> City of Oakland, 2004. 2004 Uptown Mixed Use Project, Final EIR, January

implementation of the Proposed Project would not substantially increase the severity of significant impacts identified in the Uptown EIRs or Previous CEQA Documents. Nor would it result in new significant impacts related to utilities and service systems that were not identified in the Program EIRs or the Previous CEQA Documents. The Program EIRs did not identify any mitigation measures related to utilities and service systems, and none would be required for the Proposed Project. Implementation of SCA-UTIL-1: Sanitary Sewer System (#79), SCA-UTIL-2: Storm Drain System (#80), SCA-UTIL-3: Recycled Water (#81), SCA-UTIL-4: Construction and Demolition Waste Reduction and Recycling (#74), SCA-UTIL-5: Recycling Collection and Storage Space (#76), SCA-UTIL-6: Underground Utilities (#75), SCA-UTIL-7: Green Building Requirements (#77), SCA-HYD-1: Erosion and Sedimentation Control Plan for Construction (#45), and SCA-HYD-2: NPDES C.3 Stormwater Requirements for Regulated Projects (#50) (see Attachment A), as well as compliance with Title 24 and CALGreen requirements would ensure that impacts to sewer capacity, stormwater drainage facilities, solid waste services, and energy would be less than significant.



## VII. REFERENCES

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## **Attachment A: Standard Conditions of Approval and Mitigation Monitoring and Reporting Program**

This Standard Conditions of Approval and Mitigation Monitoring and Reporting Program (SCAMMRP) is based on the CEQA Analysis prepared for the 2016 Telegraph Avenue Project (Proposed Project).

This SCAMMRP is in compliance with Section 15097 of the CEQA Guidelines, which requires that the Lead Agency “adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects.” The SCAMMRP lists Mitigation Measures included in the Final Uptown Mixed Use Project EIR (2004 Uptown EIR). The SCAMMRP also includes the City’s Standard Conditions of Approval (SCAs) imposed by the City on all projects with locational or other characteristics shared by the project; the City’s intent in imposing these SCAs is to minimize potential adverse effects that could result from implementation of the project and to ensure the conditions are implemented and monitored. The SCAMMRP also has incorporated applicable Mitigation Measures included in the Final Uptown Mixed Use Project EIR (2004 Uptown EIR) into modified SCAs to be approved by the City.

This CEQA Analysis is also based on the analysis in the following Program EIRs that apply to the project: Oakland’s 1998 General Plan Land Use and Transportation Element (LUTE) EIR, the 2010 General Plan Housing Element EIR and 2014 Addendum (2010 Housing Element EIR Update), and the 2011 Central District Urban Renewal Plan EIR (or “2011 Renewal Plan EIR”). However, none of the Mitigation Measures or SCAs from these Program EIRs are included in this SCAMMRP because updated and equally effective Mitigation Measures or SCAs are identified in the Uptown Project EIRs or in this CEQA Analysis for the project. Thus, the revised /current SCAs are designed to and will reduce impacts to less than significant levels. To the extent that there is any inconsistency between any mitigation measures and/or SCAs, the more restrictive conditions shall govern; to the extent any Mitigation Measure and/or SCA identified in the CEQA Analysis was inadvertently omitted, it is automatically incorporated herein by reference.

- The first column of the SCAMMRP table identifies applicable mitigation measures from the Uptown Project EIRs and City SCAs. Only the mitigation measures or the portions of the mitigation measures applicable to the Proposed Project are listed. Those that were identified by the Uptown EIRs that have been determined to not be applicable or superseded by an SCA are not listed. The SCAs listed are the City’s most current SCAs (April 2017). The SCAs were updated by the City and determined to be equally as effective and comprehensive, if not more, in reducing potential impacts to a less-than-significant level than those included in the Uptown EIRs. The SCAs are identified by a number that is consistent with the most recent

update or revision to the City's *Standard Conditions of Approval and Uniformly Applied Development Standards* document<sup>1</sup> as provided in parentheses..

- The second column identifies the monitoring schedule or timing applicable of the Proposed Project.
- The third column identifies the party responsible for monitoring the required action for the Proposed Project.
- The fourth column summarizes the monitoring procedure.

The Proposed Project sponsor is responsible for compliance with any mitigation measures and/or SCAs set forth herein at its sole cost and expense, unless otherwise expressly provided in a specific mitigation measure or SCA, and subject to the review and approval of the City of Oakland. Overall monitoring and compliance with the mitigation measures will be the responsibility of the Bureau of Planning or the Bureau of Building. Prior to the issuance of a demolition, grading, and/or construction permit, the project sponsor shall pay the applicable mitigation and monitoring fee to the City in accordance with the City's Master Fee Schedule.

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<sup>1</sup> Standard Conditions Of Approval, Department of Planning and Building, Bureau of Planning, Adopted by the Oakland City Council on November 3, 2008 (Ordinance No. 12899 C.M.S.) Revised July 2016.

STANDARD CONDITION OF APPROVALS AND MITIGATION MEASURES MONITORING AND REPORTING PROGRAM			
Standard Conditions of Approval/ Mitigation Measures	Standard Conditions of Approval and Mitigation Measures Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
<b>Aesthetics, Shadow and Wind</b>			
<b>SCA-AES 1: Lighting (#18).</b> Proposed new exterior lighting fixtures shall be adequately shielded to a point below the light bulb and reflector to prevent unnecessary glare onto adjacent properties.	Prior to building permit final	N/A	Bureau of Building
<b>SCA-AES-2: Graffiti Control (#16).</b> a. During construction and operation of the project, the project applicant shall incorporate best management practices reasonably related to the control of graffiti and/or the mitigation of the impacts of graffiti. Such best management practices may include, without limitation: i. Installation and maintenance of landscaping to discourage defacement of and/or protect likely graffiti-attracting surfaces. ii. Installation and maintenance of lighting to protect likely graffiti-attracting surfaces. iii. Use of paint with anti-graffiti coating. iv. Incorporation of architectural or design elements or features to discourage graffiti defacement in accordance with the principles of Crime Prevention Through Environmental Design (CPTED). v. Other practices approved by the City to deter, protect, or reduce the potential for graffiti defacement. b. The project applicant shall remove graffiti by appropriate means within seventy-two (72) hours. Appropriate means include: i. Removal through scrubbing, washing, sanding, and/or scraping (or similar method) without damaging the surface and without discharging wash water or cleaning detergents into the City storm drain system. ii. Covering with new paint to match the color of the surrounding surface. iii. Replacing with new surfacing (with City permits if required).	Ongoing	N/A	Bureau of Building
<b>SCA-AES-3: Landscape Plan (#17).</b> a. <i>Landscape Plan Required.</i> The project applicant shall submit a final Landscape Plan for City review and approval that is consistent with the approved Landscape Plan. The Landscape Plan shall be included with the set of drawings submitted for the construction-related permit and shall comply with the landscape requirements of chapter 17.124 of the Planning Code. b. <i>Landscape Installation.</i> The project applicant shall implement the approved Landscape Plan unless a bond, cash deposit, letter of credit, or other equivalent instrument acceptable to the Director of City Planning, is provided. The financial instrument shall equal the greater of \$2,500 or the estimated cost of implementing the Landscape Plan based on a licensed contractor's bid. c. <i>Landscape Maintenance.</i> All required planting shall be permanently maintained in good growing condition and, whenever necessary, replaced with new plant materials to ensure continued compliance with applicable landscaping requirements. The property owner shall be responsible for maintaining planting in adjacent public rights-of-way. All required fences, walls, and irrigation systems shall be permanently maintained in good condition and, whenever necessary, repaired or replaced.	a. Prior to approval of construction-related permit b. Prior to building permit final c. Prior to approval of construction-related permit	a. Bureau of Planning b. Bureau of Planning c. N/A	a. Bureau of Building b. Bureau of Building c. Bureau of Building
<b>Mitigation Measure AES-1:</b> The following measures shall be incorporated into the final Project design: <ul style="list-style-type: none"><li>• Create streetscape vitality and enhance the pedestrian experience through detailed treatment of building facades, including entryways, fenestration, and signage, and through the use of carefully chosen building materials, texture, and color.</li><li>• Design of building facades shall include sufficient articulation and detail to avoid the</li></ul>	Prior to approval of a building permit	N/A	City of Oakland Community and Economic Development Agency, Planning Division

STANDARD CONDITION OF APPROVALS AND MITIGATION MEASURES MONITORING AND REPORTING PROGRAM			
Standard Conditions of Approval/ Mitigation Measures	Standard Conditions of Approval and Mitigation Measures Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
<p>appearance of blank walls or box-like forms.</p> <ul style="list-style-type: none"> <li>Exterior materials utilized in construction of new buildings, as well as site and landscape improvements, shall be high quality and shall be selected for both their enduring aesthetic quality and for their long term durability.</li> <li>Ensure that the architectural and landscape treatment of the proposed parking structure promotes human scale and pedestrian activity.</li> </ul> <p>Detailed designs for the public park shall be developed. The design shall emphasize the public nature of the space and pedestrian comfort. The plaza design shall consider sun/shade patterns during mid-day hours throughout the year. The plaza design shall be sensitively integrated with the streetscape.</p>			
<p><b>Mitigation Measure AES-2a:</b> The specific reflective properties of Project building materials shall be assessed by the City during Design Review as part of the Project's Development Standards, Procedures and Guidelines. Design review shall ensure that the use of reflective exterior materials is minimized and that proposed reflective material would not create additional daytime or nighttime glare.</p>	Prior to approval of a building permit	N/A	City of Oakland Community and Economic Development Agency, Planning Division
<b>Air Quality</b>			
<p><b>SCA-AIR-1:</b> Construction-Related Air Pollution Controls (Dust and Equipment Emissions) (#19). The project applicant shall implement all of the following applicable air pollution control measures during construction of the project:</p> <ol style="list-style-type: none"> <li>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 feasible.</li> <li>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).</li> <li>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.</li> <li>Pave all roadways, driveways, sidewalks, etc. within one month of site grading or as soon as feasible. In addition, building pads should be laid within one month of grading or as soon as feasible unless seeding or soil binders are used.</li> <li>Enclose, cover, water twice daily, or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.).</li> <li>Limit vehicle speeds on unpaved roads to 15 miles per hour.</li> <li>Idling times on all diesel-fueled commercial vehicles over 10,000 lbs. 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.</li> <li>Idling times on all diesel-fueled off-road vehicles over 25 horsepower shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes and fleet operators must develop a written policy as required by Title 23, Section 2449, of the California Code of Regulations ("California Air Resources Board Off-Road Diesel Regulations").</li> <li>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.</li> <li>Portable equipment shall be powered by electricity if available. If electricity is not available, propane or natural gas shall be used if feasible. Diesel engines shall only be used if electricity is not available and it is not feasible to use propane or natural gas.</li> </ol>	During construction	N/A	Bureau of Building

STANDARD CONDITION OF APPROVALS AND MITIGATION MEASURES MONITORING AND REPORTING PROGRAM			
Standard Conditions of Approval/ Mitigation Measures	Standard Conditions of Approval and Mitigation Measures Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
<p>k. 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.</p> <p>l. All excavation, grading, and demolition activities shall be suspended when average wind speeds exceed 20 mph.</p> <p>m. Install sandbags or other erosion control measures to prevent silt runoff to public roadways.</p> <p>n. Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for one month or more).</p> <p>o. 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.</p> <p>p. 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.</p> <p>q. 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.</p> <p>r. Activities such as excavation, grading, and other ground-disturbing construction activities shall be phased to minimize the amount of disturbed surface area at any one time.</p> <p>s. All trucks and equipment, including tires, shall be washed off prior to leaving the site.</p> <p>t. 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.</p> <p>u. All equipment to be used on the construction site and subject to the requirements of Title 13, Section 2449, of the California Code of Regulations ("California Air Resources Board Off-Road Diesel Regulations") must meet emissions and performance requirements one year in advance of any fleet deadlines. Upon request by the City, the project applicant shall provide written documentation that fleet requirements have been met.</p> <p>v. Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., BAAQMD Regulation 8, Rule 3: Architectural Coatings).</p> <p>w. All construction equipment, diesel trucks, and generators shall be equipped with Best Available Control Technology for emission reductions of NOx and PM.</p> <p>x. Off-road heavy diesel engines shall meet the California Air Resources Board's most recent certification standard.</p> <p>y. Post a publicly-visible large on-site sign that includes the contact name and phone number for the project complaint manager responsible for responding to dust complaints and the telephone numbers of the City's Code Enforcement unit and the Bay Area Air Quality Management District. When contacted, the project complaint manager shall respond and take corrective action within 48 hours.</p>			
<p><b>Mitigation Measure AIR-1:</b> Implementation of the following Mitigation Measures would reduce this impact to a less-than-significant level.</p> <ul style="list-style-type: none"> <li><i>All neighboring properties located within 500 feet of property lines shall be provided with the name and phone number of a designated construction dust control coordinator who will respond to complaints within 24 hours by suspending dust producing activities or providing additional personnel or equipment for dust control as deemed necessary. The phone number of the BAAQMD pollution complaints contact shall also be provided. The dust control coordinator shall be on-call during construction hours. The coordinator shall keep a log of complaints received and remedial actions taken in response. This log shall be made available to City staff upon its request.</i></li> </ul>	Ongoing throughout the Project construction period	N/A	City of Oakland Community and Economic Development Agency, Building Services Division

STANDARD CONDITION OF APPROVALS AND MITIGATION MEASURES MONITORING AND REPORTING PROGRAM			
Standard Conditions of Approval/ Mitigation Measures	Standard Conditions of Approval and Mitigation Measures Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
<p><b>SCA-AIR-2: Asbestos in Structures (#23).</b> The project applicant shall comply with all applicable laws and regulations regarding demolition and renovation of Asbestos Containing Materials (ACM), including but not limited to California Code of Regulations, Title 8; California Business and Professions Code, Division 3; California Health and Safety Code sections 25915-25919.7; and Bay Area Air Quality Management District, Regulation 11, Rule 2, as may be amended. Evidence of compliance shall be submitted to the City upon request.</p>	Prior to approval of construction-related permit	Bureau of Planning	Bureau of Building
<p><b>SCA-AIR-3: Stationary Sources of Air Pollution (Toxic Air Contaminants) (#21).</b> The project applicant shall incorporate appropriate measures into the project design in order to reduce the potential health risk due to on-site stationary sources of toxic air contaminants.</p>	Prior to approval of construction-related permit	Bureau of Planning	Bureau of Building
<p><b>SCA-TRANS-1 : Transportation and Parking Demand Management (#71).</b>  See SCA-TRANS-1 below.</p>	See SCA-TRANS-1 below.	See SCA-TRANS-1 below.	See SCA-TRANS-1 below.
<p><b>Mitigation Measure AIR-2: To the extent permitted by law, the Uptown Project shall be required to implement Transportation Control Measures (TCMs) as recommended by the BAAQMD. Measures that the City shall require the Project to implement, or that are already proposed as part of the Project, include the following:</b></p> <ul style="list-style-type: none"> <li>Services Measures: (i) Provide on-site shops and services for employees, such as cafeteria, bank/ATM, dry cleaners, convenience market, etc. (Effectiveness 0.5 percent - 5 percent of work trips, BAAQMD CEQA Guidelines); (ii) Provide on-site child care, or contribute to off-site childcare within walking distance. (Effectiveness 0.1 percent - 1 percent of work trips, BAAQMD CEQA Guidelines).</li> </ul>	Ongoing throughout the Project construction period	N/A	City of Oakland Community and Economic Development Agency, Building Services Division
<b>Cultural Resources</b>			
<p><b>SCA-CULT-1: Vibration Impacts on Adjacent Historic Structures or Vibration-Sensitive Activities (#66).</b> The project applicant shall submit a vibration analysis prepared by an acoustical and/or structural engineer or other appropriate qualified professional for City review and approval that establishes pre-construction baseline conditions and threshold levels of vibration that could damage the structure and/or substantially interfere with activities located at the Paramount Theatre. The vibration analysis shall identify design means and methods of construction that shall be utilized in order to not exceed the thresholds. The applicant shall implement the recommendations during construction.</p>	Prior to construction	Bureau of Building	Bureau of Building
<p><b>SCA-CULT-2: Archaeologically Sensitive Areas – Pre-Construction Measures (#30)</b> <u>Requirement:</u> The project applicant shall implement either Provision A (Intensive Pre-Construction Study) or Provision B (Construction ALERT Sheet) concerning archaeological resources. <b>Provision A: Intensive Pre-Construction Study.</b> The project applicant shall retain a qualified archaeologist to conduct a site-specific, intensive archaeological resources study for review and approval by the City prior to soil-disturbing activities occurring on the project site. The purpose of the site-specific, intensive archaeological resources study is to identify early the potential presence of history-period archaeological resources on the project site. At a minimum, the study shall include:</p> <p><b>a.</b> Subsurface presence/absence studies of the project site. Field studies may include,</p>			



STANDARD CONDITION OF APPROVALS AND MITIGATION MEASURES MONITORING AND REPORTING PROGRAM			
Standard Conditions of Approval/ Mitigation Measures	Standard Conditions of Approval and Mitigation Measures Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
<p>but are not limited to, auguring and other common methods used to identify the presence of archaeological resources.</p> <p><b>b.</b> A report disseminating the results of this research.</p> <p><b>c.</b> Recommendations for any additional measures that could be necessary to mitigate any adverse impacts to recorded and/or inadvertently discovered cultural resources.</p> <p>If the results of the study indicate a high potential presence of historic-period archaeological resources on the project site, or a potential resource is discovered, the project applicant shall hire a qualified archaeologist to monitor any ground disturbing activities on the project site during construction and prepare an ALERT sheet pursuant to Provision B below that details what could potentially be found at the project site. Archaeological monitoring would include briefing construction personnel about the type of artifacts that may be present (as referenced in the ALERT sheet, required per Provision B below) and the procedures to follow if any artifacts are encountered, field recording and sampling in accordance with the Secretary of Interior's Standards and Guidelines for Archaeological Documentation, notifying the appropriate officials if human remains or cultural resources are discovered, and preparing a report to document negative findings after construction is completed if no archaeological resources are discovered during construction.</p> <p><b>Provision B: Construction ALERT Sheet.</b></p> <p>The project applicant shall prepare a construction "ALERT" sheet developed by a qualified archaeologist for review and approval by the City prior to soil-disturbing activities occurring on the project site. The ALERT sheet shall contain, at a minimum, visuals that depict each type of artifact that could be encountered on the project site. Training by the qualified archaeologist shall be provided to the project's prime contractor, any project subcontractor firms (including demolition, excavation, grading, foundation, and pile driving), and utility firms involved in soil-disturbing activities within the project site.</p> <p>The ALERT sheet shall state, in addition to the basic archaeological resource protection measures contained in other standard conditions of approval, all work must stop and the City's Environmental Review Officer contacted in the event of discovery of the following cultural materials: concentrations of shellfish remains; evidence of fire (ashes, charcoal, burnt earth, fire-cracked rocks); concentrations of bones; recognizable Native American artifacts (arrowheads, shell beads, stone mortars [bowls], humanly shaped rock); building foundation remains; trash pits, privies (outhouse holes); floor remains; wells; concentrations of bottles, broken dishes, shoes, buttons, cut animal bones, hardware, household items, barrels, etc.; thick layers of burned building debris (charcoal, nails, fused glass, burned plaster, burned dishes); wood structural remains (building, ship, wharf); clay roof/floor tiles; stone walls or footings; or gravestones. Prior to any soil-disturbing activities, each contractor shall be responsible for ensuring that the ALERT sheet is circulated to all field personnel, including machine operators, field crew, pile drivers, and supervisory personnel. The ALERT sheet shall also be posted in a visible location at the project site.</p>			
<p><b>Mitigation Measure HIST-2a:</b> A pre-construction archaeological testing program shall be implemented to help identify whether historic or unique archaeological resources exist within the Project site:</p> <p><i>The testing program, in conjunction with a sensitivity study, shall use a combination of subsurface investigation methods (including backhoe trenching, augering, and archaeological excavation units, as appropriate). The purpose of the testing program is to: (1) identify the presence and location of potentially-significant archaeological deposits; (2) determine if such deposits meet the definition of a historical resource or unique archaeological resource under section 21083.2(g) of the CEQA statutes; (3) guide additional archaeological work, if warranted, to recover the information potential of such deposits; and (4) refine the archaeological</i></p>	Prior to approval of a grading permit	N/A	City of Oakland Community and Economic Development Agency, Planning Division

STANDARD CONDITION OF APPROVALS AND MITIGATION MEASURES MONITORING AND REPORTING PROGRAM			
Standard Conditions of Approval/ Mitigation Measures	Standard Conditions of Approval and Mitigation Measures Implementation/Monitoring		
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<p><i>monitoring plan.</i></p> <p><i>If historic or unique archaeological resources associated with the Chinese community are identified within the project site and are further determined to be unique, the City shall consult with representatives of an established local Chinese-American organization(s) regarding the potential use of the archaeological findings for interpretive purposes.</i></p> <p><b>Mitigation Measure HIST-2b:</b> <i>Archaeological monitoring of ground-disturbing construction in the Project area shall be conducted, as appropriate and if necessary, based on the results of the pre-construction testing program and the potential for encountering unidentified archaeological deposits. Upon completion of the pre-construction testing program specified in Mitigation Measure HIST-2a, the extent of archaeological monitoring during Project construction will be assessed, and the scope and frequency of the monitoring required by this mitigation measure shall be based on the findings of this assessment. Monitoring shall be conducted by a cultural resource professional approved by the City who meets the Secretary of the Interior's Professional Qualifications Standards for Prehistoric and Historical Archaeology.</i></p> <p><i>Upon completion of such archaeological monitoring, evaluation, or data recovery mitigation, the archaeologist shall prepare a report documenting the methods, results, and recommendations of the investigation, and submit this report to the NWIC. Public displays of the findings of archaeological recovery excavation(s) of historical or unique resources shall be prepared. As appropriate, brochures, pamphlets, or other media, shall be prepared for distribution to schools, museums, libraries, and - in the case of Chinese-American archaeological deposits - Chinese-American organizations.</i></p>			
<p><b>Mitigation Measure HIST-1a:</b> <i>A paleontological resources monitoring plan shall be developed in consultation with a qualified paleontologist prior to Project-related ground-disturbing activities. This monitoring plan shall incorporate the findings of Project-specific geotechnical investigations to identify the location and depth of deposits that have a high likelihood of containing paleontological resources and that may be encountered by Project activities. This information will indicate the depth of overlying non-sensitive soils (i.e., artificial fill and prior disturbance) within the Project area to allow a more effective determination of where paleontological monitoring is appropriate.</i></p>	Prior to approval of a grading permit	N/A	City of Oakland Community and Economic Development Agency, Planning Division
<p><b>SCA-CULT-3:</b> <i>Archaeological and Paleontological Resources - Discovery During Construction (#29).</i></p> <p><i>Pursuant to CEQA Guidelines Section 15064.5(f), in the event that any historic or prehistoric subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and the project applicant shall notify the City and consult with a qualified archaeologist or paleontologist, as applicable, to assess the significance of the find. In the case of discovery of paleontological resources, the assessment shall be done in accordance with the Society of Vertebrate Paleontology standards. If any find is determined to be significant, appropriate avoidance measures recommended by the consultant and approved by the City must be followed unless avoidance is determined unnecessary or infeasible by the City. Feasibility of avoidance shall be determined with consideration of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery, excavation) shall be instituted. Work may proceed on other parts of the project site while measures for the cultural resources are implemented.</i></p> <p><i>In the event of data recovery of archaeological resources, the project applicant shall submit an Archaeological Research Design and Treatment Plan (ARDTP) prepared by a qualified archaeologist for review and approval by the City. The ARDTP is required to identify how the proposed data recovery program would preserve the significant information the archaeological</i></p>	During construction	Bureau of Building	Bureau of Building

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<p>resource is expected to contain. The ARDTP shall identify the scientific/historic research questions applicable to the expected resource, the data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. The ARDTP shall include the analysis and specify the curation and storage methods. Data recovery, in general, shall be limited to the portions of the archaeological resource that could be impacted by the proposed project. Destructive data recovery methods shall not be applied to portions of the archaeological resources if nondestructive methods are practicable. Because the intent of the ARDTP is to save as much of the archaeological resource as possible, including moving the resource, if feasible, preparation and implementation of the ARDTP would reduce the potential adverse impact to less than significant. The project applicant shall implement the ARDTP at his/her expense.</p> <p>In the event of excavation of paleontological resources, the project applicant shall submit an excavation plan prepared by a qualified paleontologist to the City for review and approval. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and/or a report prepared by a qualified paleontologist, as appropriate, according to current professional standards and at the expense of the project applicant.</p>			
<p><b>Mitigation Measure HIST-1b:</b> A qualified paleontologist shall monitor all ground- disturbing activity that occurs at depths within the Project area determined to be sensitive in the paleontological monitoring plan. Monitoring shall continue until, in the paleontologist's opinion, significant, nonrenewable paleontological resources are unlikely to occur.</p>	Prior to approval of a grading permit		City of Oakland Community and Economic Development Agency, Planning Division.
<p><b>SCA-CULT-4:</b> Human Remains – Discovery During Construction (#31). Pursuant to CEQA Guidelines section 15064.5(e)(1), in the event that human skeletal remains are uncovered at the project site during construction activities, all work shall immediately halt and the project applicant shall notify the City and the Alameda County Coroner. If the County Coroner determines that an investigation of the cause of death is required or that the remains are Native American, all work shall cease within 50 feet of the remains until appropriate arrangements are made. In the event that the remains are Native American, the City shall contact the California Native American Heritage Commission (NAHC), pursuant to subdivision (c) of Section 7050.5 of the California Health and Safety Code. If the agencies determine that avoidance is not feasible, then an alternative plan shall be prepared with specific steps and timeframe required to resume construction activities. Monitoring, data recovery, determination of significance, and avoidance measures (if applicable) shall be completed expeditiously and at the expense of the project applicant.</p>	During construction	N/A	Bureau of Building
<p><b>Mitigation Measure HIST-13:</b> Prior to Project initiation, the plan for the enhancement of street features and lighting on Telegraph Avenue shall be reviewed by planning staff to ensure that it conforms to the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Preservation of Historic Buildings. Conformance with these guidelines will ensure that these improvements are compatible with nearby historical resources, and will mitigate potential Project effects to less-than-significant levels.</p>	Prior to the implementation of the Telegraph Avenue street features and lighting plan.	N/A	City of Oakland Community and Economic Development Agency, Planning Division.
<b>Geology, Soils and Geohazards</b>			
<p><b>SCA-GEO-1:</b> Construction-Related Permit(s) (#33). The project applicant shall obtain all required construction-related permits/approvals from the City. The project shall comply with all standards, requirements and conditions contained in construction-related codes, including but not limited to the Oakland Building Code and the Oakland Grading Regulations, to ensure structural integrity and safe construction.</p>	Prior to approval of construction-related permit	Bureau of Building	Bureau of Building
<p><b>SCA-GEO-2:</b> Soils Report (#34). The project applicant shall submit a soils report prepared by a registered geotechnical engineer for City review and approval. The soils report shall contain, at a minimum, field test results and observations regarding the nature, distribution and strength of existing soils, and</p>	Prior to approval of construction-related permit	Bureau of Building	Bureau of Building

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recommendations for appropriate grading practices and project design. The project applicant shall implement the recommendations contained in the approved report during project design and construction.			
SCA-HYD-1: Erosion and Sedimentation Control Plan for Construction (#45).  See SCA-HYD-1 below.	See SCA-HYD-1 below.	See SCA-HYD-1 below.	See SCA-HYD-1 below.
<b>Greenhouse Gas Emissions/Global Climate Change</b>			
SCA-TRANS-1: Transportation and Parking Demand Management (#71).  See SCA-TRANS-1 below.	See SCA-TRANS-1 below.	See SCA-TRANS-1 below.	See SCA-TRANS-1 below.
SCA-UTIL-4: Construction and Demolition Waste Reduction and Recycling (#74). See SCA-UTIL-4 below.	See SCA-UTIL-4 below.	See SCA-UTIL-4 below.	See SCA-UTIL-4 below.
<b>Hazards and Hazardous Materials</b>			
<p>SCA-HAZ-1: Hazardous Building Materials and Site Contamination (#40).</p> <p><i>a. Hazardous Building Materials Assessment</i> The project applicant shall submit a comprehensive assessment report to the Bureau of Building, signed by a qualified environmental professional, documenting the presence or lack thereof of asbestos-containing materials (ACMs), lead-based paint, polychlorinated biphenyls (PCBs), and any other building materials or stored materials classified as hazardous waste by State or federal law. If lead-based paint, ACMs, PCBs, or any other building materials or stored materials classified as hazardous waste are present, the project applicant shall submit specifications signed by a qualified environmental professional, for the stabilization and/or removal of the identified hazardous materials in accordance with all applicable laws and regulations.</p> <p><i>b. Environmental Site Assessment Required</i> The project applicant shall submit a Phase I Environmental Site Assessment report, and Phase II Environmental Site Assessment report if warranted by the Phase I report, for the project site for review and approval by the City. The report(s) shall be prepared by a qualified environmental assessment professional and include recommendations for remedial action, as appropriate, for hazardous materials. The project applicant shall implement the approved recommendations and submit to the City evidence of approval for any proposed remedial action and required clearances by the applicable local, state, or federal regulatory agency.</p> <p><i>c. Health and Safety Plan Required</i> The project applicant shall submit a Health and Safety Plan for the review and approval by the City in order to protect project construction workers from risks associated with hazardous materials. The project applicant shall implement the approved Plan.</p> <p><i>d. Best Management Practices (BMPs) Required for Contaminated Sites</i> The project applicant shall ensure that Best Management Practices (BMPs) are implemented by the contractor during construction to minimize potential soil and groundwater hazards. These shall include the following:</p> <p><i>i.</i> Soil generated by construction activities shall be stockpiled on-site in a secure and safe manner. All contaminated soils determined to be hazardous or non-hazardous waste must be</p>	<p>a. Prior to approval of demolition, grading, or building permits</p> <p>b. Prior to approval of construction-related permit</p> <p>c. Prior to approval of construction-related permit</p> <p>d. During construction</p>	<p>a. Bureau of Building</p> <p>b. Applicable regulatory agency with jurisdiction</p> <p>c. Bureau of Building</p> <p>d. N/A</p>	<p>a. Bureau of Building</p> <p>b. Applicable regulatory agency with jurisdiction</p> <p>c. Bureau of Building</p> <p>d. Bureau of Building</p>

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<p>adequately profiled (sampled) prior to acceptable reuse or disposal at an appropriate off-site facility. Specific sampling and handling and transport procedures for reuse or disposal shall be in accordance with applicable local, state, and federal requirements.</p> <p>ii. Groundwater pumped from the subsurface shall be contained on-site in a secure and safe manner, prior to treatment and disposal, to ensure environmental and health issues are resolved pursuant to applicable laws and policies. Engineering controls shall be utilized, which include impermeable barriers to prohibit groundwater and vapor intrusion into the building.</p> <p>When Required: During construction Initial Approval: N/A Monitoring/Inspection: Bureau of Building</p>			
<p><b>Mitigation Measure HAZ-1a:</b> Prior to issuing any grading, demolition or building permits for the proposed Project affecting Project site Blocks 3 through 9, an environmental investigation shall be conducted at the site by a qualified environmental professional. The environmental investigation shall implement appropriate sampling recommendations presented in previously conducted Phase I site assessment(s) prepared for the Project site, as summarized in Table IV.G-3, in order to adequately characterize subsurface conditions of the site. Environmental investigation work plans shall be submitted to the City of Oakland and RWQCB for review and approval. Information from the environmental investigation shall be used to develop and implement site-specific health and safety plans for construction workers and best management practices (e.g., dust control, storm water runoff control, etc.) appropriate to protect the general public.</p> <p><b>Mitigation Measure HAZ-1c:</b> Prior to issuing any grading, demolition, or building permit for the proposed Project, a Soil and Groundwater Management Plan (Plan) shall be prepared. The Plan shall include procedures for managing soils and groundwater removed from the site to ensure that any excavated soils and/or dewatered groundwater with contaminants are stored, managed, and disposed of safely, in accordance with applicable regulations. The Plan will incorporate notification and dust mitigation requirements of the BAAQMD (including Title 17, CCR Section 93105). Dewatering procedures will incorporate regulatory requirements for groundwater discharge to storm or sanitary sewers, as outlined in Mitigation Measure HYD-3. The Plan shall be submitted to the City of Oakland and RWQCB for review and approval and shall be implemented throughout all phases of Project development.</p>	<p>Prior to approval of construction-related permit</p> <p>Prior to approval of the demolition, grading, or building permit</p>	<p>N/A</p> <p>N/A</p>	<p>City of Oakland, Public Works Agency, Environmental Services Division</p> <p>City of Oakland, Public Works Agency, Environmental Services Division; Regional Water Quality Control Board (RWQCB)</p>
<p><b>SCA-HAZ-2:</b> Hazardous Materials Related to Construction (#39). The project applicant shall ensure that Best Management Practices (BMPs) are implemented by the contractor during construction to minimize potential negative effects on groundwater, soils, and human health. These shall include, at a minimum, the following:</p> <ol style="list-style-type: none"> <li>Follow manufacturer's recommendations for use, storage, and disposal of chemical products used in construction;</li> <li>Avoid overtopping construction equipment fuel gas tanks;</li> <li>During routine maintenance of construction equipment, properly contain and remove grease and oils;</li> <li>Properly dispose of discarded containers of fuels and other chemicals;</li> <li>Implement lead-safe work practices and comply with all local, regional, state, and federal requirements concerning lead (for more information refer to the Alameda County Lead Poisoning Prevention Program); and</li> <li>If soil, groundwater, or other environmental medium with suspected contamination is encountered unexpectedly during construction activities (e.g., identified by odor or visual staining, or if any underground storage tanks, abandoned drums or other hazardous materials or wastes are encountered), the project applicant shall cease work in the vicinity of the suspect material, the area shall be secured as necessary, and the applicant shall take all appropriate measures to protect human health and the environment. Appropriate measures</li> </ol>	<p>During construction</p>	<p>N/A</p>	<p>Bureau of Building</p>

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shall include notifying the City and applicable regulatory agency(ies) and implementation of the actions described in the City's Standard Conditions of Approval, as necessary, to identify the nature and extent of contamination. Work shall not resume in the area(s) affected until the measures have been implemented under the oversight of the City or regulatory agency, as appropriate.			
<b>Mitigation Measure HAZ-2a:</b> Covenants, codes, and restrictions for the proposed Project shall strictly prohibit the use of groundwater at the Project site for drinking, irrigation, or industrial purposes.  Any dewatering activities required at the Project site following construction activities shall be required to be carried out under the Soil and Groundwater Management Plan prepared for the Project (Mitigation Measure HAZ-1c).	Prior to approval of the Final Map	N/A	City of Oakland, Public Works Agency, Environmental Services Division
<b>Mitigation Measure HAZ-2b:</b> Prior to issuing any permits for construction within the Project site, a Human Health Risk Assessment (HHRA) shall be conducted and/or updated by a qualified environmental professional. This HHRA shall employ methodology from the City of Oakland Urban Land Redevelopment: Guidance Document for the Oakland Risk Based Corrective Action (RBCA) program to evaluate potential health risks from petroleum hydrocarbons, metals, solvents, and other volatile organic compounds in soils and groundwater. Depending on the findings of the HHRA, recommendations may be made for administrative or engineering controls to minimize public exposure to hazardous materials, if warranted. These controls could potentially include vapor barriers for building foundations, encapsulation of the site with building foundations and paved parking surfaces to prevent exposure to soils, and implementation of an Operations and Maintenance Plan to insure prescribed controls are implemented and maintained. The controls shall ensure that any potential added health risks to future site users are reduced to a cumulative risk of less than $1 \times 10^{-5}$ (a calculated risk of 1 in 100,000 persons exposed) for carcinogens and a cumulative hazard index of 1.0. The HHRA shall be submitted to the City of Oakland and RWQCB for review and approval.	Prior to approval of the demolition, grading, or building permit	N/A	City of Oakland, Public Works Agency, Environmental Services Division; Regional Water Quality Control Board (RWQCB)
<b>Hydrology and Water Quality</b>			
<b>SCA-HYD-1:</b> Erosion and Sedimentation Control Plan for Construction (#45). a. <i>Erosion and Sedimentation Control Plan Required.</i> The project applicant shall submit an Erosion and Sedimentation Control Plan to the City for review and approval. The Erosion and Sedimentation Control Plan shall include all necessary measures to be taken to prevent excessive stormwater runoff or carrying by stormwater runoff of solid materials on to lands of adjacent property owners, public streets, or to creeks as a result of conditions created by grading and/or construction operations. The Plan shall include, but not be limited to, such measures as short-term erosion control planting, waterproof slope covering, check dams, interceptor ditches, benches, storm drains, dissipation structures, diversion dikes, retarding berms and barriers, devices to trap, store and filter out sediment, and stormwater retention basins. Off-site work by the project applicant may be necessary. The project applicant shall obtain permission or easements necessary for off-site work. There shall be a clear notation that the plan is subject to changes as changing conditions occur. Calculations of anticipated stormwater runoff and sediment volumes shall be included, if required by the City. The Plan shall specify that, after construction is complete, the project applicant shall ensure that the storm drain system shall be inspected and that the project applicant shall clear the system of any debris or sediment. b. <i>Erosion and Sedimentation Control During Construction.</i> The project applicant shall implement the approved Erosion and Sedimentation Control Plan. No grading shall occur during the wet weather season (October 15 through April 15) unless specifically authorized in writing by the Bureau of Building.	a. Prior to approval of construction-related permit  b. During construction	a. Bureau of Building  b. N/A	a. N/A  b. Bureau of Building
<b>SCA-HYD-2:</b> NPDES C.3 Stormwater Requirements for Regulated Projects (#50). a. <i>Post-Construction Stormwater Management Plan Required.</i> The project applicant shall comply with the requirements of Provision C.3 of the Municipal Regional Stormwater Permit issued	a. Prior to approval of construction-related permit	a. Bureau of Planning; Bureau of Building  b. Bureau of Building	A. Bureau of Building  b. Bureau of Building

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<p>under the National Pollutant Discharge Elimination System (NPDES). The project applicant shall submit a Post-Construction Stormwater Management Plan to the City for review and approval with the project drawings submitted for site improvements, and shall implement the approved Plan during construction. The Post-Construction Stormwater Management Plan shall include and identify the following:</p> <ul style="list-style-type: none"> <li>i. Location and size of new and replaced impervious surface;</li> <li>ii. Directional surface flow of stormwater runoff;</li> <li>iii. Location of proposed on-site storm drain lines;</li> <li>iv. Site design measures to reduce the amount of impervious surface area;</li> <li>v. Source control measures to limit stormwater pollution;</li> <li>vi. Stormwater treatment measures to remove pollutants from stormwater runoff, including the method used to hydraulically size the treatment measures; and</li> <li>vii. Hydromodification management measures, if required by Provision C.3, so that post-project stormwater runoff flow and duration match pre-project runoff.</li> </ul> <p>b. <i>Maintenance Agreement Required.</i> The project applicant shall enter into a maintenance agreement with the City, based on the Standard City of Oakland Stormwater Treatment Measures Maintenance Agreement, in accordance with Provision C.3, which provides, in part, for the following:</p> <ul style="list-style-type: none"> <li>i. The project applicant accepting responsibility for the adequate installation/construction, operation, maintenance, inspection, and reporting of any on-site stormwater treatment measures being incorporated into the project until the responsibility is legally transferred to another entity; and</li> <li>ii. Legal access to the on-site stormwater treatment measures for representatives of the City, the local vector control district, and staff of the Regional Water Quality Control Board, San Francisco Region, for the purpose of verifying the implementation, operation, and maintenance of the on-site stormwater treatment measures and to take corrective action if necessary.</li> </ul> <p>The maintenance agreement shall be recorded at the County Recorder's Office at the applicant's expense.</p>	<p>b. Prior to building permit final</p>		
<p><b>SCA-HAZ-1: Hazardous Building Materials and Site Contamination (#40).</b> (see above).</p>	<p>Hazardous Building Materials and Site Contamination (#40). (see above).</p>	<p>Hazardous Building Materials and Site Contamination (#40). (see above).</p>	<p>Hazardous Building Materials and Site Contamination (#40). (see above).</p>
<p><b>Noise</b></p>			
<p><b>SCA-NOI-1: Construction Days/Hours (#58).</b></p> <p>The project applicant shall comply with the following restrictions concerning construction days and hours:</p> <ul style="list-style-type: none"> <li>a. Construction activities are limited to between 7:00 a.m. and 7:00 p.m. Monday through Friday, except that pier drilling and/or other extreme noise generating activities greater than 90 dBA shall be limited to between 8:00 a.m. and 4:00 p.m.</li> <li>b. Construction activities are limited to between 9:00 a.m. and 5:00 p.m. on Saturday. In residential zones and within 300 feet of a residential zone, construction activities are allowed from 9:00 a.m. to 5:00 p.m. only within the interior of the building with the doors and windows closed. No pier drilling or other extreme noise generating activities greater than 90 dBA are allowed on Saturday.</li> <li>c. No construction is allowed on Sunday or federal holidays.</li> </ul> <p>Construction activities include, but are not limited to, truck idling, moving equipment (including trucks, elevators, etc.) or materials, deliveries, and construction meetings held on-site in a non-enclosed area.</p> <p>Any construction activity proposed outside of the above days and hours for special activities</p>	<p>During construction</p>	<p>N/A</p>	<p>Bureau of Building</p>

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(such as concrete pouring which may require more continuous amounts of time) shall be evaluated on a case-by-case basis by the City, with criteria including the urgency/emergency nature of the work, the proximity of residential or other sensitive uses, and a consideration of nearby residents'/occupants' preferences. The project applicant shall notify property owners and occupants located within 300 feet at least 14 calendar days prior to construction activity proposed outside of the above days/hours. When submitting a request to the City to allow construction activity outside of the above days/hours, the project applicant shall submit information concerning the type and duration of proposed construction activity and the draft public notice for City review and approval prior to distribution of the public notice.			
<p><b>SCA-NOI-2: Construction Noise (#59).</b>  The project applicant shall implement noise reduction measures to reduce noise impacts due to construction. Noise reduction measures include, but are not limited to, the following:</p> <ol style="list-style-type: none"> <li>Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds) wherever feasible.</li> <li>Except as provided herein, impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, if such jackets are commercially available, and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures.</li> <li>Applicant shall use temporary power poles instead of generators where feasible.</li> <li>Stationary noise sources shall be located as far from adjacent properties as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures as determined by the City to provide equivalent noise reduction.</li> <li>The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented.</li> </ol>	During construction	N/A	Bureau of Building
<p><b>SCA-NOI-3: Extreme Construction Noise (#60).</b>  <i>a. Construction Noise Management Plan Required.</i> Prior to any extreme noise generating construction activities (e.g., pier drilling, pile driving and other activities generating greater than 90dBA), the project applicant shall submit a Construction Noise Management Plan prepared by a qualified acoustical consultant for City review and approval that contains a set of site-specific noise attenuation measures to further reduce construction impacts associated with extreme noise generating activities. The project applicant shall implement the approved Plan during construction. Potential attenuation measures include, but are not limited to, the following:</p> <ol style="list-style-type: none"> <li>Erect temporary plywood noise barriers around the construction site, particularly along on sites adjacent to residential buildings;</li> <li>Implement "quiet" pile driving technology (such as pre-drilling of piles, the use of more than one pile driver to shorten the total pile driving duration), where feasible, in consideration of geotechnical and structural requirements and conditions;</li> <li>Utilize noise control blankets on the building structure as the building is erected to reduce noise emission from the site;</li> <li>Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings by the use of sound blankets for example and implement such measure if such measures are feasible and would noticeably reduce noise impacts; and</li> </ol>	<ol style="list-style-type: none"> <li>Prior to approval of construction-related permit</li> <li>During construction</li> </ol>	<ol style="list-style-type: none"> <li>Bureau of Building</li> <li>Bureau of Building</li> </ol>	<ol style="list-style-type: none"> <li>Bureau of Building</li> <li>Bureau of Building</li> </ol>



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<p>v. Monitor the effectiveness of noise attenuation measures by taking noise measurements.</p> <p>b. <i>Public Notification Required.</i> The project applicant shall notify property owners and occupants located within 300 feet of the construction activities at least 14 calendar days prior to commencing extreme noise generating activities. Prior to providing the notice, the project applicant shall submit to the City for review and approval the proposed type and duration of extreme noise generating activities and the proposed public notice. The public notice shall provide the estimated start and end dates of the extreme noise generating activities and describe noise attenuation measures to be implemented.</p>			
<p><b>SCA-NOI-4: Construction Noise Complaints (#62).</b> The project applicant shall submit to the City for review and approval a set of procedures for responding to and tracking complaints received pertaining to construction noise, and shall implement the procedures during construction. At a minimum, the procedures shall include:</p> <p>a. Designation of an on-site construction complaint and enforcement manager for the project;</p> <p>b. A large on-site sign near the public right-of-way containing permitted construction days/hours, complaint procedures, and phone numbers for the project complaint manager and City Code Enforcement unit;</p> <p>c. Protocols for receiving, responding to, and tracking received complaints; and</p> <p>d. Maintenance of a complaint log that records received complaints and how complaints were addressed, which shall be submitted to the City for review upon the City's request.</p> <p>Also see <b>SCA-NOI-2: Construction Noise (#59)</b>, and <b>SCA-NOI-3: Extreme Construction Noise (#60)</b> listed above.</p>	Prior to approval of construction-related permit	Bureau of Building	Bureau of Building
<p><b>SCA NOI 5: Operational Noise (#64).</b> Noise levels from the project site after completion of the project (i.e., during project operation) shall comply with the performance standards of chapter 17.120 of the Oakland Planning Code and chapter 8.18 of the Oakland Municipal Code. If noise levels exceed these standards, the activity causing the noise shall be abated until appropriate noise reduction measures have been installed and compliance verified by the City.</p>	Ongoing	N/A	Bureau of Building
<p><b>SCA-NOI-6: Exposure to Community Noise (#63).</b> The project applicant shall submit a Noise Reduction Plan prepared by a qualified acoustical engineer for City review and approval that contains noise reduction measures (e.g., sound-rated window, wall, and door assemblies) to achieve an acceptable interior noise level in accordance with the land use compatibility guidelines of the Noise Element of the Oakland General Plan. The applicant shall implement the approved Plan during construction. To the maximum extent practicable, interior noise levels shall not exceed the following:</p> <p>a. 45 dBA: Residential activities, civic activities, hotels</p> <p>b. 50 dBA: Administrative offices; group assembly activities</p> <p>c. 55 dBA: Commercial activities</p> <p>d. 65 dBA: Industrial activities</p>	Prior to approval of construction-related permit	Bureau of Planning	Bureau of Building
<p><b>SCA-CULT-1: Vibration Impacts on Adjacent Historic Structures or Vibration-Sensitive Activities (#66).</b> See <b>SCA-CULT-1</b> above.</p>	See <b>SCA-CULT-1</b> above.	See <b>SCA-CULT-1</b> above.	See <b>SCA-CULT-1</b> above.
<b>Public Services Parks and Recreation</b>			
<p><b>SCA-PUB-1: Public Improvements (#11)</b> The project applicant shall obtain all necessary permits/approvals, such as encroachment permits, obstruction permits, curb/gutter/sidewalk permits, and public improvement ("p-job") permits from the City for work in the public right-of-way, including but not limited to, streets, curbs, gutters, sidewalks, utilities, and fire hydrants. Prior to any work in the public right-of-way,</p>	N/A	N/A	N/A

STANDARD CONDITION OF APPROVALS AND MITIGATION MEASURES MONITORING AND REPORTING PROGRAM			
Standard Conditions of Approval/ Mitigation Measures	Standard Conditions of Approval and Mitigation Measures Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
the applicant shall submit plans for review and approval by the Bureau of Planning, the Bureau of Building, and other City departments as required. Public improvements shall be designed and installed to the satisfaction of the City.			
<b>Transportation and Circulation</b>			
<p><b>SCA-Trans-1: Transportation and Parking Demand Management (#71).</b></p> <p>a. Transportation and Parking Demand Management (TDM) Plan Required The project applicant shall submit a Transportation and Parking Demand Management (TDM) Plan for review and approval by the City.</p> <p>The goals of the TDM Plan shall be the following:</p> <ul style="list-style-type: none"> <li>• Reduce vehicle traffic and parking demand generated by the project to the maximum extent practicable, consistent with the potential traffic and parking impacts of the project.</li> <li>• Achieve the following project vehicle trip reductions (VTR):</li> <li>• Projects generating 50-99 net new a.m. or p.m. peak hour vehicle trips: 10 percent VTR</li> <li>• Projects generating 100 or more net new a.m. or p.m. peak hour vehicle trips: 20 percent VTR</li> <li>• Increase pedestrian, bicycle, transit, and carpool/vanpool modes of travel. All four modes of travel shall be considered, as appropriate.</li> <li>• Enhance the City's transportation system, consistent with City policies and programs.</li> </ul> <p>TDM strategies to consider include, but are not limited to, the following:</p> <ul style="list-style-type: none"> <li>• Inclusion of additional long-term and short-term bicycle parking that meets the design standards set forth in chapter five of the Bicycle Master Plan and the Bicycle Parking Ordinance (chapter 17.117 of the Oakland Planning Code), and shower and locker facilities in commercial developments that exceed the requirement.</li> <li>• Construction of and/or access to bikeways per the Bicycle Master Plan; construction of priority bikeways, on-site signage and bike lane striping.</li> <li>• Installation of safety elements per the Pedestrian Master Plan (such as crosswalk striping, curb ramps, count down signals, bulb outs, etc.) to encourage convenient and safe crossing at arterials, in addition to safety elements required to address safety impacts of the project.</li> <li>• Installation of amenities such as lighting, street trees, and trash receptacles per the Pedestrian Master Plan and any applicable streetscape plan.</li> <li>• Construction and development of transit stops/shelters, pedestrian access, way finding signage, and lighting around transit stops per transit agency plans or negotiated improvements.</li> <li>• Direct on-site sales of transit passes purchased and sold at a bulk group rate (through programs such as AC Transit Easy Pass or a similar program through another transit agency).</li> <li>• Provision of a transit subsidy to employees or residents, determined by the project applicant and subject to review by the City, if employees or residents use transit or commute by other alternative modes.</li> <li>• Provision of an ongoing contribution to transit service to the area between the project and nearest mass transit station prioritized as follows: 1) Contribution to AC Transit bus service; 2) Contribution to an existing area shuttle service; and 3) Establishment of new shuttle service. The amount of contribution (for any of the above scenarios) would be based upon the cost of establishing new shuttle service (Scenario 3).</li> <li>• Guaranteed ride home program for employees, either through 511.org or through separate program.</li> <li>• Pre-tax commuter benefits (commuter checks) for employees.</li> </ul>	<p>a. Prior to approval of construction-related permit</p> <p>b. Prior to building permit final Initial</p> <p>c. Ongoing</p>	<p>a. Bureau of Planning</p> <p>b. Bureau of Building</p> <p>c. Bureau of Planning</p>	<p>a. N/A</p> <p>b. Bureau of Building</p> <p>c. Bureau of Planning</p>

**STANDARD CONDITION OF APPROVALS AND MITIGATION MEASURES MONITORING AND REPORTING PROGRAM**

Standard Conditions of Approval/ Mitigation Measures	Standard Conditions of Approval and Mitigation Measures Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
<ul style="list-style-type: none"> <li>Free designated parking spaces for on-site car-sharing program (such as City Car Share, Zip Car, etc.) and/or car-share membership for employees or tenants.</li> <li>On-site carpooling and/or vanpool program that includes preferential (discounted or free) parking for carpools and vanpools.</li> <li>Distribution of information concerning alternative transportation options.</li> <li>Parking spaces sold/leased separately for residential units. Charge employees for parking, or provide a cash incentive or transit pass alternative to a free parking space in commercial properties.</li> <li>Parking management strategies including attendant/valet parking and shared parking spaces.</li> <li>Requiring tenants to provide opportunities and the ability to work off-site.</li> <li>Allow employees or residents to adjust their work schedule in order to complete the basic work requirement of five eight-hour workdays by adjusting their schedule to reduce vehicle trips to the worksite (e.g., working four, ten-hour days; allowing employees to work from home two days per week).</li> <li>Provide or require tenants to provide employees with staggered work hours involving a shift in the set work hours of all employees at the workplace or flexible work hours involving individually determined work hours.</li> <li>The TDM Plan shall indicate the estimated VTR for each strategy, based on published research or guidelines where feasible. For TDM Plans containing ongoing operational VTR strategies, the Plan shall include an ongoing monitoring and enforcement program to ensure the Plan is implemented on an ongoing basis during project operation. If an annual compliance report is required, as explained below, the TDM Plan shall also specify the topics to be addressed in the annual report.</li> </ul> <p>b. TDM Implementation - Physical Improvements For VTR strategies involving physical improvements, the project applicant shall obtain the necessary permits/approvals from the City and install the improvements prior to the completion of the project.</p> <p>c. TDM Implementation - Operational Strategies For projects that generate 100 or more net new a.m. or p.m. peak hour vehicle trips and contain ongoing operational VTR strategies, the project applicant shall submit an annual compliance report for the first five years following completion of the project (or completion of each phase for phased projects) for review and approval by the City. The annual report shall document the status and effectiveness of the TDM program, including the actual VTR achieved by the project during operation. If deemed necessary, the City may elect to have a peer review consultant, paid for by the project applicant, review the annual report. If timely reports are not submitted and/or the annual reports indicate that the project applicant has failed to implement the TDM Plan, the project will be considered in violation of the Conditions of Approval and the City may initiate enforcement action as provided for in these Conditions of Approval. The project shall not be considered in violation of this Condition if the TDM Plan is implemented but the VTR goal is not achieved.</p>			
<b>Utilities and Service Systems</b>			
<p><b>SCA-UTIL-1: Sanitary Sewer System (#79).</b> The project applicant shall prepare and submit a Sanitary Sewer Impact Analysis to the City for review and approval in accordance with the City of Oakland Sanitary Sewer Design Guidelines. The Impact Analysis shall include an estimate of pre-project and post-project wastewater flow from the project site. In the event that the Impact Analysis indicates that the net increase in project wastewater flow exceeds City-projected increases in wastewater flow in the sanitary sewer system, the project applicant shall pay the Sanitary Sewer Impact Fee in accordance with</p>	Prior to approval of construction-related permit	Public Works Department, Department of Engineering and Construction	N/A

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Standard Conditions of Approval/ Mitigation Measures	Standard Conditions of Approval and Mitigation Measures Implementation/Monitoring		
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the City's Master Fee Schedule for funding improvements to the sanitary sewer system.			
<b>SCA-UTIL-2: Storm Drain System (#80).</b> The project storm drainage system shall be designed in accordance with the City of Oakland's Storm Drainage Design Guidelines. To the maximum extent practicable, peak stormwater runoff from the project site shall be reduced by at least 25 percent compared to the pre-project condition.	Prior to approval of construction-related permit	Bureau of Building	Bureau of Building
<b>SCA-UTIL-3: Recycled Water (#81).</b> Pursuant to section 16.08.030 of the Oakland Municipal Code, the project applicant shall provide for the use of recycled water in the project for landscape irrigation purposes unless the City determines that there is a higher and better use for the recycled water, the use of recycled water is not economically justified for the project, or the use of recycled water is not financially or technically feasible for the project. The project applicant shall contact the New Business Office of the East Bay Municipal Utility District (EBMUD) for a recycled water feasibility assessment by the Office of Water Recycling. If recycled water is to be provided in the project, the project drawings submitted for construction-related permits shall include the proposed recycled water system and the project applicant shall install the recycled water system during construction.	Prior to approval of construction-related permit	Bureau of Planning; Bureau of Building	Bureau of Building
<b>SCA-UTIL-4: Construction and Demolition Waste Reduction and Recycling (#74).</b> The project applicant shall comply with the City of Oakland Construction and Demolition Waste Reduction and Recycling Ordinance (chapter 15.34 of the Oakland Municipal Code) by submitting a Construction and Demolition Waste Reduction and Recycling Plan (WRRP) for City review and approval, and shall implement the approved WRRP. Projects subject to these requirements include all new construction, renovations/alterations/modifications with construction values of \$50,000 or more (except R-3 type construction), and all demolition (including soft demolition) except demolition of type R-3 construction. The WRRP must specify the methods by which the project will divert construction and demolition debris waste from landfill disposal in accordance with current City requirements. The WRRP may be submitted electronically at <a href="http://www.greenhalosystems.com">www.greenhalosystems.com</a> or manually at the City's Green Building Resource Center. Current standards, FAQs, and forms are available on the City's website and in the Green Building Resource Center.	Prior to approval of construction-related permit	Public Works Department, Environmental Services Division	Public Works Department, Environmental Services Division
<b>SCA-UTIL-5: Recycling Collection and Storage Space (#76).</b> The project applicant shall comply with the City of Oakland Recycling Space Allocation Ordinance (chapter 17.118 of the Oakland Planning Code). The project drawings submitted for construction-related permits shall contain recycling collection and storage areas in compliance with the Ordinance. For residential projects, at least two cubic feet of storage and collection space per residential unit is required, with a minimum of ten cubic feet. For nonresidential projects, at least two cubic feet of storage and collection space per 1,000 square feet of building floor area is required, with a minimum of ten cubic feet.	Prior to approval of construction-related permit	Bureau of Planning	Bureau of Building
<b>SCA-UTIL-6: Underground Utilities (#75).</b> The project applicant shall place underground all new utilities serving the project and under the control of the project applicant and the City, including all new gas, electric, cable, and telephone facilities, fire alarm conduits, street light wiring, and other wiring, conduits, and similar facilities. The new facilities shall be placed underground along the project's street frontage and from the project structures to the point of service. Utilities under the control of other agencies, such as PG&E, shall be placed underground if feasible. All utilities shall be installed in accordance with standard specifications of the serving utilities.	During construction	N/A	Bureau of Building
<b>SCA-UTIL-7: Green Building Requirements (#77).</b> a. <i>Compliance with Green Building Requirements During Plan-Check</i> The project applicant shall comply with the requirements of the California Green Building Standards (CALGreen) mandatory measures and the applicable requirements of the City of Oakland Green Building Ordinance (chapter 18.02 of the Oakland Municipal Code). i. The following information shall be submitted to the City for review and approval with the	a. Prior to approval of construction-related permit  b. During construction	a. Bureau of Building  b. N/A  c. Bureau of Planning	a. N/A  b. Bureau of Building  c. Bureau of Building

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Standard Conditions of Approval/ Mitigation Measures	Standard Conditions of Approval and Mitigation Measures Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
<p>application for a building permit:</p> <ul style="list-style-type: none"> <li>• Documentation showing compliance with Title 24 of the current version of the California Building Energy Efficiency Standards.</li> <li>• Completed copy of the final green building checklist approved during the review of the Planning and Zoning permit.</li> <li>• Copy of the Unreasonable Hardship Exemption, if granted, during the review of the Planning and Zoning permit.</li> <li>• Permit plans that show, in general notes, detailed design drawings, and specifications as necessary, compliance with the items listed in subsection (ii) below.</li> <li>• 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.</li> <li>• 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.</li> <li>• Other documentation as deemed necessary by the City to demonstrate compliance with the Green Building Ordinance. <ul style="list-style-type: none"> <li>ii. The set of plans in subsection (i) shall demonstrate compliance with the following: <ul style="list-style-type: none"> <li>• CALGreen mandatory measures.</li> <li>• All pre-requisites per the green building 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.</li> <li>• Minimum of 23 points per the appropriate checklist approved during the Planning entitlement process.</li> <li>• 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 Bureau of Planning that shows the previously approved points that will be eliminated or substituted.</li> <li>• The required green building point minimums in the appropriate credit categories.</li> </ul> </li> </ul> </li> </ul> <p>b. <i>Compliance with Green Building Requirements During Construction.</i> The project applicant shall comply with the applicable requirements of CALGreen and the Oakland Green Building Ordinance during construction of the project.</p> <p>The following information shall be submitted to the City for review and approval:</p> <ol style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>Other documentation as deemed necessary by the City to demonstrate compliance with the Green Building Ordinance.</li> </ol> <p>c. <i>Compliance with Green Building Requirements After Construction.</i> Within sixty (60) days of the final inspection of the building permit for the project, the Green Building Certifier shall submit the appropriate e documentation to Build It Green and attain the minimum required certification/point level. Within one year of the final inspection of the building permit for the project, the applicant shall submit to the Bureau of Planning the Certificate from the organization listed above demonstrating certification and compliance with the minimum point/certification level noted above.</p>	<p>c. After project completion as specified</p>		

STANDARD CONDITION OF APPROVALS AND MITIGATION MEASURES MONITORING AND REPORTING PROGRAM			
Standard Conditions of Approval/ Mitigation Measures	Standard Conditions of Approval and Mitigation Measures Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
SCA-HYD-1: Erosion and Sedimentation Control Plan for Construction (#45) See SCA-HYD-1 above.	See SCA-HYD-1 above.	See SCA-HYD-1 above.	See SCA-HYD-1 above.
SCA-HYD-2 :NPDES C.3 Stormwater Requirements for Regulated Projects (#50) See SCA-HYD-2 above.	See SCA-HYD-2 above.	See SCA-HYD-2 above.	See SCA-HYD-2 above.

## **ATTACHMENT B: CRITERIA FOR USE OF ADDENDUM, PER CEQA GUIDELINES SECTIONS 15162, 15164, AND 15168**

Section 15164(a) of the California Environmental Quality Act (CEQA) Guidelines states that “a lead agency or responsible agency shall prepare an addendum to a previously certified EIR [Environmental Impact Report] if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred.” Section 15164(e) states that “a brief explanation of the decision not to prepare a subsequent EIR pursuant to Section 15162 should be included in an addendum to an EIR.”

As discussed in detail in Chapter III of this document, the analysis in the Uptown EIRs are considered for this assessment under Sections 15162 and 15164. The 1998 LUTE EIR, 2011 Renewal Plan EIR, and 2010 Housing Element Update EIR are Program EIRs considered for this assessment of an Addendum, pursuant to Section 15162 and 15164. The 2011 Renewal Plan EIR analysis is a Program EIR specifically considered for this assessment, pursuant to CEQA Guidelines Section 15168 and Section 15180.

### **Proposed Project**

As discussed under Project Characteristics above, the Proposed Project would introduce residential uses on the site previously considered by the Uptown EIRs and subsequent addenda for commercial only. The Proposed Project would result in an 18-story building with a mezzanine compared to the single-story previously considered. However, the increase in residential units on Block 8 would not exceed the total residential use analyzed in the most recent 2012 Supplemental EIR and is within the overall development envelope analyzed in the Uptown EIRs.

### **Conditions for Addendum**

None of the following conditions for preparation of a subsequent EIR per Sections 15162(a) and 15168 apply to the Proposed Project:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:
- (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
  - (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;
  - (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

#### **Project Consistency with Sections 15162 and 15168 of the CEQA Guidelines**

Since certification of the Uptown EIRs, no changes have occurred in the circumstances under which the Proposed Project would be implemented, that would change the severity of the Proposed Project's physical impacts, as explained in the CEQA Checklist in Chapter VI of this document. No new information has emerged that would materially change the analyses or conclusions set forth in the Uptown EIRs.

Furthermore, as demonstrated in the CEQA Checklist, the Proposed Project would not result in any new significant environmental impacts, result in any substantial increases in the significance of previously identified effects, or necessitate implementation of additional or considerably different mitigation measures than those identified in the Uptown EIRs, nor render any mitigation measures or alternatives found not to be feasible, feasible. The effects of the Proposed Project would be substantially the same as those reported in the Uptown EIRs.

The analysis presented in this CEQA Checklist, combined with the prior the Uptown EIRs' analysis, demonstrates that the Proposed Project would not result in significant impacts that were not previously identified in the EIR. The Proposed Project would not result in a substantial increase in the significance of impacts, nor would it contribute considerably to cumulative effects that were not already accounted for in the certified Uptown EIRs and the Program EIRs. Overall, and except for the elimination of the significant and unavoidable impact related to off-site parking deficiency, the Proposed Project's impacts are similar to those identified and discussed in the Uptown EIRs and Program EIRs, as described in the CEQA Checklist, and the findings reached in the Uptown EIRs and Program EIRs are applicable



## **ATTACHMENT C: PROJECT CONSISTENCY WITH COMMUNITY PLAN OR ZONING, PER CEQA GUIDELINES SECTION 15183**

Section 15183 (a) of the California Environmental Quality Act (CEQA) Guidelines states that "...projects which are consistent with the development density established by the existing zoning, community plan, or general plan policies for which an Environmental Impact Report (EIR) was certified shall not require additional environmental review, except as may be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site."

### **Proposed Project**

The Proposed Project is on 2 parcels located at 2016 Telegraph Avenue and 490 Thomas L. Berkley Way (20<sup>th</sup> Street) within the Central Business District (CBD) of the City of Oakland General Plan area. It would replace the existing surface parking lot and kiosk and construct a new mixed-use development of approximately 203,091 square feet. The Proposed Project would include an 18-story (200-foot) building with mezzanine, 230 residential units, 78 parking spaces, and 4,622 square feet of retail space.

### **Project Consistency**

The City of Oakland completed an update of the General Plan Land Use and Transportation Element (LUTE) in March 1998. The LUTE includes the City's current Land Use and Transportation Diagram as well as strategies, policies, and priorities for Oakland's development and enhancement during a two decade period. The EIR certified for the LUTE is used to simplify the task of preparing environmental documents on later projects that occur as a result of LUTE implementation.

### **Criterion Section 15183(a): General Plan and Zoning Consistency**

Section 15183(a) of the CEQA Guidelines states that "...projects which are consistent with the development density established by the existing zoning, community plan, or general plan policies for which an EIR was certified shall not require additional environmental review, except as may be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site."

As discussed in detail in Chapter III of this document, the analysis in the 1998 LUTE EIR and the 2010 Housing Element Update EIR, are considered the qualified planning level CEQA documents for this assessment, pursuant to CEQA Guidelines Section 15183.

### *1998 General Plan Land Use and Transportation Element and EIR*

As determined by the City of Oakland Bureau of Planning, the proposed land uses are permitted in the zoning district in which the Proposed Project is located making the

Proposed Project consistent with the bulk, density, and land uses envisioned for the Proposed Project site, as outlined below.

- The General Plan land use designation for the site is CBD. This 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. The Proposed Project would provide for a variety of commercial and residential uses on the Proposed Project site that would be pedestrian-oriented and be neighborhood-serving.
- The site is zoned Central Business District Central Pedestrian Zone (CBD-P). The Proposed Project would be consistent with the purposes of this district, which is generally intended to create, maintain, and enhance areas of the CBD appropriate for a range of ground-floor commercial activities. Upper-story spaces are intended to be available for residential uses. The Proposed Project would develop ground- floor commercial retail/restaurant space.
- The proposed building would be up to approximately 200 feet in height and is within Height Limit 6 where no height limitations exist.

#### *City of Oakland's 2015-2023 Housing Element*

The City of Oakland's 2015-2023 Housing Element indicates that there are as many as 10,400 new housing units that are allowable within the downtown under current zoning designations, with a likely number of 4,310 housing units to be developed within the Downtown without rezoning or further General Plan Amendments, through opportunity sites and with projects either built, under construction, approved or in predevelopment. The Proposed Project site meets the Housing Element's criteria of sites suitable for new housing development, including:

- It is an underutilized site with outmoded facilities and/or marginal existing use;
- It is within Downtown, which accounts for the largest number of potential housing units, as the densities of permitted development are higher than most other areas; and
- It is located along one of the City's major commercial corridors, and utilizes ground floor commercial space with housing above, as encouraged by zoning and development guidelines to maximize residents' access to services including retail opportunities, transportation alternatives and civic activities, while reducing the need for automobiles, thus increasing the sustainability of such development.

#### **Conclusion**

Cumulative environmental effects identified in the 1998 LUTE's EIR as significant unavoidable and significant, but which can be reduced to a less-than-significant level through mitigation, are limited to the following topics: aesthetics/winds, cultural

resources, hazards/hazardous materials, land use/planning, population/housing, and public services. In accordance State CEQA Guidelines 15183, the Proposed Project qualifies for a Community Plan Exemption because the following findings can be made:

- As demonstrated under Criterion Section 15183(a): General Plan and Zoning Consistency (above), the Proposed Project is consistent with the development density established by existing zoning and General Plan policies for the site, and there are no peculiar aspects, other than those evaluated herein, that would increase the severity of any of the previously identified significant cumulative effects in the 1998 LUTE EIR.
- Since the Proposed Project is consistent with the development assumptions for the site as provided under the 1998 LUTE EIR, and within the overall range of development within the Downtown as assumed in the Housing Element EIR, the Proposed Project's potential contribution to cumulatively significant effects has already been addressed in these prior EIRs. Therefore, consistent with CEQA Guidelines Section 15183 which allows for streamlined environmental review, this document needs only to consider whether there are project-specific effects peculiar to the Proposed Project or its site, and relies on the streamlining provisions of CEQA Guidelines Section 15183 to not re-consider cumulative effects.

Therefore, the Proposed Project is eligible for consideration of an exemption under California Public Resources Code Section 21083.3 and Section 15183 of the CEQA Guidelines.



## ATTACHMENT D: INFILL PERFORMANCE STANDARDS, PER CEQA GUIDELINES SECTION 15183.3

The following information demonstrates that the Proposed Project is eligible for permit streamlining pursuant to CEQA Guidelines Section 15183.3 as a qualified infill project.

### Eligibility

The following analysis demonstrates that the Proposed Project is located in an urban area on a site that has been previously developed; satisfies the performance standards provided in CEQA Guidelines Appendix M; and is consistent with the General Plan land use designation, density, building intensity and applicable policies. As such, this environmental review is limited to an assessment of whether the Proposed Project may cause any project-specific effects, and relies on uniformly applicable development policies or standards to substantially mitigate cumulative effects.

<b>PROJECT INFILL ELIGIBILITY</b>	
<b>CEQA Eligibility Criteria</b>	<b>Eligible?/Notes for Proposed Project</b>
1. Be located in an urban area on a site that either has been previously developed or that adjoins existing qualified urban uses on at least 75 percent of the site's perimeter. For the purpose of this subdivision, "adjoin" means the infill project is immediately adjacent to qualified urban uses, or is only separated from such uses by an improved right-of-way. (CEQA Guidelines Section 15183.3[b][1])	Yes. The Proposed Project site has been previously developed as a surface parking lot and adjoins existing urban uses, as described in the Project Description, above.
2. Satisfy the performance Standards provided in Appendix M (CEQA Guidelines Section 15183.3[b][2]) as presented in 2a and 2b below:	—
<i>2a. Performance Standards Related to Project Design.</i> All projects must implement <b>all</b> of the following:	—
<b>Renewable Energy.</b> <i>Non-Residential Projects.</i> All nonresidential projects shall include on-site renewable power generation, such as solar photovoltaic, solar thermal, and wind power generation, or clean back-up power supplies, where feasible. <i>Residential Projects.</i> Residential projects are also encouraged to include such on-site renewable power generation.	Not Applicable. According to Section IV (G) of CEQA Appendix M, for mixed-use projects "...the performance standards in this section that apply to the predominant use shall govern the entire project." Because the predominant use is residential, the Proposed Project is not required to include on-site renewable power generation.

<b>PROJECT INFILL ELIGIBILITY</b>	
<b>CEQA Eligibility Criteria</b>	<b>Eligible?/Notes for Proposed Project</b>
<p><b>Soil and Water Remediation.</b> If the project site is included on any list compiled pursuant to Section 65962.5 of the Government Code, the project shall document how it has remediated the site, if remediation is completed. Alternatively, the project shall implement the recommendations provided in a preliminary endangerment assessment or comparable document that identifies remediation appropriate for the site.</p>	<p>Not Applicable. The Proposed Project site is not located on any list compiled pursuant to Section 65962.5 of the Government Code (the “Cortese List”). See the discussion under Criterion 15300.2(e) included in the CEQA Analysis for a more detailed discussion of Cortese List status and site remediation efforts.</p>
<p><b>Residential Units Near High-Volume Roadways and Stationary Sources.</b> If a project includes residential units located within 500 feet, or other distance determined to be appropriate by the local agency or air district based on local conditions, of a high volume roadway or other significant sources of air pollution, the project shall comply with any policies and standards identified in the local general plan, specific plan, zoning code, or community risk reduction plan for the protection of public health from such sources of air pollution.  If the local government has not adopted such plans or policies, the project shall include measures, such as enhanced air filtration and project design, that the lead agency finds, based on substantial evidence, will promote the protection of public health from sources of air pollution. Those measures may include, among others, the recommendations of the California Air Resources Board, air districts, and the California Air Pollution Control Officers Association.</p>	<p>Yes. For projects that include residential units, the BAAQMD recommends evaluating the cumulative health risks to the residents from mobile and stationary sources of TAC emissions within 1,000 feet of the Proposed Project.</p>
<p>2b. <i>Additional Performance Standards by Project Type.</i> In addition to implementing all the features described in criterion 2a above, the project must meet eligibility requirements provided below by project type.<sup>a</sup></p>	<p>—</p>
<p><b>Residential.</b> A residential project must meet <b>one</b> of the following: A. <i>Projects achieving below average regional per capita vehicle miles traveled.</i> A residential project is eligible if it is located in a “low vehicle travel area” within the region; B. <i>Projects located within ½-mile of an</i></p>	<p>Yes, satisfies B. The Proposed Project site is well-served by multiple transit providers, including Alameda-Contra Costa County Transit District (AC Transit) bus routes 1, 1R, 11, 12, 18, 51A, 58L, 72, 72M, 651, 800, 802, 805, 851, NL, and Broadway Shuttle, which are all within 500 feet of the Proposed Project site. The Proposed Project site is</p>

<b>PROJECT INFILL ELIGIBILITY</b>	
<b>CEQA Eligibility Criteria</b>	<b>Eligible?/Notes for Proposed Project</b>
<p><i>Existing Major Transit Stop or High Quality Transit Corridor.</i> A residential project is eligible if it is located within ½-mile of an existing major transit stop or an existing stop along a high quality transit corridor; <b>or</b></p> <p><i>C. Low – Income Housing.</i> A residential or mixed-use project consisting of 300 or fewer residential units all of which are affordable to low income households is eligible if the developer of the development project provides sufficient legal commitments to the lead agency to ensure the continued availability and use of the housing units for lower income households, as defined in Section 50079.5 of the Health and Safety Code, for a period of at least 30 years, at monthly housing costs, as determined pursuant to Section 50053 of the Health and Safety Code.</p>	<p>also within ½ mile of the 19<sup>th</sup> Street BART station. Broadway qualifies as a “High Quality Transit Corridor,” as defined by Section II of CEQA, with fixed route bus service at intervals no longer than 15 minutes during peak commute hours. The AC Transit Line 51A runs along Broadway in the Proposed Project vicinity, and has service intervals no longer than 15 minutes during peak commute hours. Other bus routes in the Proposed Project vicinity further satisfy this criterion.</p>
<p><b>Commercial/Retail.</b> A commercial/retail project must meet <b>one</b> of the following:</p> <p><i>A. Regional Location.</i> A commercial project with no single-building floor-plate greater than 50,000 square feet is eligible if it locates in a “low vehicle travel area;” <b>or</b></p> <p><i>B. Proximity to Households.</i> A project with no single-building floor-plate greater than 50,000 square feet located within ½-mile of 1,800 households is eligible.</p>	<p>Not Applicable.</p> <p>According to Section IV (G) of CEQA Appendix M, for mixed-use projects “...the performance standards in this Section that apply to the predominant use shall govern the entire project.” Because the predominant use is residential, the requirements for commercial/retail projects do not apply.</p>
<p><b>Office Building.</b> An office building project must meeting <b>one</b> of the following:</p> <p><i>A. Regional Location.</i> Office buildings, both commercial and public, are eligible if they locate in a low vehicle travel area; <b>or</b></p> <p><i>B. Proximity to a Major Transit Stop.</i> Office buildings, both commercial and public, within ½-mile of an existing major transit stop, or ¼-mile of an existing stop along a high quality transit corridor, are eligible.</p>	<p>Not Applicable.</p>
<p><b>Schools.</b></p> <p>Elementary schools within 1 mile of 50 percent of the projected student population are eligible. Middle schools and high schools within 2 miles of 50 percent of the projected student population are eligible. Alternatively, any school within ½-mile of an existing major transit stop or an existing stop along a high quality transit corridor is eligible.</p> <p>Additionally, to be eligible, all schools shall</p>	<p>Not Applicable.</p>

<b>PROJECT INFILL ELIGIBILITY</b>	
<b>CEQA Eligibility Criteria</b>	<b>Eligible?/Notes for Proposed Project</b>
provide parking and storage for bicycles and scooters, and shall comply with the requirements of Sections 17213, 17213.1, and 17213.2 of the California Education Code.	
<b>Transit.</b> Transit stations, as defined in Section 15183.3(e)(1), are eligible.	Not Applicable.
<b>Small Walkable Community Projects.</b> Small walkable community projects, as defined in Section 15183.3, subdivision (e)(6), that implement the project features in 2a above are eligible.	Not Applicable.
3. Be consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in either a sustainable communities strategy or an alternative planning strategy, <b>except</b> as provided in CEQA Guidelines Sections 15183.3(b)(3)(A) or (b)(3)(B) below: (b)(3)(A). Only where an infill project is proposed within the boundaries of a metropolitan planning organization for which a sustainable communities strategy or an alternative planning strategy will be, but is not yet in effect, a residential infill project must have a density of at least 20 units per acre, and a retail or commercial infill project must have a floor area ratio of at least 0.75; <b>or</b> (b)(3)(B). Where an infill project is proposed outside of the boundaries of a metropolitan planning organization, the infill project must meet the definition of a “small walkable community project” in CEQA Guidelines Section 15183.3(f)(5).  (CEQA Guidelines Section 15183.3[b][3])	Yes. <b>(See explanation below table)</b>



### **Explanation for Eligibility Criterion 3**

The adopted Plan Bay Area (2013)<sup>1</sup> serves as the sustainable communities strategy for the Bay Area, per Senate Bill 375, under California Public Resource Codes Sections 21155, 21155.1, 21155.2, and 21159.28. As defined by the Plan, Priority Development Areas (PDAs) are areas where new development will support the needs of residents and workers in a pedestrian-friendly environment served by transit. The Proposed Project is consistent with the general land use designation, density, building intensity, and applicable policies specified in the General Plan as described in further detail the CEQA Analysis under Criterion 15183.3(a) and summarized below.

The General Plan land use designation for the Proposed Project site is CBD; this 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. The Proposed mixed-use Project would be consistent with this designation.

Consistent with CEQA Guidelines Section 15183.3(b) which allows streamlining for qualified infill projects, this environmental document is limited to topics applicable to project-level review only. Cumulative level effects of infill development have been addressed in other planning level decisions of the LUTE and 1998 LUTE EIR, the General Plan 2007-2014 Housing Element and EIR (2010) and the 2015-2023 Housing Element and Addendum (2014), or by uniformly applicable development policies (SCAs) which mitigate such impacts.

Based on the streamlining provisions of CEQA Guidelines Sections 15183 and 15183.3, the Proposed Project's cumulative effect would be less than significant, and an exception under CEQA Guidelines Section 15300.2(c) regarding cumulative effects does not apply to the Proposed Project.

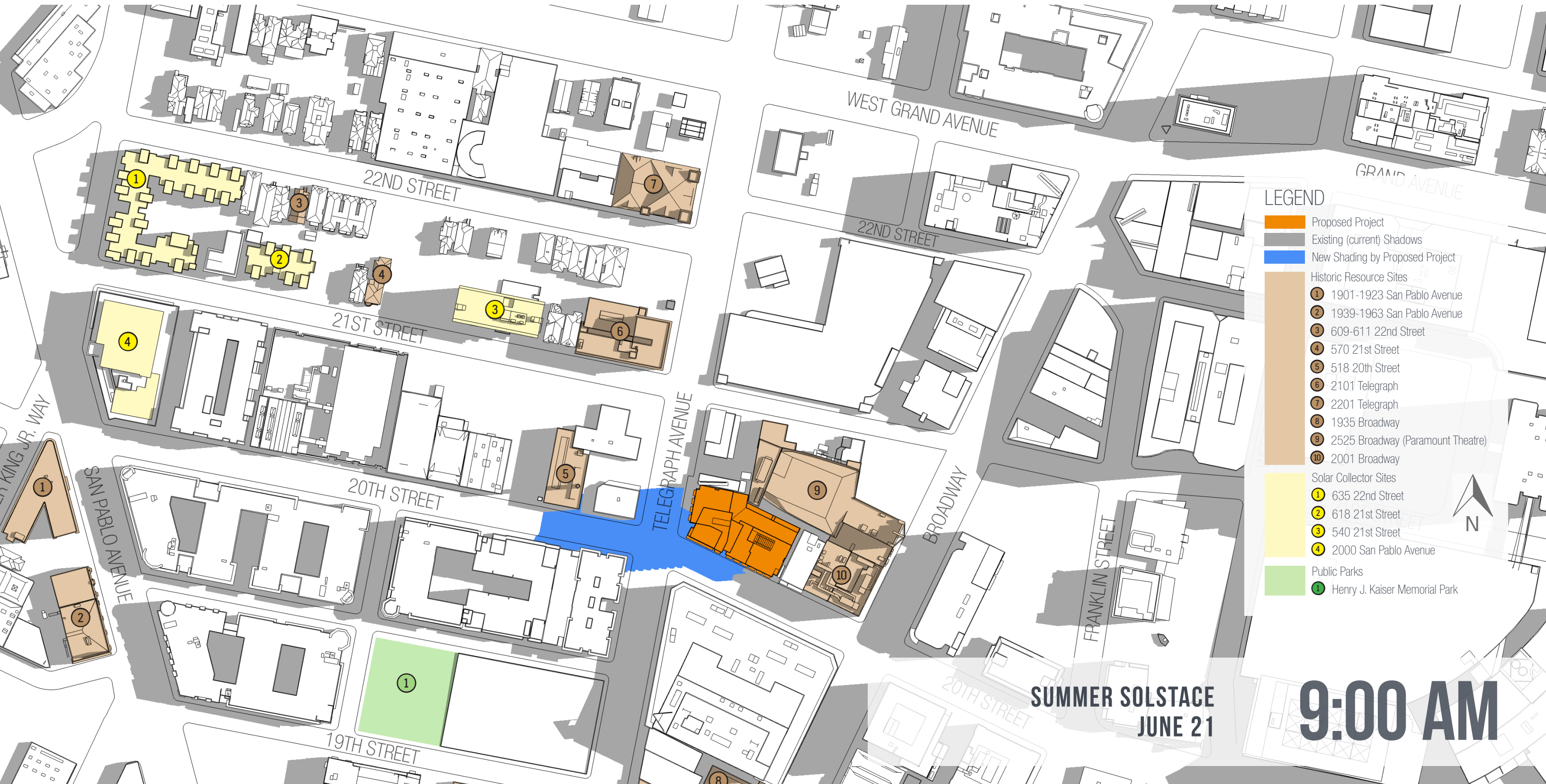
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<sup>1</sup> Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG), 2013. Plan Bay Area, Strategy for a Sustainable Region. Adopted July 18, 2013.



## ATTACHMENT E. SHADOW STUDY



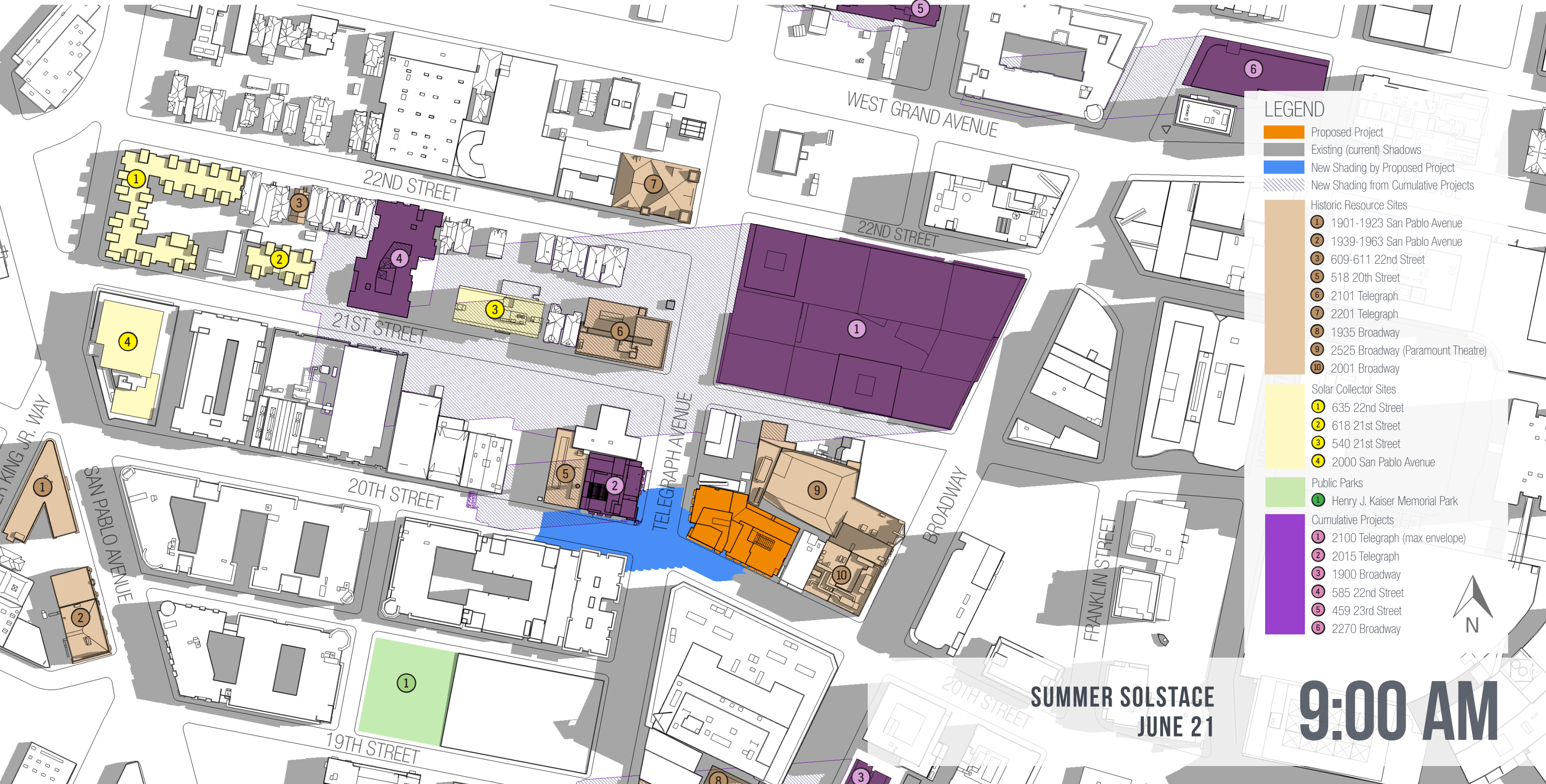


**LEGEND**

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  - ① Henry J. Kaiser Memorial Park

**SUMMER SOLSTICE  
JUNE 21**

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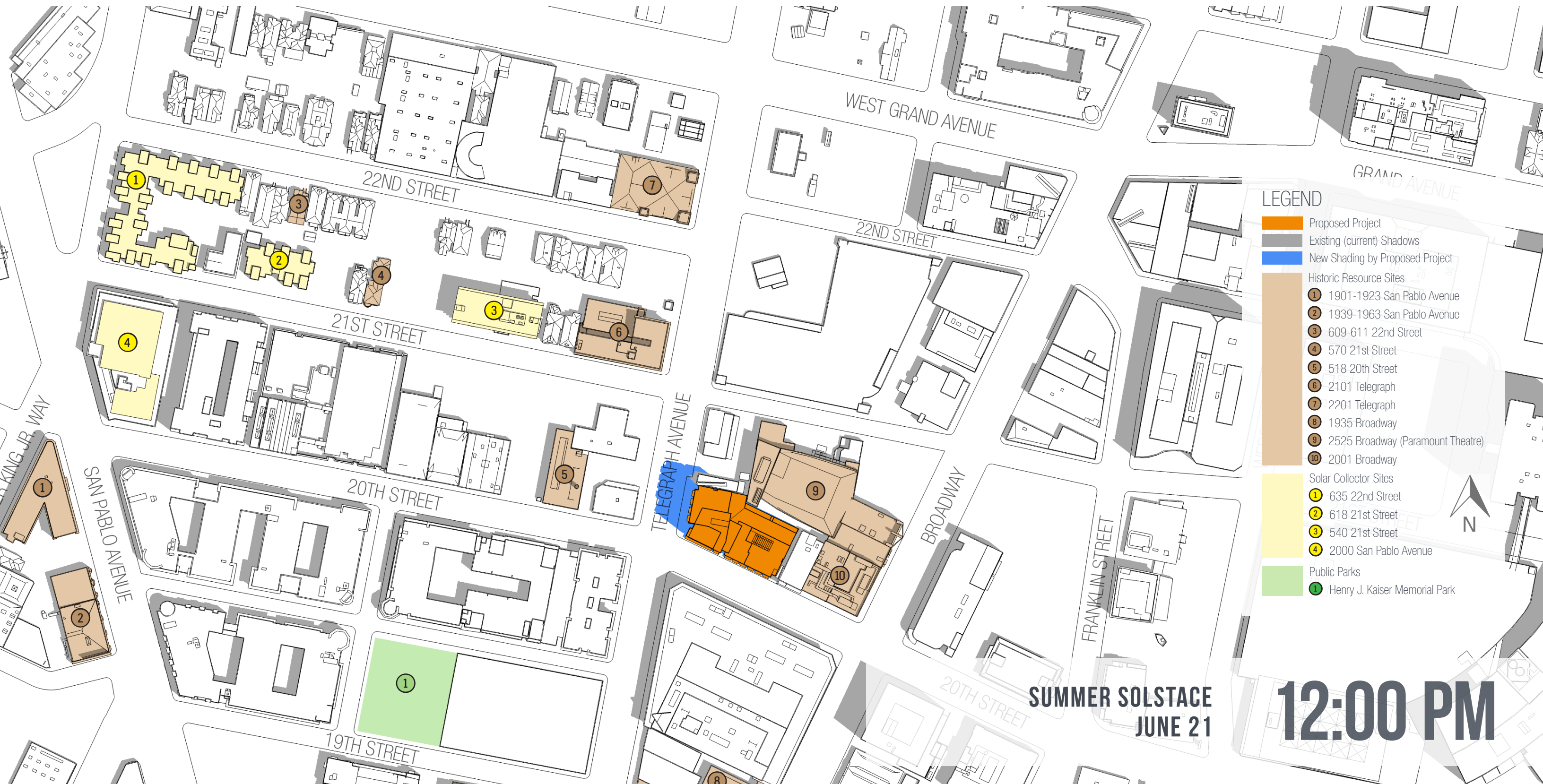


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**SUMMER SOLSTICE  
JUNE 21**

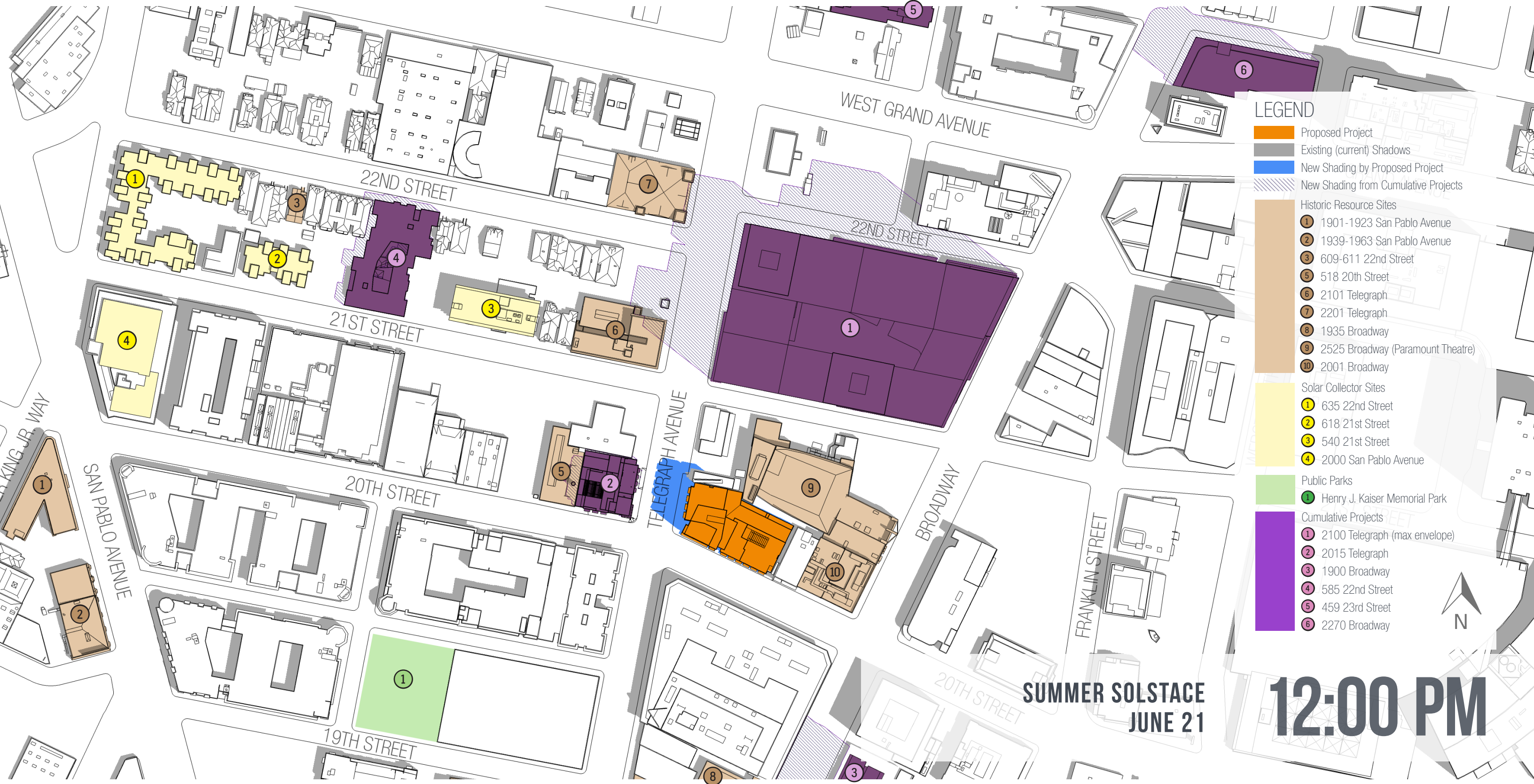
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**SUMMER SOLSTICE  
JUNE 21  
12:00 PM**



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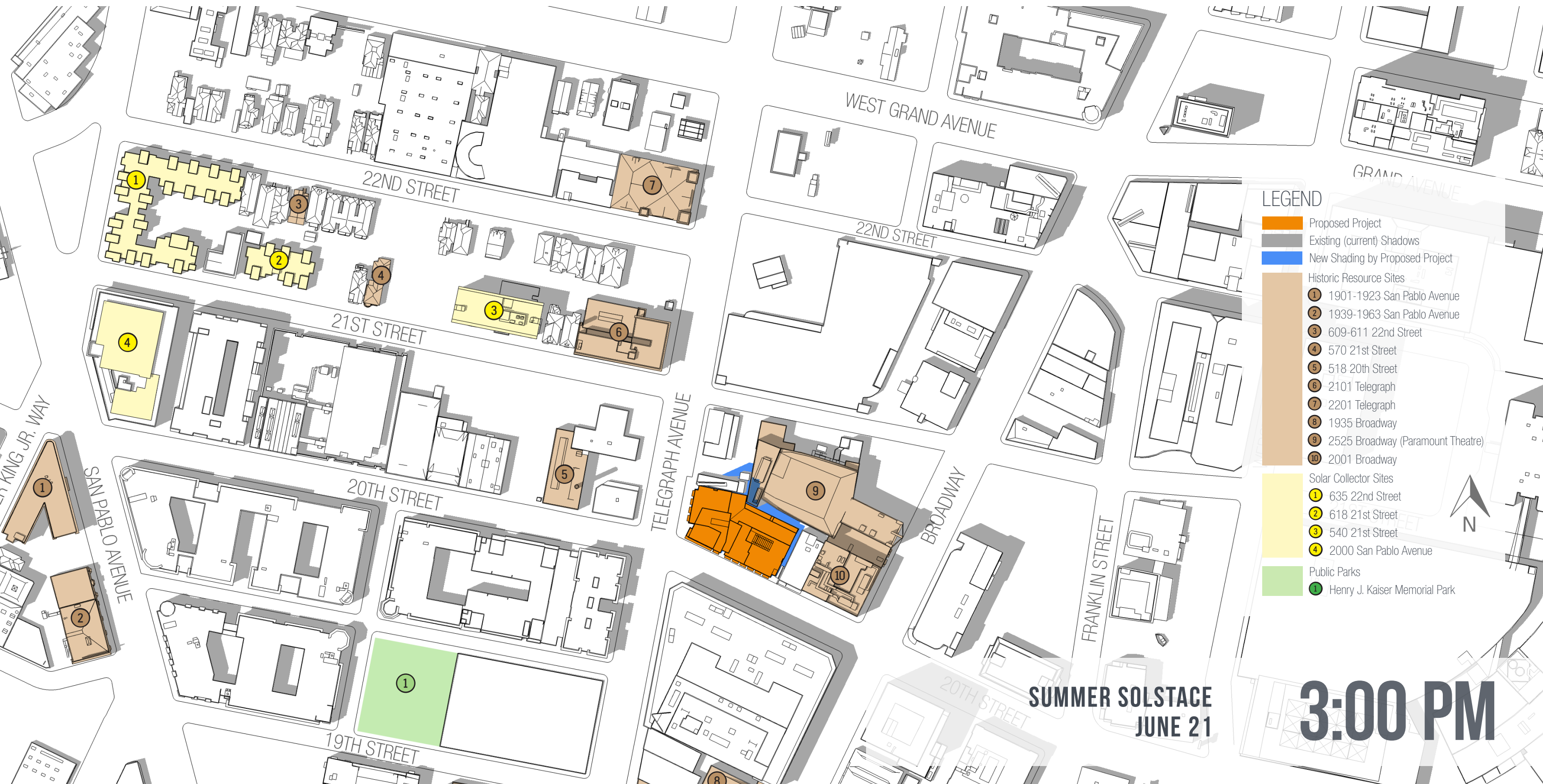
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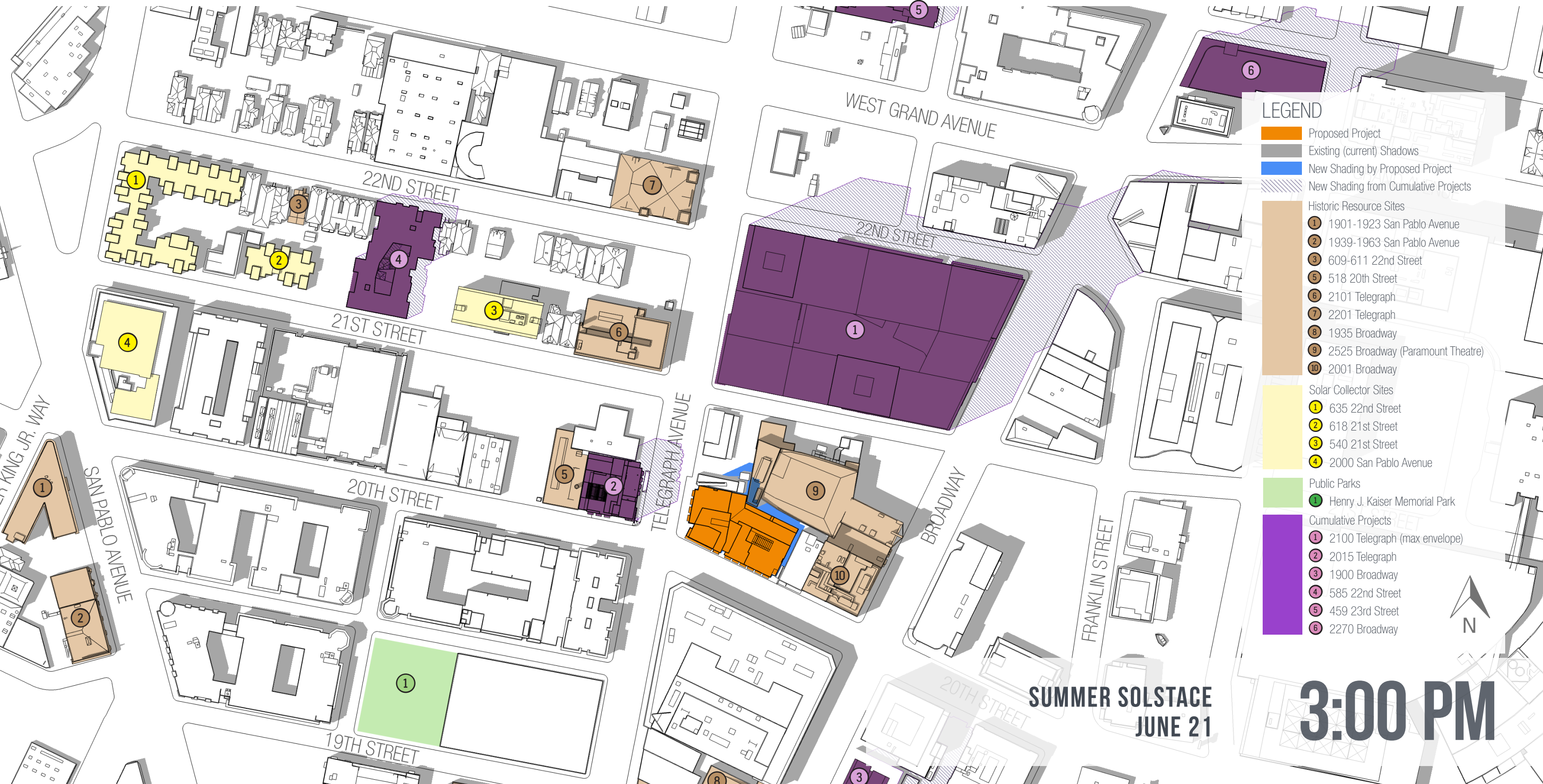




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SUMMER SOLSTICE  
JUNE 21

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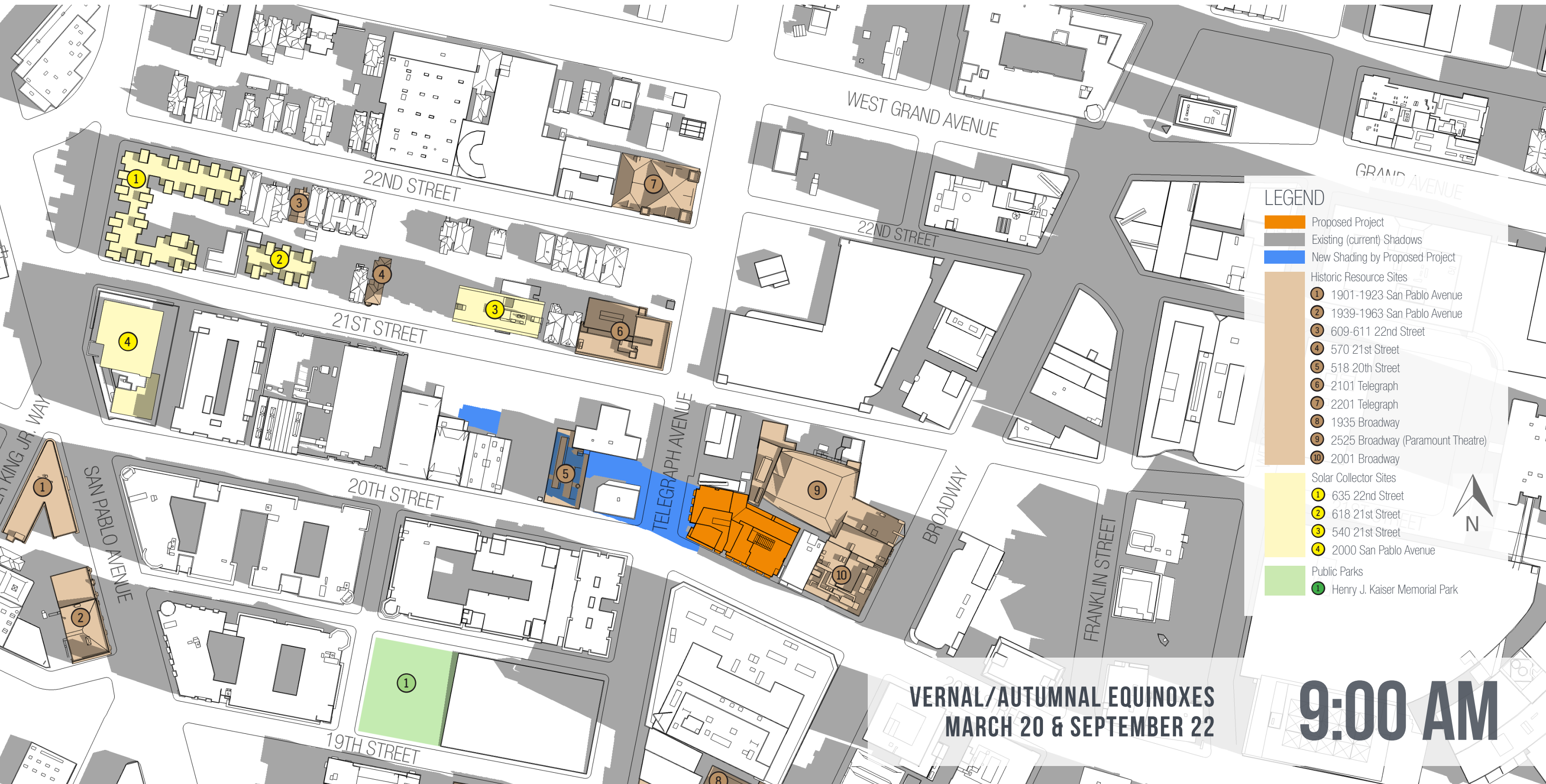
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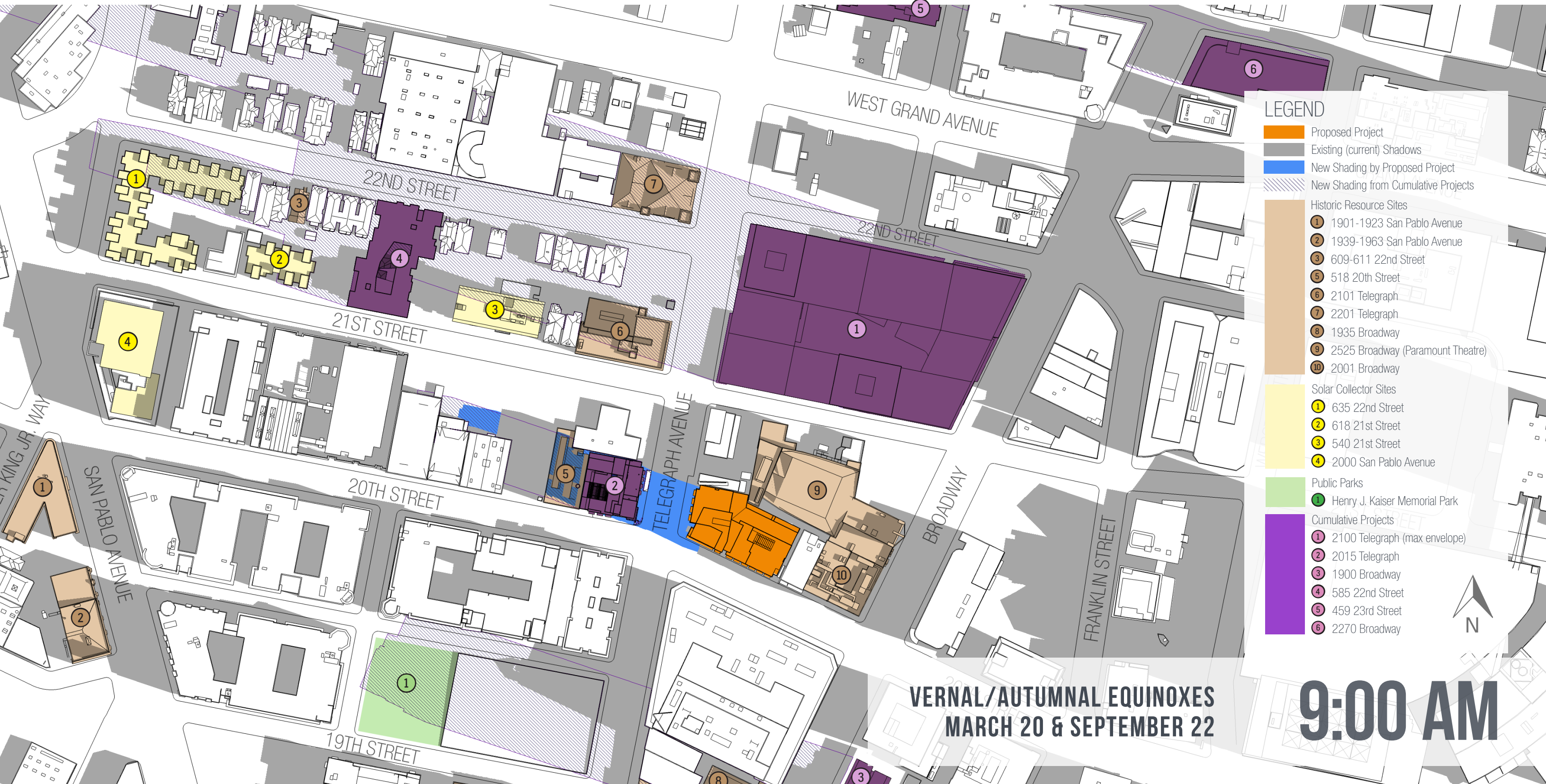
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**VERNAL/AUTUMNAL EQUINOXES  
MARCH 20 & SEPTEMBER 22**

**9:00 AM**

Cumulative shading diagrams on the Vernal/Autumnal Equinoxes



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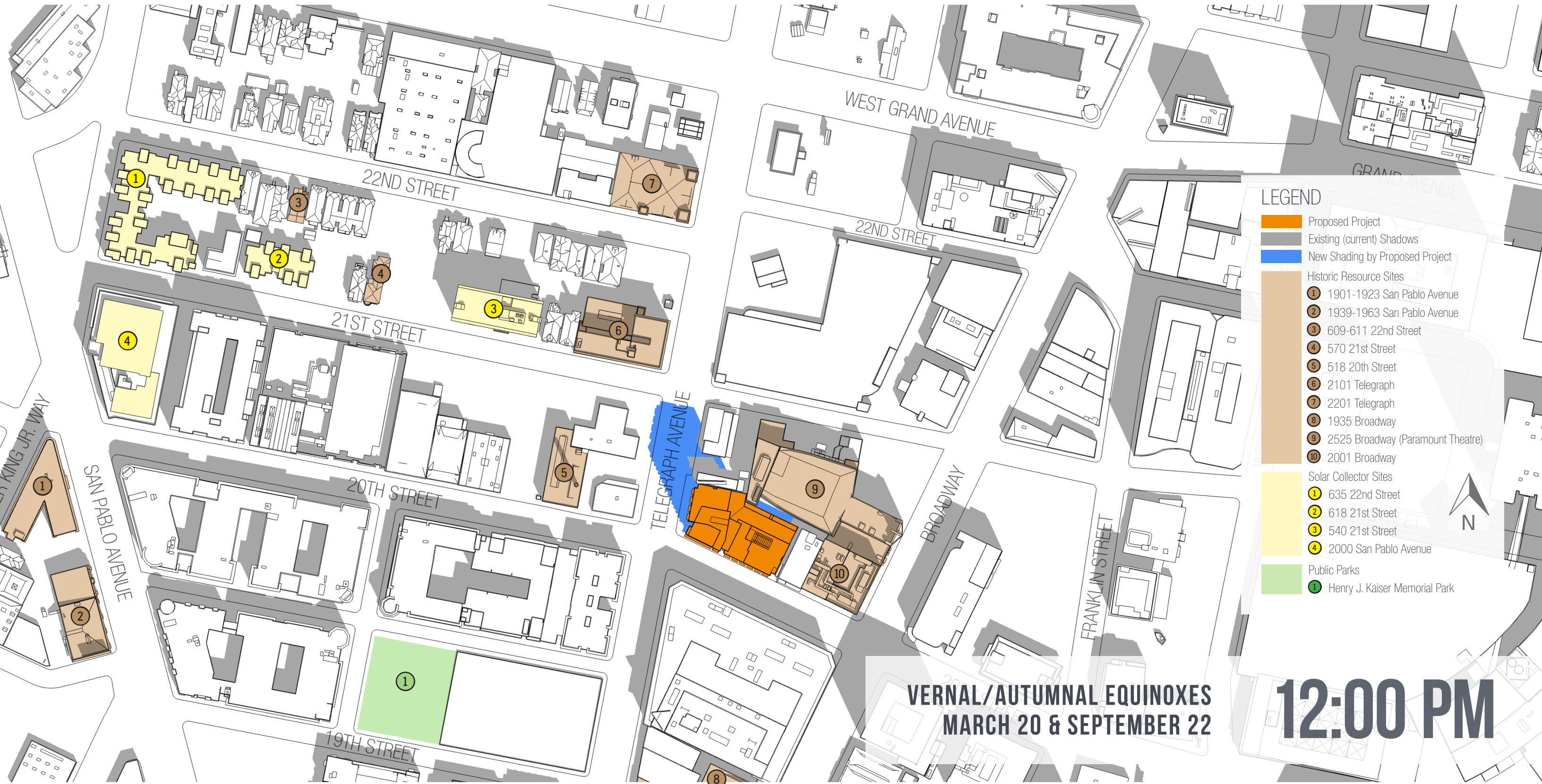
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**VERNAL/AUTUMNAL EQUINOXES  
MARCH 20 & SEPTEMBER 22**

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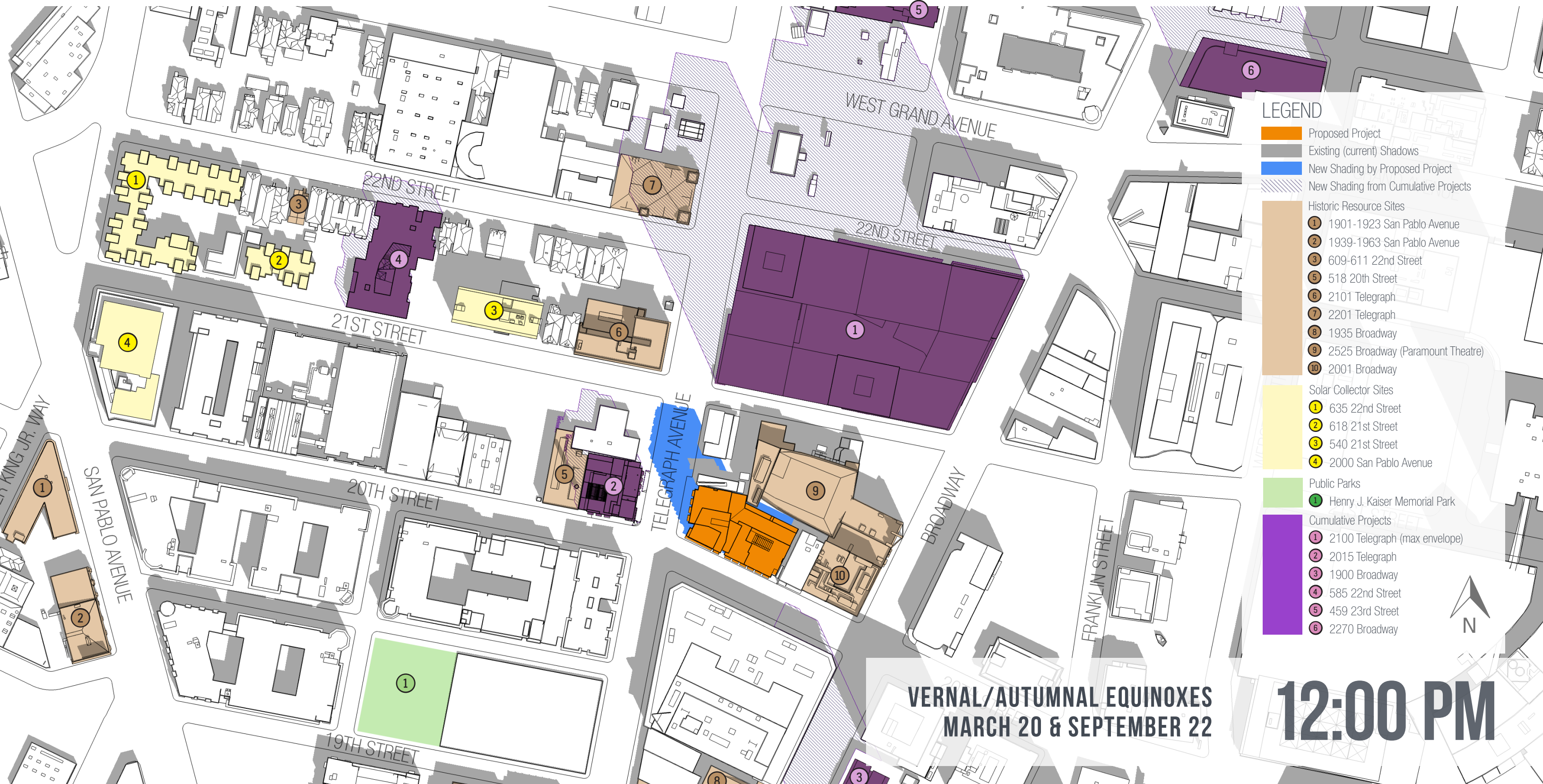


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MARCH 20 & SEPTEMBER 22

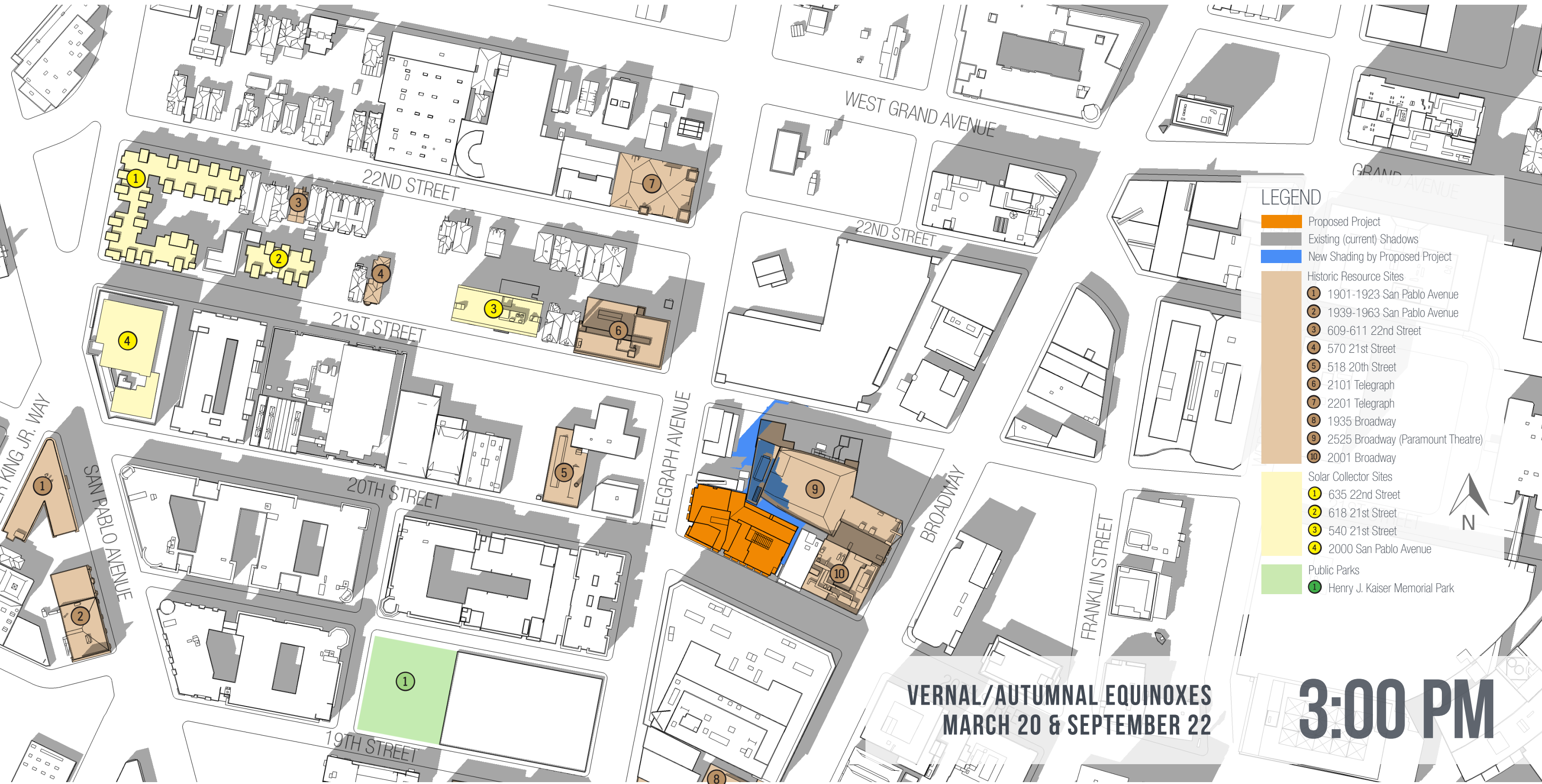
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MARCH 20 & SEPTEMBER 22

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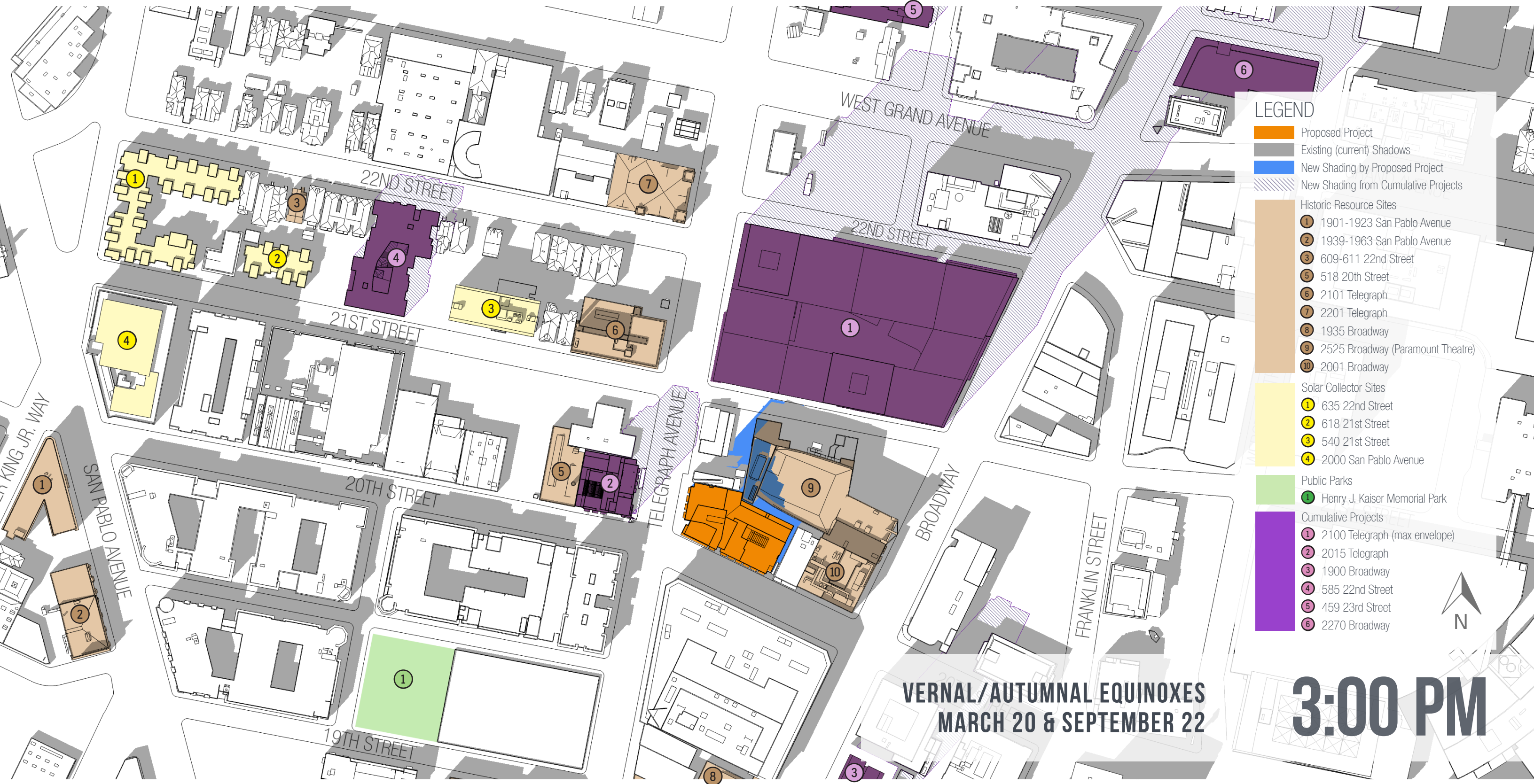
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**VERNAL/AUTUMNAL EQUINOXES  
MARCH 20 & SEPTEMBER 22**

**3:00 PM**

Cumulative shading diagrams on the Vernal/Autumnal Equinoxes



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WINTER SOLSTICE  
DECEMBER 21

9:00 AM



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DECEMBER 21

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DECEMBER 21

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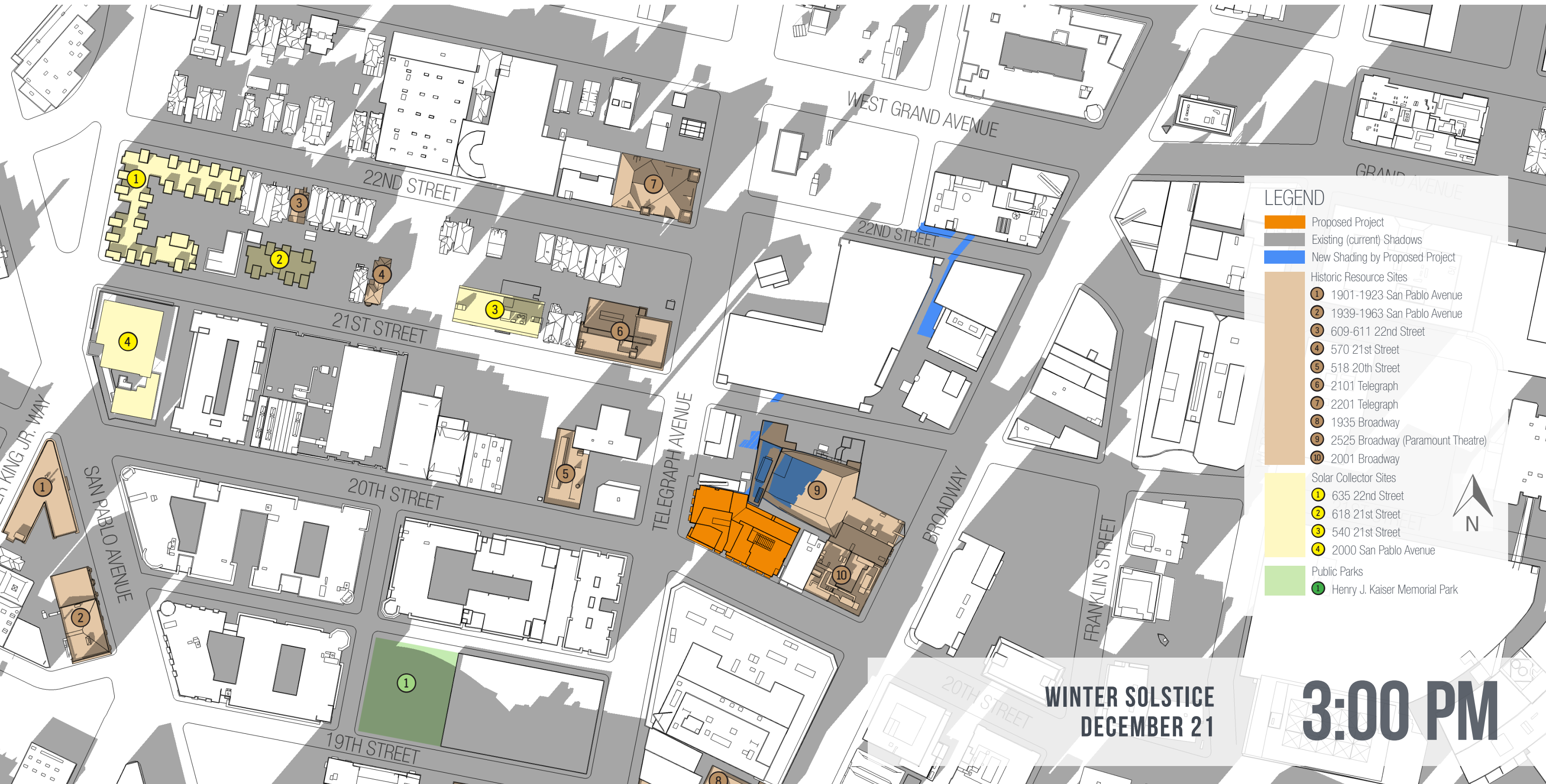


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WINTER SOLSTICE  
DECEMBER 21

3:00 PM



## Attachment F: Wind Tunnel Study







CONSULTING ENGINEERS  
& SCIENTISTS

Tel: 519.823.1311  
Fax: 519.823.1316

Rowan Williams Davies & Irwin Inc.  
600 Southgate Drive  
Guelph, Ontario, Canada  
N1G 4P6

2016 Telegraph Avenue  
Oakland, CA

# Final Report

## Pedestrian Wind Consultation

RWDI # 1603146  
February 17<sup>th</sup>, 2017

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## 1. INTRODUCTION

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Rowan Williams Davies & Irwin Inc. (RWDI) was retained by Urban Planning Partners, Inc. to consult on the pedestrian wind conditions for the proposed 2016 Telegraph Avenue in Oakland, CA. The purpose of the study was to assess the wind environment around the development in terms of pedestrian wind comfort and hazard relative to wind metrics specified in the City of Oakland Significant Wind Impact Criterion. It should be noted that this project was tested concurrently with its neighboring project at 2015 Telegraph. This objective was achieved through wind tunnel testing of a 1:300 scale model of the proposed development for the following configurations:

- |                              |  |
|------------------------------|--|
| A - Existing:                | existing and approved surroundings;  |
| B – Existing plus Project:   | proposed 2015 and 2016 Telegraph Avenue projects present with existing and under construction surrounding buildings; and,        |
| C – Project plus Cumulative: | proposed 2015 and 2016 Telegraph Avenue projects present with existing, under construction and cumulative surrounding buildings. |

The photographs in Figures 1a through 1c show the test model in RWDI's boundary-layer wind tunnel. Although both 2015 and 2016 Telegraph projects were tested concurrently, this report presents the results for 2016 Telegraph, while those for 2015 Telegraph are in a separate report. The 2016 Telegraph project is proposed to be 190 ft high, consisting of an 18-storey tower and a mezzanine level. The test model was constructed using the design information and drawings listed in Appendix A. This report summarizes the methodology of wind tunnel studies for pedestrian wind conditions, describes the wind comfort and wind hazard criteria associated with wind force, as used in the current study, and presents the local wind conditions and their effects on pedestrians.

In addition to the list of Cumulative surrounding buildings to be included, the placement of wind measurement locations was based on our experience and understanding of the pedestrian usage for this site, and reviewed by Urban Planning Partners, Inc.

## 2. PRINCIPAL RESULTS

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The wind conditions around the proposed 2016 Telegraph Avenue project are discussed in detail in Section 5 of this report and may be summarized as follows:

- Wind speeds at all locations met the hazard criterion in all three test configurations.
- The majority of the locations at grade level meet the wind comfort criterion in the Existing configuration, with a few isolated locations which exceed this criterion.
- For the Existing plus Project configuration, wind speeds will increase north of the project site and in the immediate vicinity of the proposed building.



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- For the Project plus Cumulative configuration, wind speeds are expected to further increase along Telegraph Avenue, 21<sup>st</sup> Street, and within Henry J. Kaiser Memorial Park, although they are also predicted to decrease along 20<sup>th</sup> Street, west of the project site.

## 3. METHODOLOGY

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### 3.1 Wind Tunnel Testing

As shown in Figures 1a through 1c, the wind tunnel model included the project site and all relevant surrounding buildings and topography within a 1200 foot radius of the study site. The mean speed profile and turbulence of the natural wind approaching the modelled area were simulated in RWDI's boundary-layer wind tunnel. The model was instrumented with 62 wind speed sensors to measure mean and gust wind speeds at a full-scale height of approximately 5 feet. These measurements were recorded for 36 equally incremented wind directions.

### 3.2 Local Climate

Wind statistics recorded at the Metropolitan Oakland International Airport between 1984 and 2014 were analyzed for annual wind conditions. Figure 2 graphically depicts the directional distributions of annual wind frequencies and speeds. Winds are frequent from the west-southwest through northwest directions throughout the year, as indicated by the wind rose. Strong winds of a mean speed greater than 20 mph measured at the airport (at an anemometer height of 33 feet) occur 2.6% of the time annually.

Wind statistics from the Metropolitan Oakland International Airport were combined with the wind tunnel data in order to predict the frequency of occurrence of full-scale wind speeds. The full-scale wind predictions were then compared with the City of Oakland Significant Wind Impact Criterion.

### 3.3 Planning Code Requirements

A wind analysis only needs to be done if the height of the project is 100 feet or greater (Measured to the roof) and one of the following conditions exists: (a) the project is located adjacent to a substantial water body (i.e. Oakland Estuary, Lake Merritt or San Francisco Bay); or (b) the project is located in Downtown. Since the proposed project (232 feet tall) exceeds 100 feet in height and is located in Downtown, it is subject to the thresholds of significance.

For the purposes of this study, the City of Oakland considers a significant wind impact to occur if a project were to "Create winds exceeding 36 mph for more than one hour during daylight hours during the year". The Planning Code defines these wind speeds in terms of equivalent wind speeds, and average wind speed (mean velocity), adjusted to include the level of gustiness and turbulence. Equivalent wind speeds were calculated according to the specifications in the City of Oakland Significant Wind Impact Criterion, whereby the mean hourly wind speed is increased when the turbulence intensity is greater than 15% according to the following formula:

$$EWS = V_m \times (2 \times TI + 0.7)$$

where  $EWS$  = equivalent wind speed  
 $V_m$  = mean pedestrian-level wind speed  
 $TI$  = turbulence intensity

### 3.4 Pedestrian Comfort

Although not applicable towards the Significant Wind Impacts Criterion defined by the City of Oakland, wind comfort speeds have been calculated for informational purposes. The comfort criteria are that wind speeds do not exceed 11 mph for more than 10% of the time during the year, when calculated for daylight hours, in substantial pedestrian use areas. A lower wind speed threshold of 7 mph may be considered for public seating areas where calmer wind conditions are ideal.

### 3.5 Cumulative Buildings

Buildings in the surrounding area that are under construction and/or have been approved were modeled in accordance with the information received on October 4<sup>th</sup>, 2016 from the project team and the City of Oakland Planning Department. Buildings approved and pending future buildings were included in the Project plus Cumulative Configuration only. These sites are shown in Image 1 and listed in the following table.

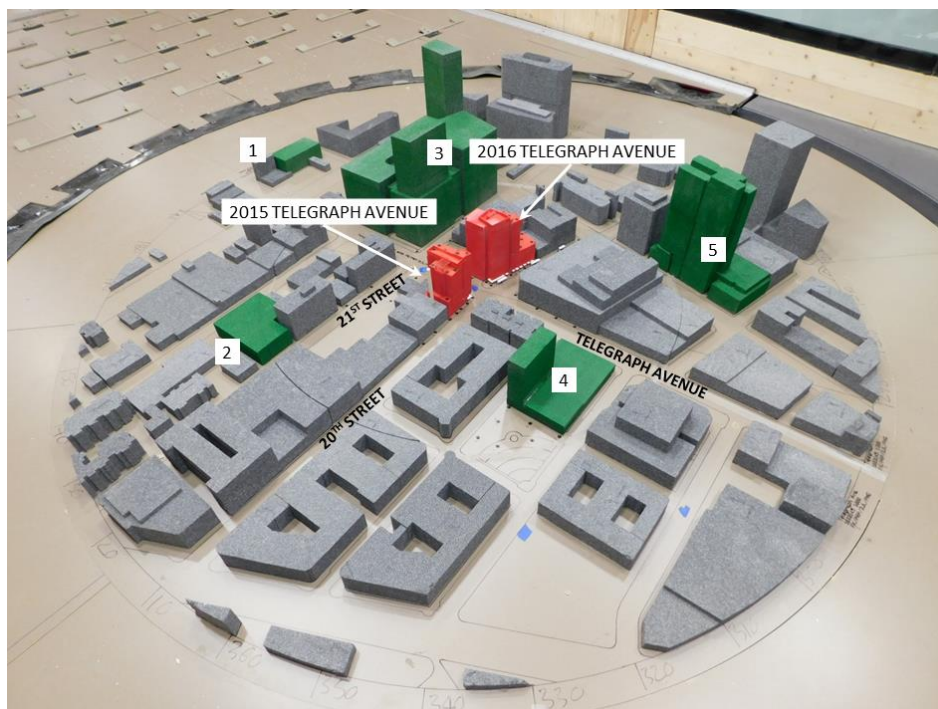


Image 1: In-construction and Cumulative Buildings (Numbered 1 - 5)

CUMULATIVE	
1	459 23 <sup>rd</sup> Street
2	585 22 <sup>nd</sup> Street
3	2100 Telegraph Avenue
4	1911 Telegraph Avenue
5	1900 Broadway

## 4. TEST RESULTS

This section presents the results of the wind tunnel measurements analyzed in terms of equivalent wind speeds as defined by the equation in Section 3.3. The text in the report simply refers to the data as wind speeds.

Table 1 presents the wind hazard results, and lists the predicted wind speed to be exceeded one hour per year. The predicted number of hours per year that the City of Oakland Significant Wind Impact Criterion (one minute wind speed of 36 mph) is exceeded is also provided. A letter “e” in the last column of each configuration indicates a wind hazard exceedance.

Table 2, located in the tables section of this report, presents the wind comfort results for the three configurations tested. For each measurement point, the measured 10% exceeded (90<sup>th</sup> percentile) equivalent wind speed and the percentage of time that the wind speed exceeds 11 mph are shown for areas considered to be used primarily for walking. A letter “e” in the last column of each configuration indicates a wind comfort exceedance.

### 4.1 Wind Hazard Conditions

Of the 62 grade level locations tested for the Existing configuration, none are currently predicted to exceed the hazard criterion (presented in Table 1 and Figure 4a). The number of locations exceeding the hazard criterion is expected to remain at zero for the Existing plus Project and Project plus Cumulative Configurations (Table 1 and Figures 4b and 4c). Therefore, the project is not predicted to create a significant wind impact (i.e., no grade level locations with wind speeds exceeding 36 mph for more than one hour during daylight hours during the year).

### 4.2 Wind Comfort Conditions

In the Existing configuration, the wind speeds in the vicinity of the project site are predicted to be generally moderate with 90<sup>th</sup> percentile wind speeds averaging 9 mph for all 62 measurement locations. Low wind speeds are predicted along Telegraph Avenue to the northwest of the project site. The 11 mph comfort criterion is exceeded at six locations along 20<sup>th</sup> Street, Telegraph Ave and 21<sup>s</sup> Street (Locations 25, 32, 33, 40, 44 and 50 in Figure 4a and Table 2). On average, wind speeds in the Existing configuration exceed the 11 mph criterion 6% of the time (see page 3 of Table 2).



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In the Existing plus Project Configuration, with the addition of the proposed development, higher wind speeds are predicted along Telegraph Ave and to the north and west of the project site. The 11 mph comfort criterion is exceeded at 10 locations along 20<sup>th</sup> Street, Telegraph Ave and 21<sup>st</sup> Street (Locations 7, 20, 25, 26, 28, 29, 30, 32, 40 and 44 in Figure 3b and Table 2). Wind speeds are expected to average at 9.8 mph at grade level, which is a marginally increase from the average wind speed in the Existing configuration. The frequency that the 11 mph criterion was exceeded remains very similar to the Existing Configuration (7% of the time) (see page 3 of Table 2).

Anticipated wind comfort conditions in the Project plus Cumulative configuration, with the addition of the future surroundings, are presented in Figure 3c. When compared to the Existing configuration, wind speeds north of the project site along Telegraph Avenue and 21<sup>st</sup> Street, are expected to increase (Table 2). The 11 mph comfort criterion is exceeded at 19 locations along 21<sup>st</sup> Street, Telegraph Ave, 20<sup>th</sup> Street and 19<sup>th</sup> Street (Locations 10, 11, 14, 20, 21, 23 to 27, 29, 30, 29, 40, 44, 57, and 60 to 62 in Figures 3c and Table 2). Reductions in wind speed are predicted to the north of the project site, as well as to the south of the proposed development, along Telegraph Ave. Generally, average wind conditions are predicted to remain similar to the Existing and Existing plus Project Configurations (10.3 mph in Table 2). In comparison to the Existing plus Project Configuration, exceedance of the 11 mph criterion increased marginally from 7% to 9% of the time (see Table 2) with the addition of the Cumulative surrounding buildings.

## 5. APPLICABILITY OF RESULTS

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The wind conditions presented in this report pertain to the proposed 2016 Telegraph Avenue development as detailed in the architectural design drawings listed in Appendix A. Should there be any design changes that deviate from this list of drawings, the wind condition predictions presented may change. Therefore, if changes in the design are made, it is recommended that RWDI be contacted and requested to review their potential effects on wind conditions.



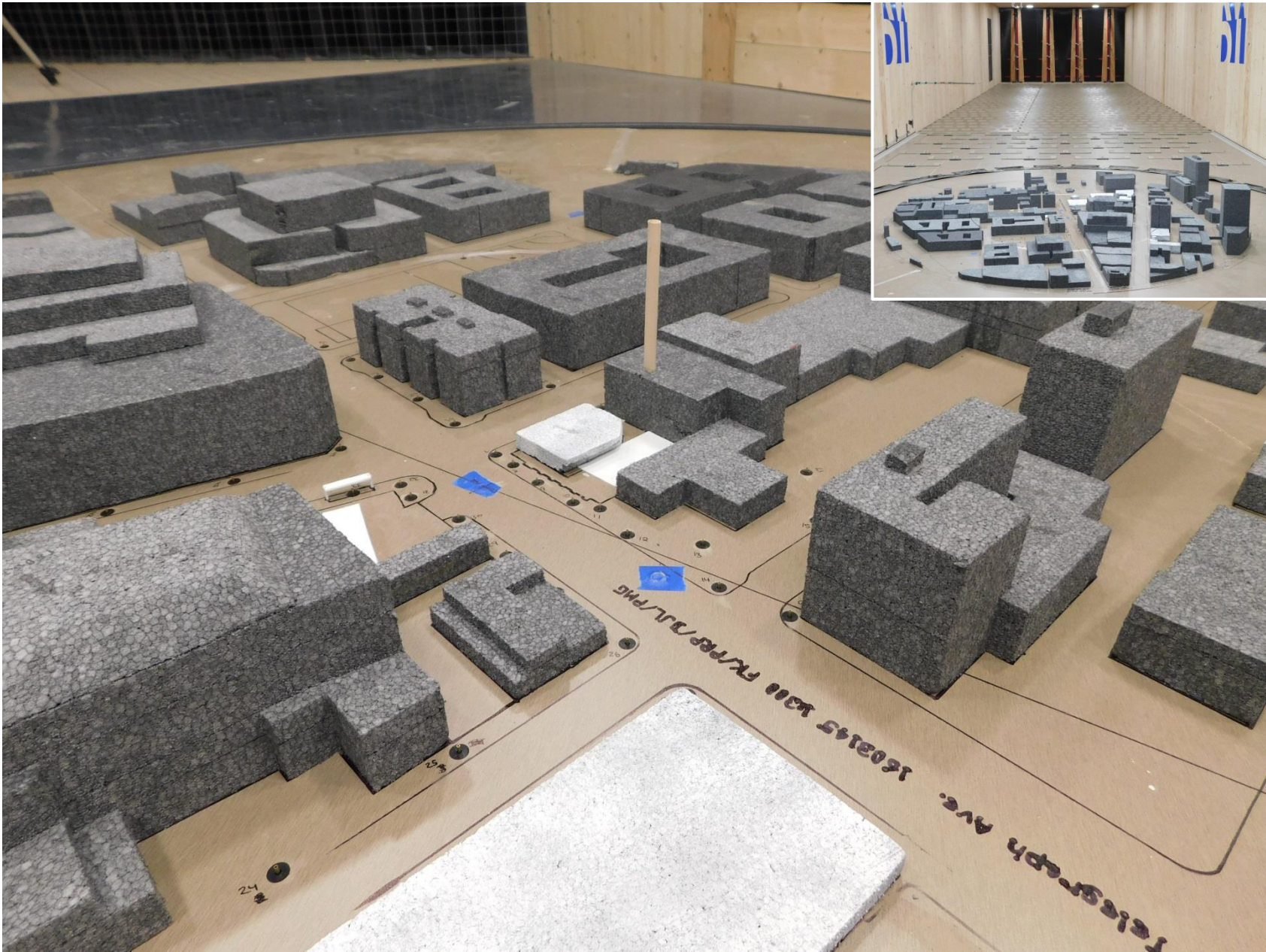
## 6. REFERENCES

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- 1) ASCE Task Committee on Outdoor Human Comfort (2004). *Outdoor Human Comfort and Its Assessment*, 68 pages, American Society of Civil Engineers, Reston, Virginia, USA.
- 2) Williams, C.J., Hunter, M.A. and Waechter, W.F. (1990). "Criteria for Assessing the Pedestrian Wind Environment," *Journal of Wind Engineering and Industrial Aerodynamics*, Vol.36, pp.811-815.
- 3) Williams, C.J., Soligo M.J. and Cote, J. (1992). "A Discussion of the Components for a Comprehensive Pedestrian Level Comfort Criteria," *Journal of Wind Engineering and Industrial Aerodynamics*, Vol.41-44, pp.2389-2390.
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- 7) Lawson, T.V. (1973). "Wind Environment of Buildings: A Logical Approach to the Establishment of Criteria", *Report No. TVL 7321*, Department of Aeronautic Engineering, University of Bristol, Bristol, England.
- 8) Durgin, F. H. (1997). "Pedestrian Level Wind Criteria Using the Equivalent average", *Journal of Wind Engineering and Industrial Aerodynamics*, Vol. 66, pp. 215-226.



# FIGURES



**Wind Tunnel Study Model**  
Existing

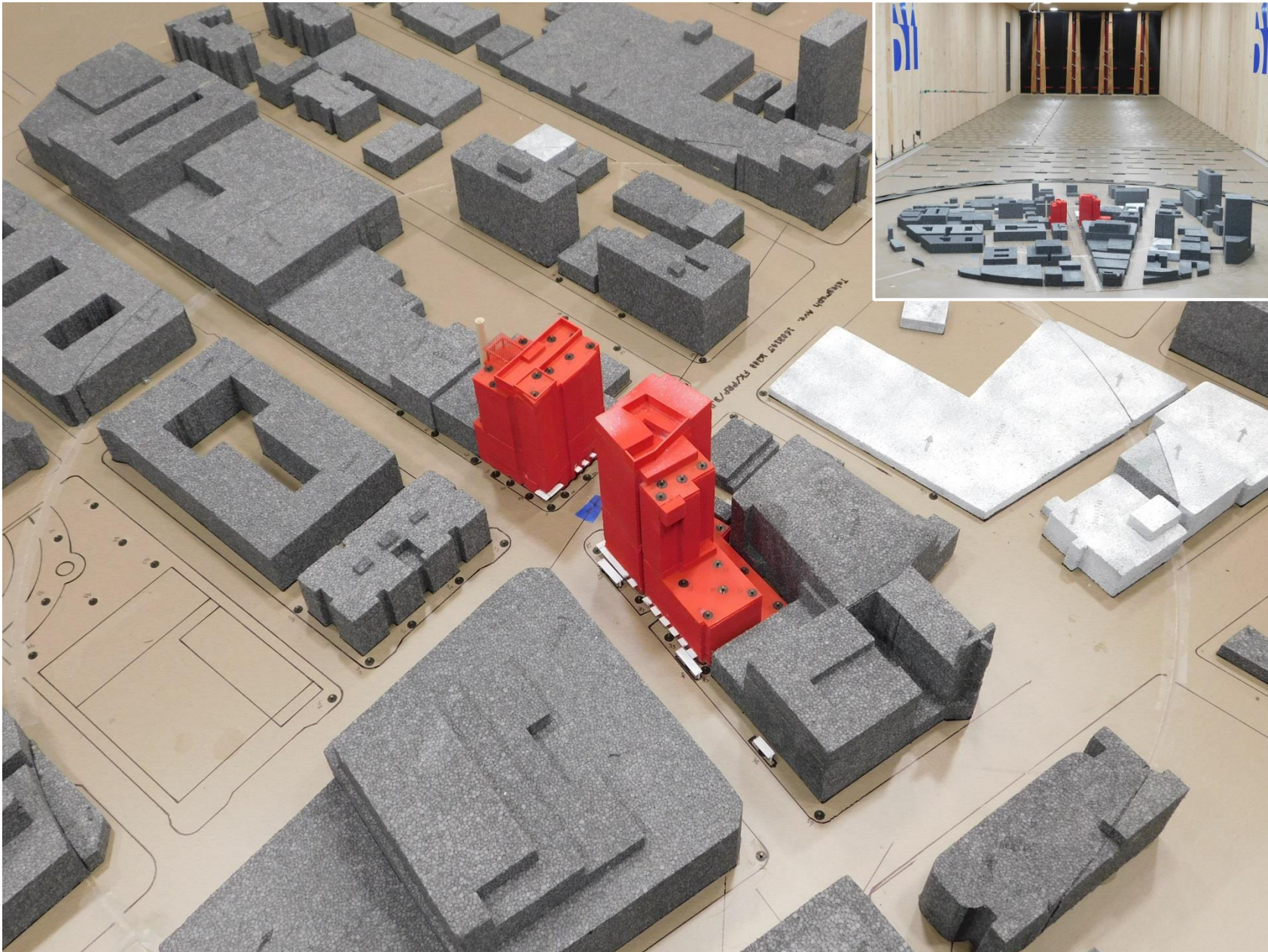
2016 Telegraph Avenue – Oakland, CA

Figure No. 1a

Date: November 11, 2016

Project #1603146





**Wind Tunnel Study Model**  
Existing + Project

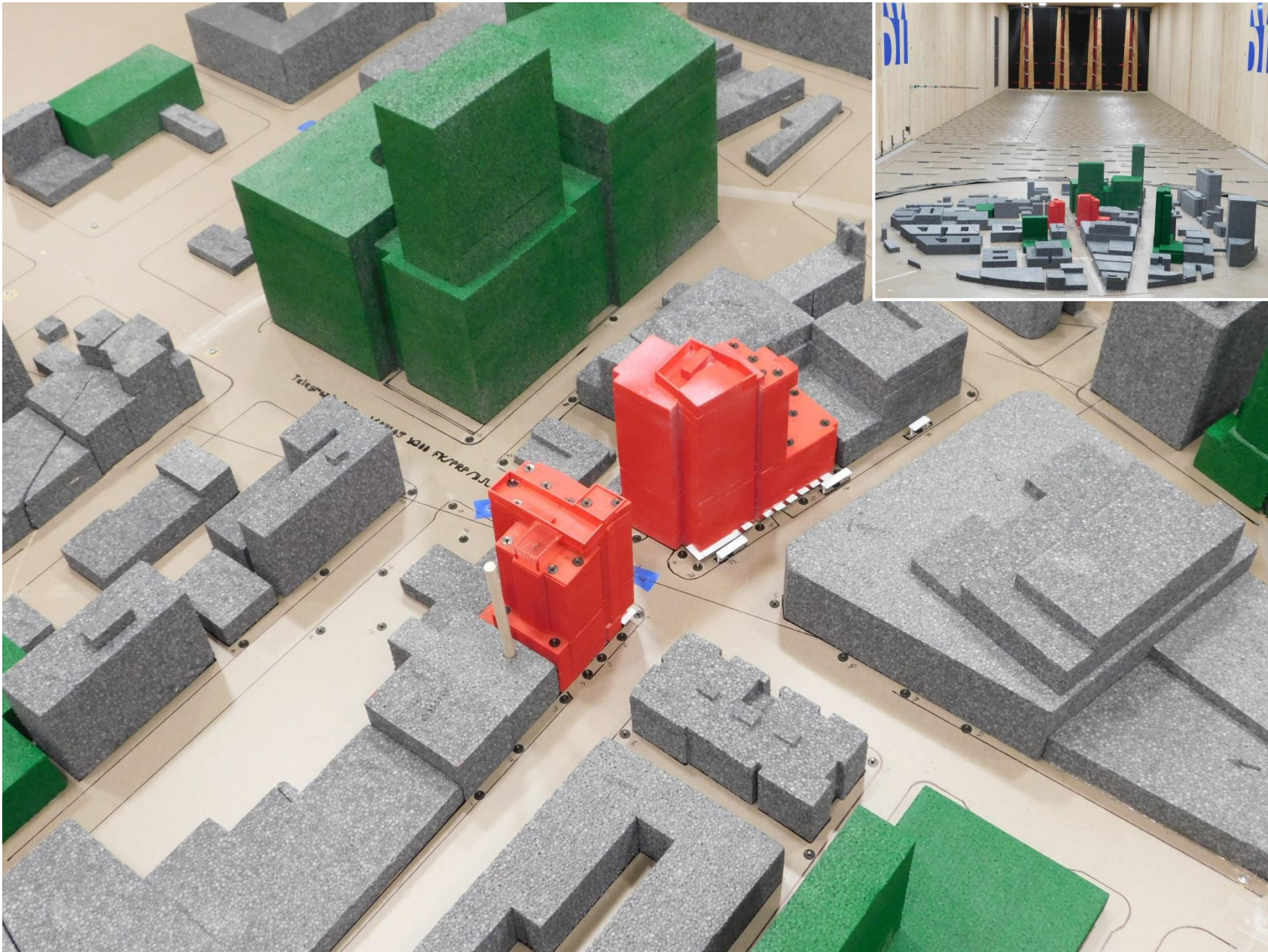
2016 Telegraph Avenue – Oakland, CA

Figure No. 1b

Date: November 11, 2016

Project #1603146





**Wind Tunnel Study Model**  
Project + Cumulative

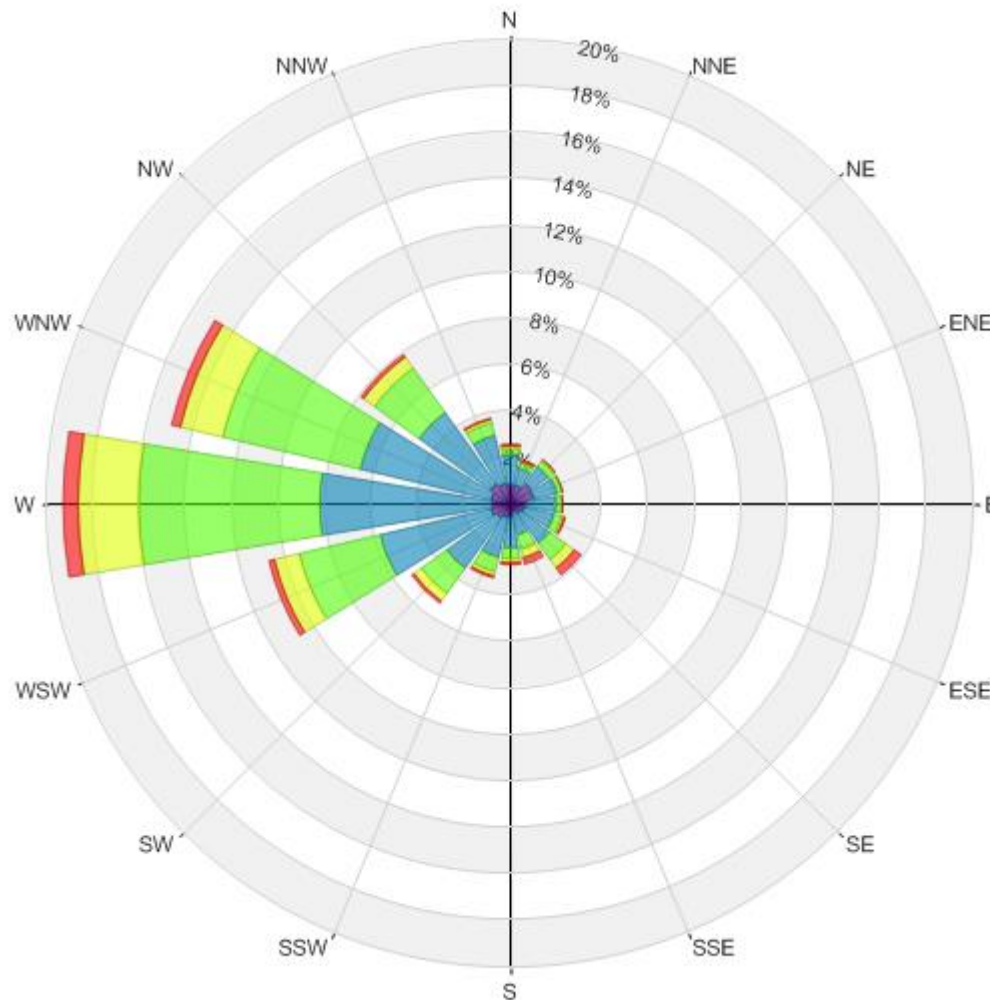
2016 Telegraph Avenue – Oakland, CA

Figure No. 1c

Date: November 11, 2016



Project #1603146



Wind Speed (mph)	Probability (%)
Calm	11.8
1-5	12.4
6-10	39.0
11-15	26.0
16-20	8.3
>20	2.6

Annual Winds

**Directional Distribution (%) of Winds (Blowing From)  
Metropolitan Oakland International Airport (1984 - 2014)**

2016 Telegraph Avenue – Oakland, CA

Figure No. 2

Project #1603146

Date: September 25th, 2016



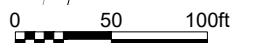
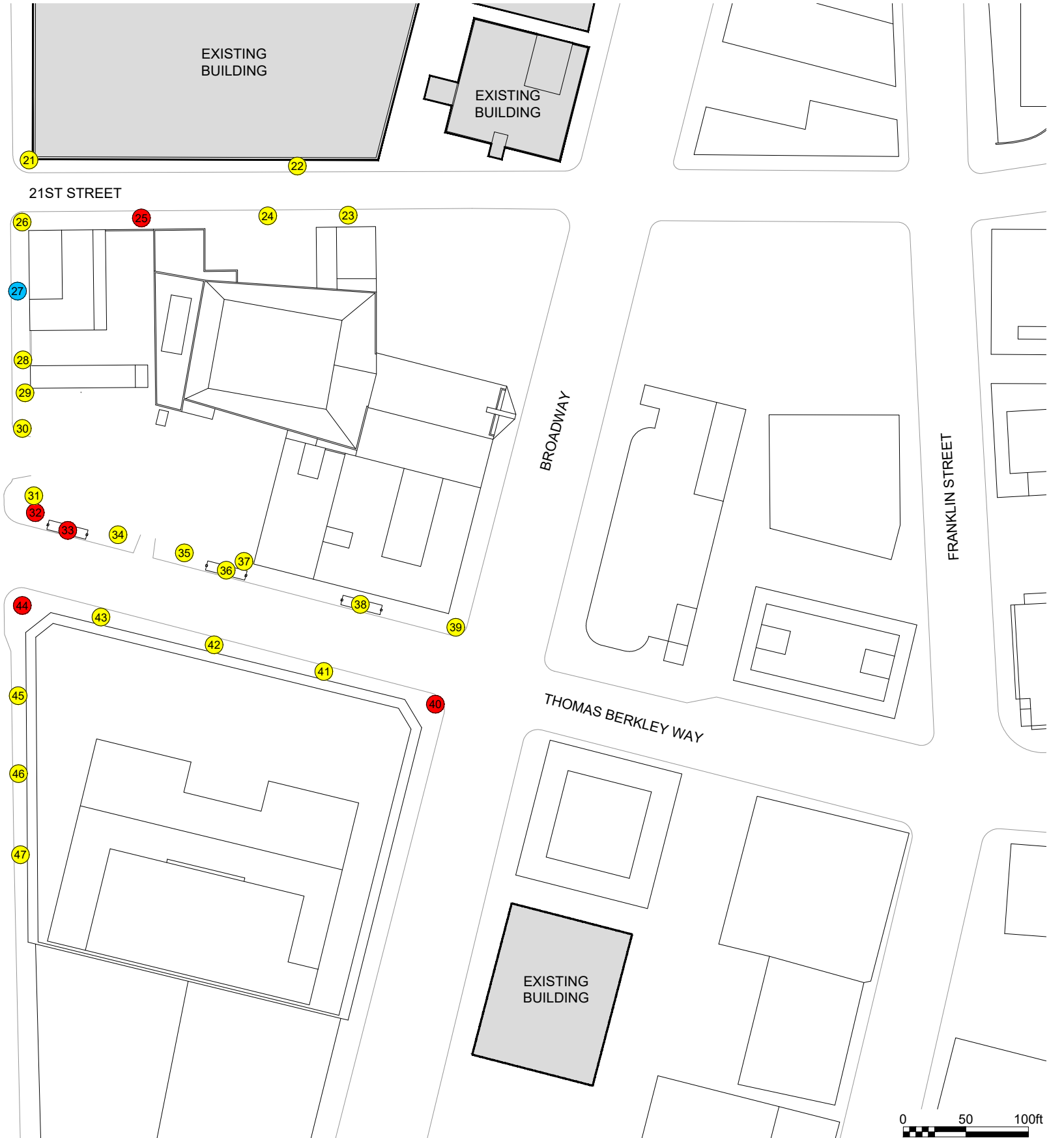
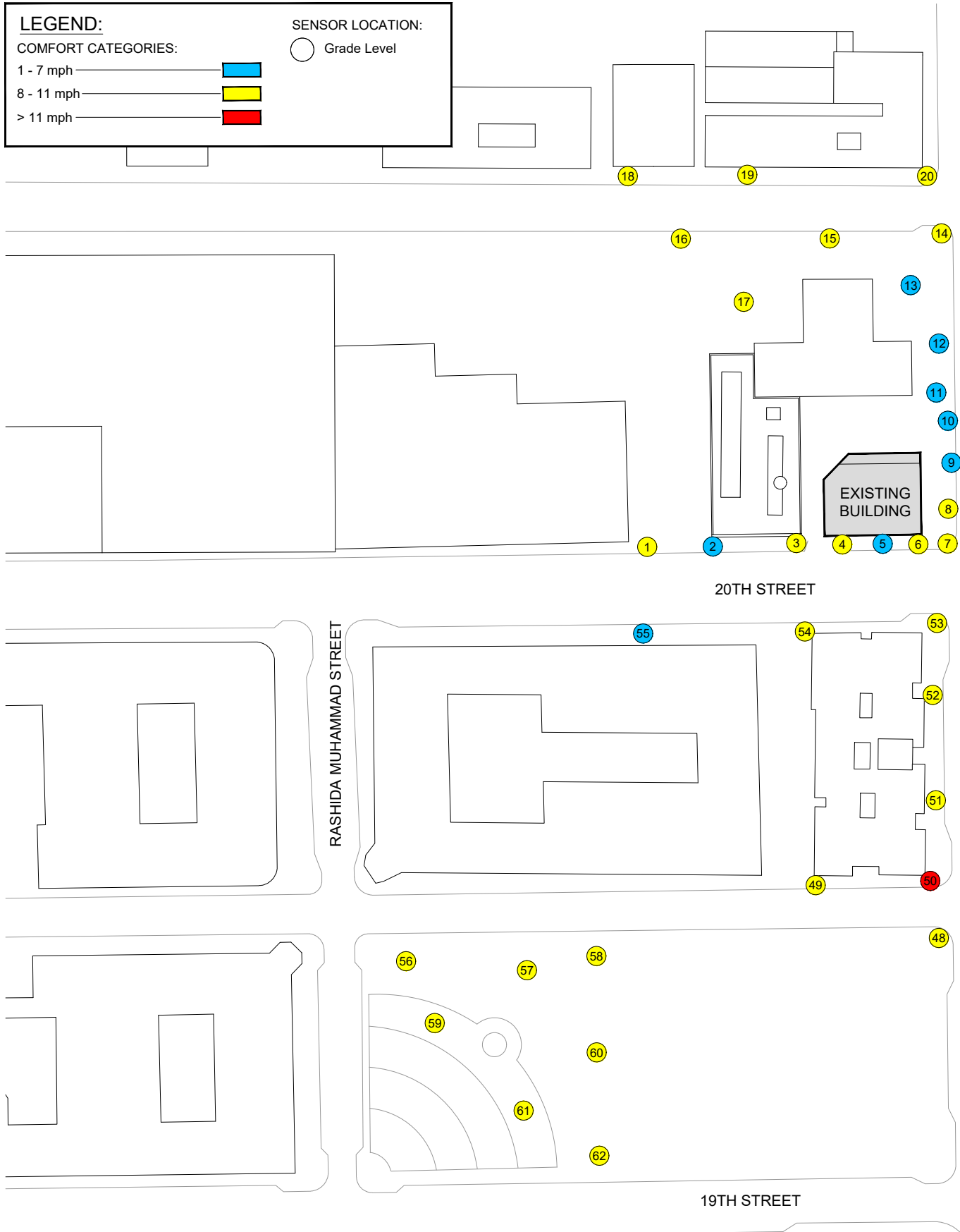
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COMFORT CATEGORIES:

- 1 - 7 mph
- 8 - 11 mph
- > 11 mph

SENSOR LOCATION:

○ Grade Level



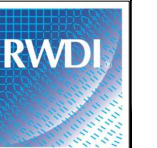
Pedestrian Wind Comfort Conditions - Existing  
Annual (January to December)

2016 Telegraph Avenue - Oakland, CA



Drawn by: ARM Figure: 3a  
Approx. Scale: 1"=100'  
Date Revised: Feb. 17, 2017

Project #1603146



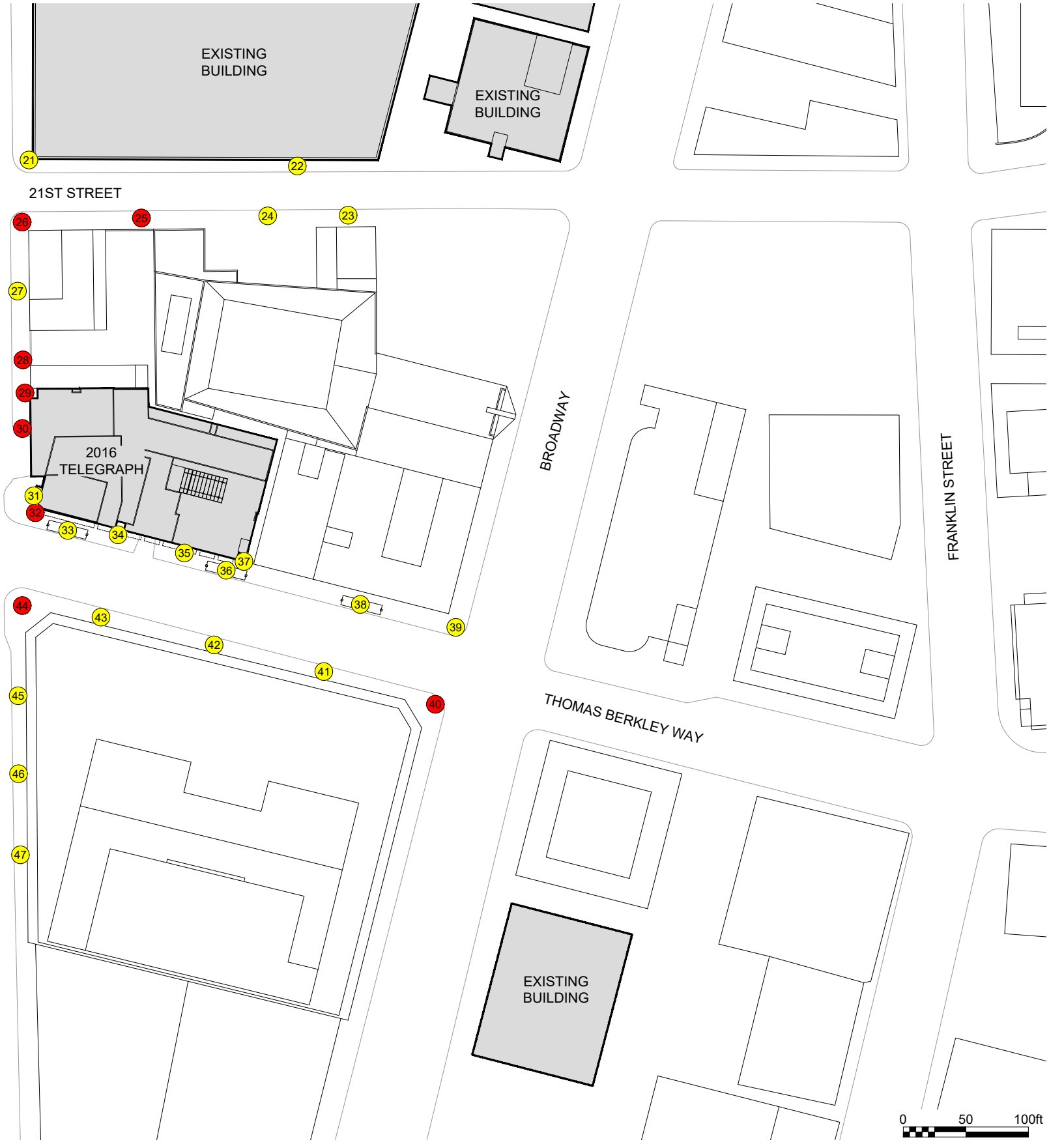
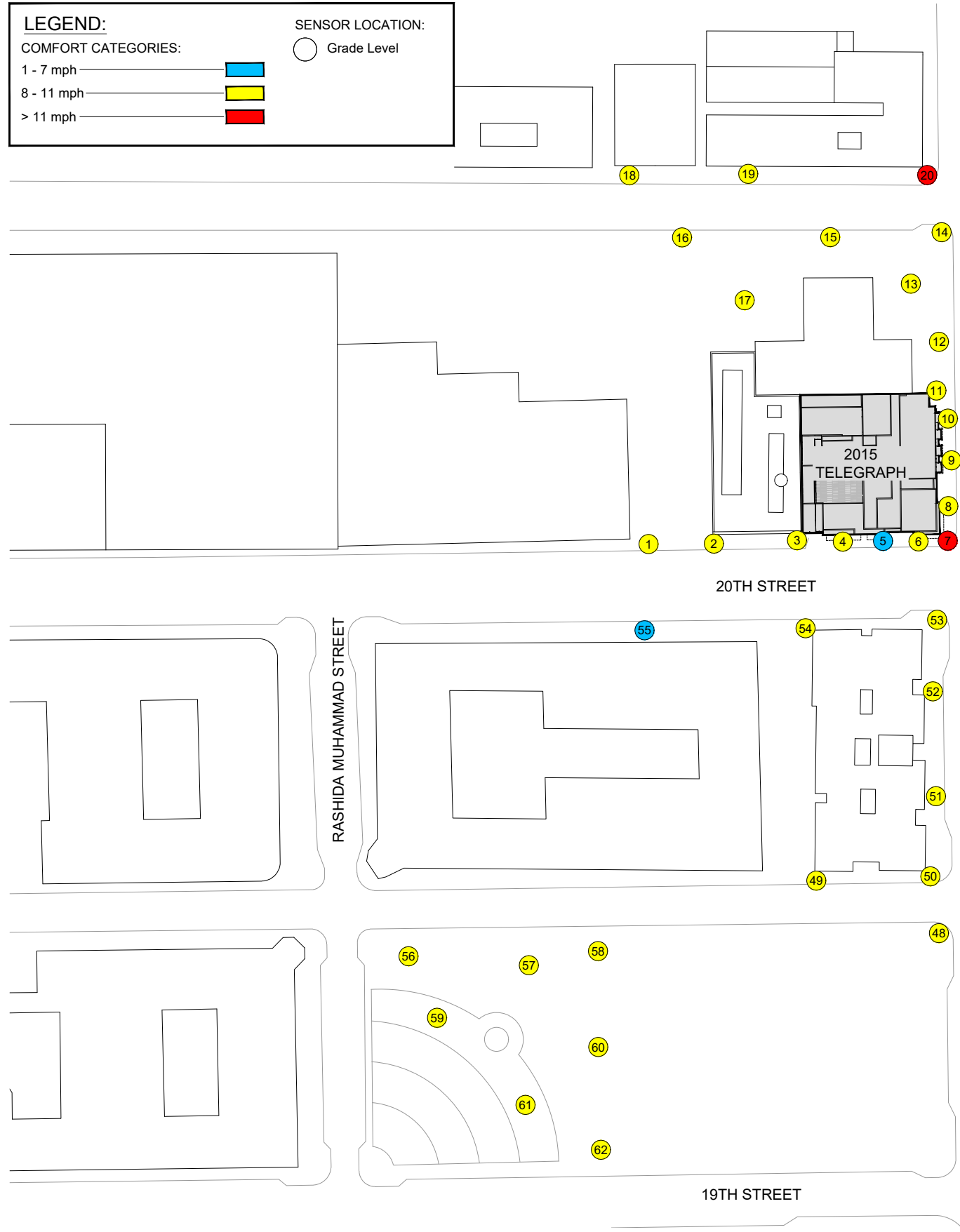
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**COMFORT CATEGORIES:**

- 1 - 7 mph
- 8 - 11 mph
- > 11 mph

**SENSOR LOCATION:**

- Grade Level



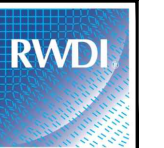
Pedestrian Wind Comfort Conditions - Existing + Project  
Annual (January to December)

2016 Telegraph Avenue - Oakland, CA



Drawn by: ARM	Figure: 3b
Approx. Scale: 1"=100'	
Date Revised: Feb. 17, 2017	

Project #1603146



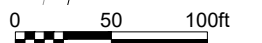
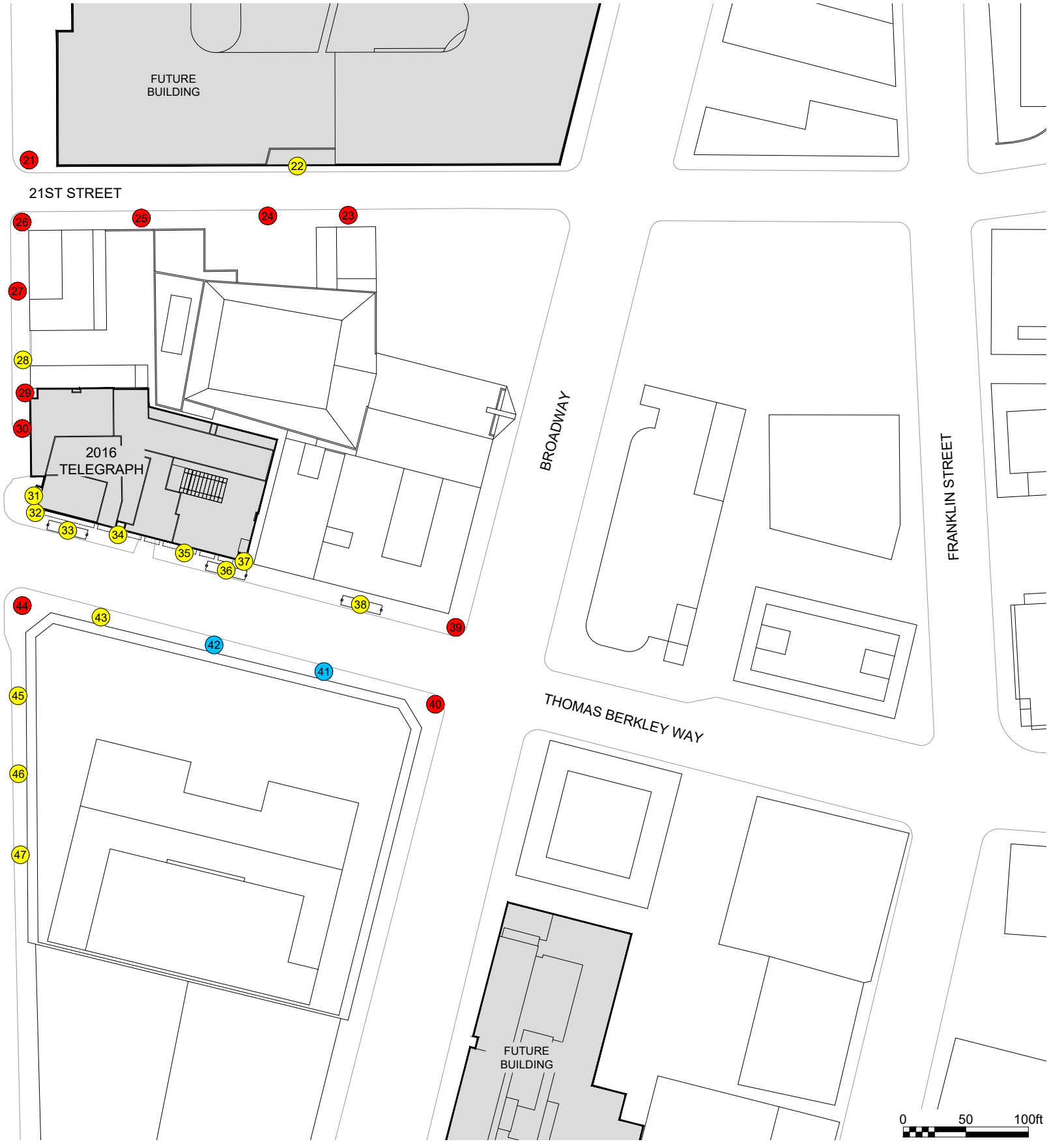
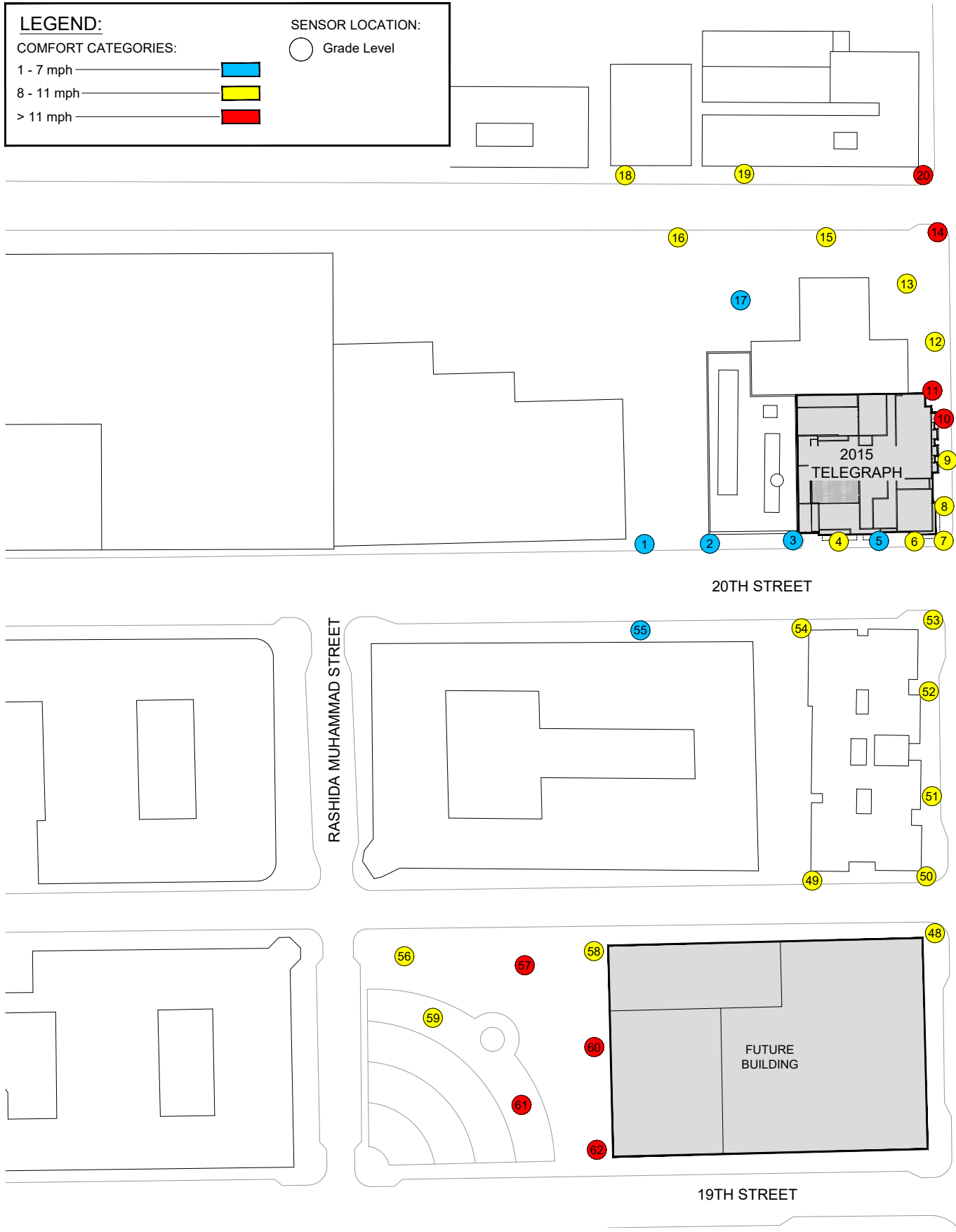
**LEGEND:**

**COMFORT CATEGORIES:**

- 1 - 7 mph
- 8 - 11 mph
- > 11 mph

**SENSOR LOCATION:**

○ Grade Level



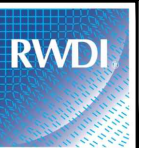
Pedestrian Wind Comfort Conditions - Project + Cumulative  
Annual (January to December)

2016 Telegraph Avenue - Oakland, CA

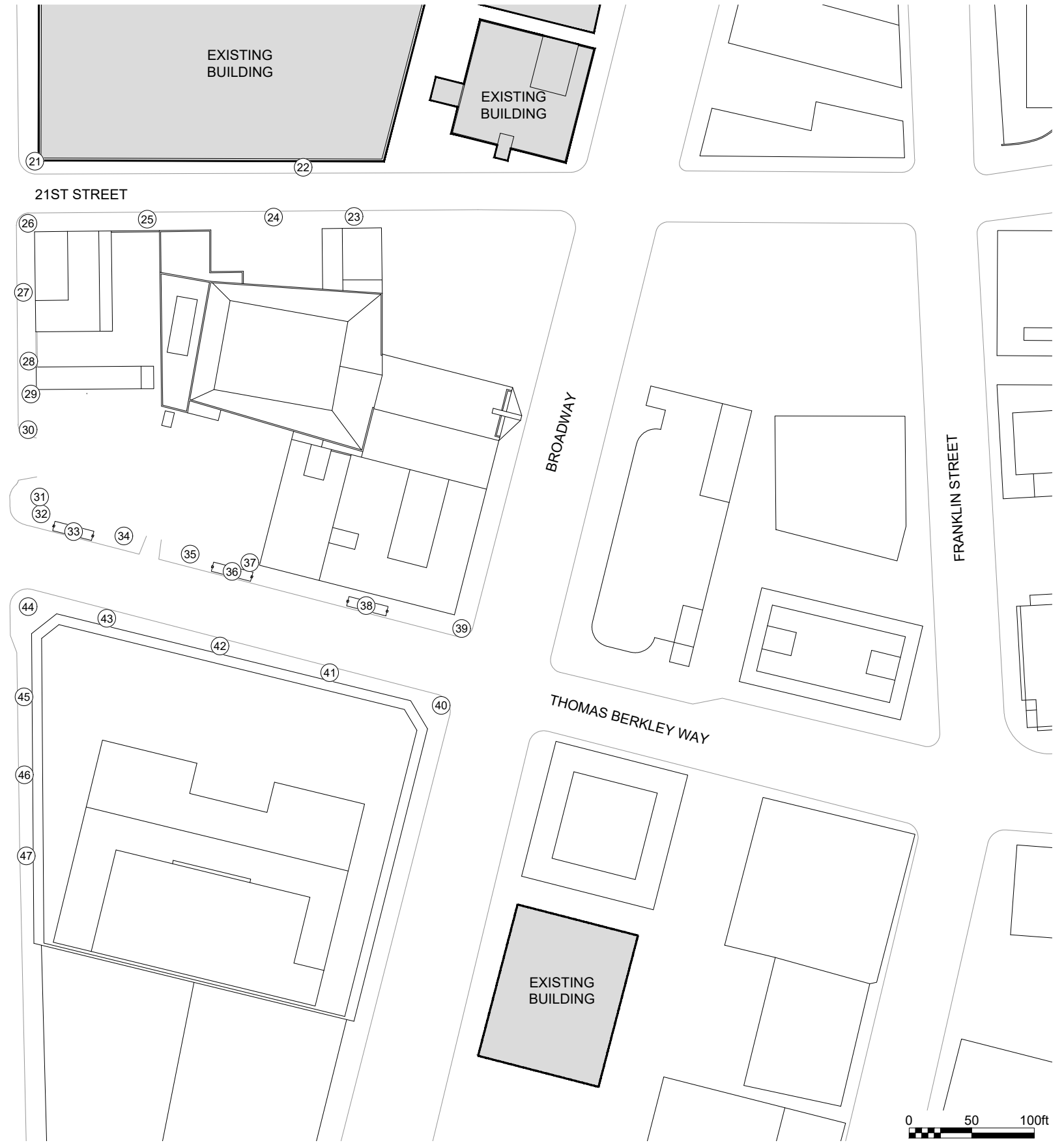
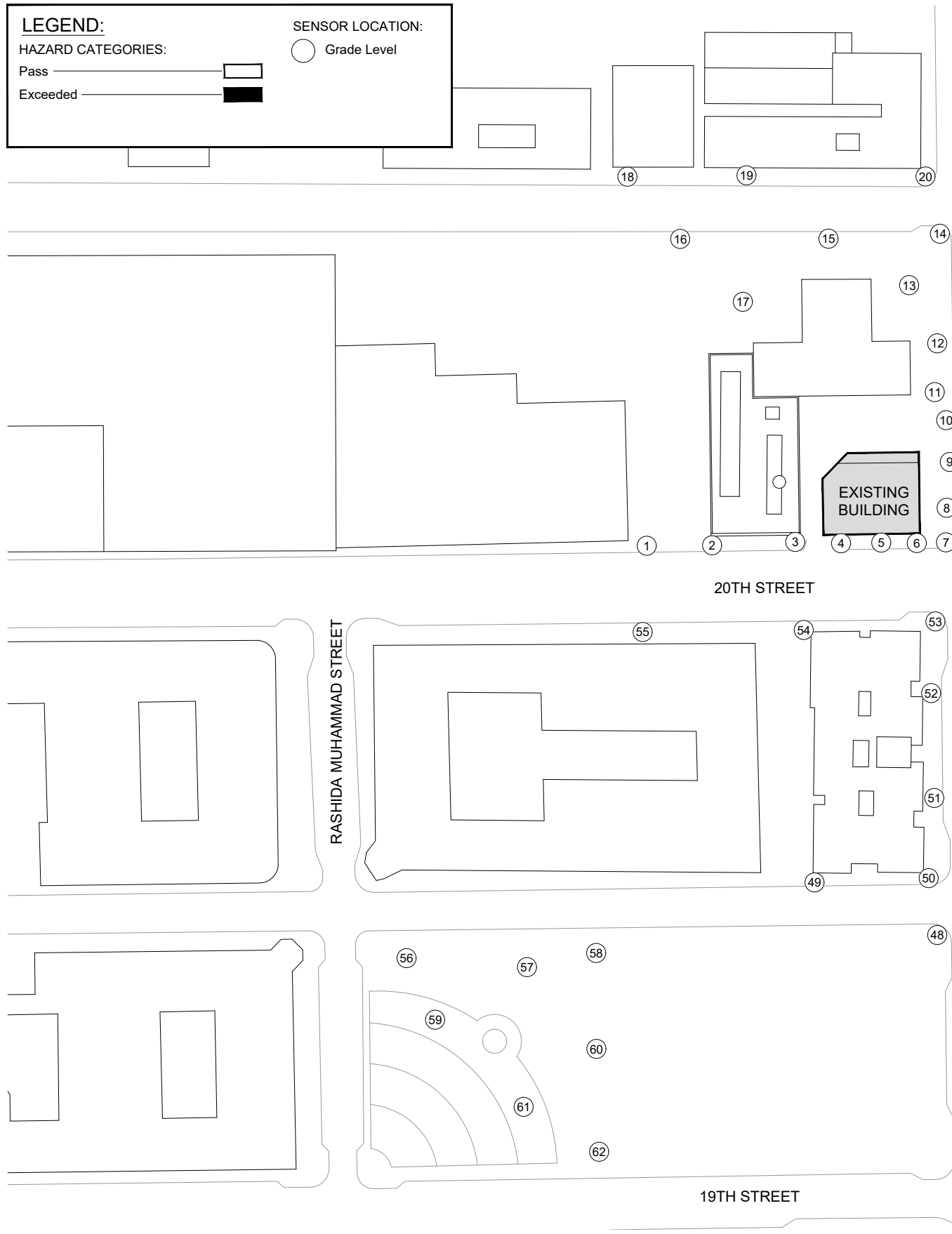


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Date Revised: Feb. 17, 2017	

Project #1603146







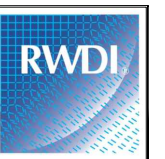
Pedestrian Wind Hazard Conditions - Existing  
 Annual (January to December)

2016 Telegraph Avenue - Oakland, CA





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 Date Revised: Feb. 17, 2017

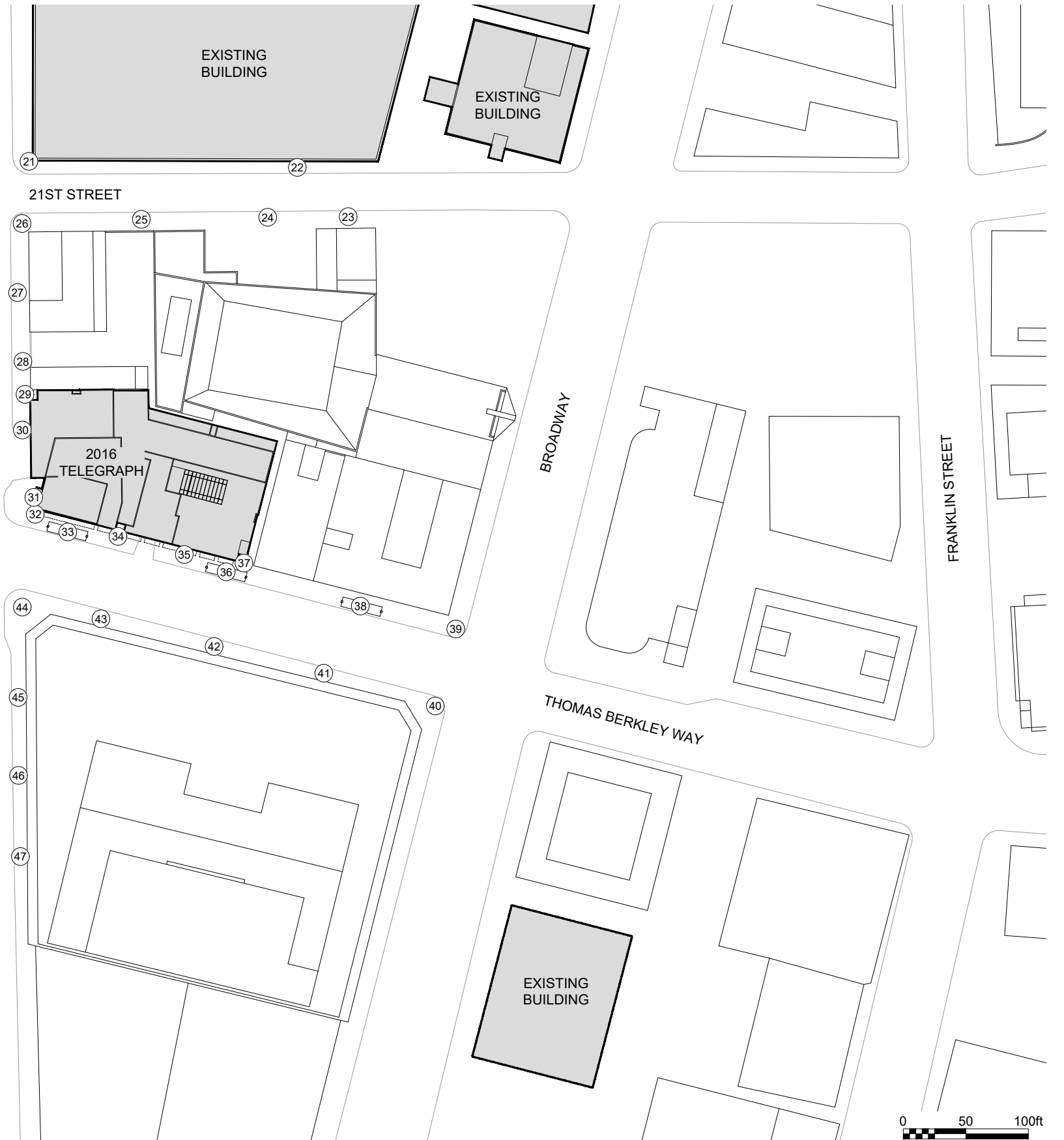
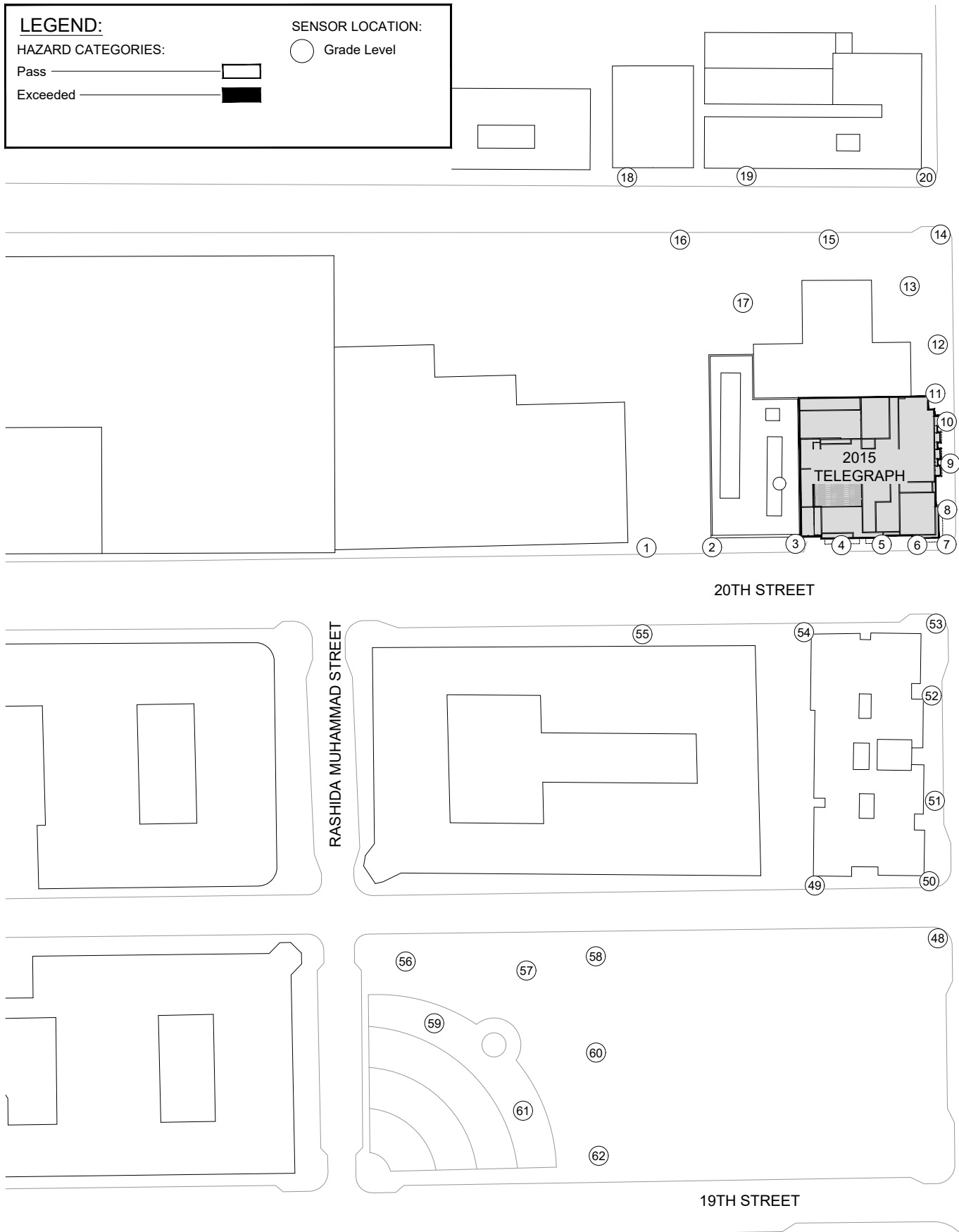
Project #1603146



**LEGEND:**

**HAZARD CATEGORIES:**  
 Pass   
 Exceeded 

**SENSOR LOCATION:**  
 ○ Grade Level



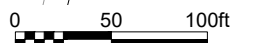
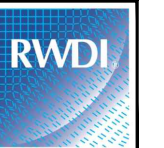
Pedestrian Wind Hazard Conditions - Existing + Project  
 Annual (January to December)

2016 Telegraph Avenue - Oakland, CA




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 Approx. Scale: 1"=100'  
 Date Revised: Feb. 17, 2017


Project #1603146




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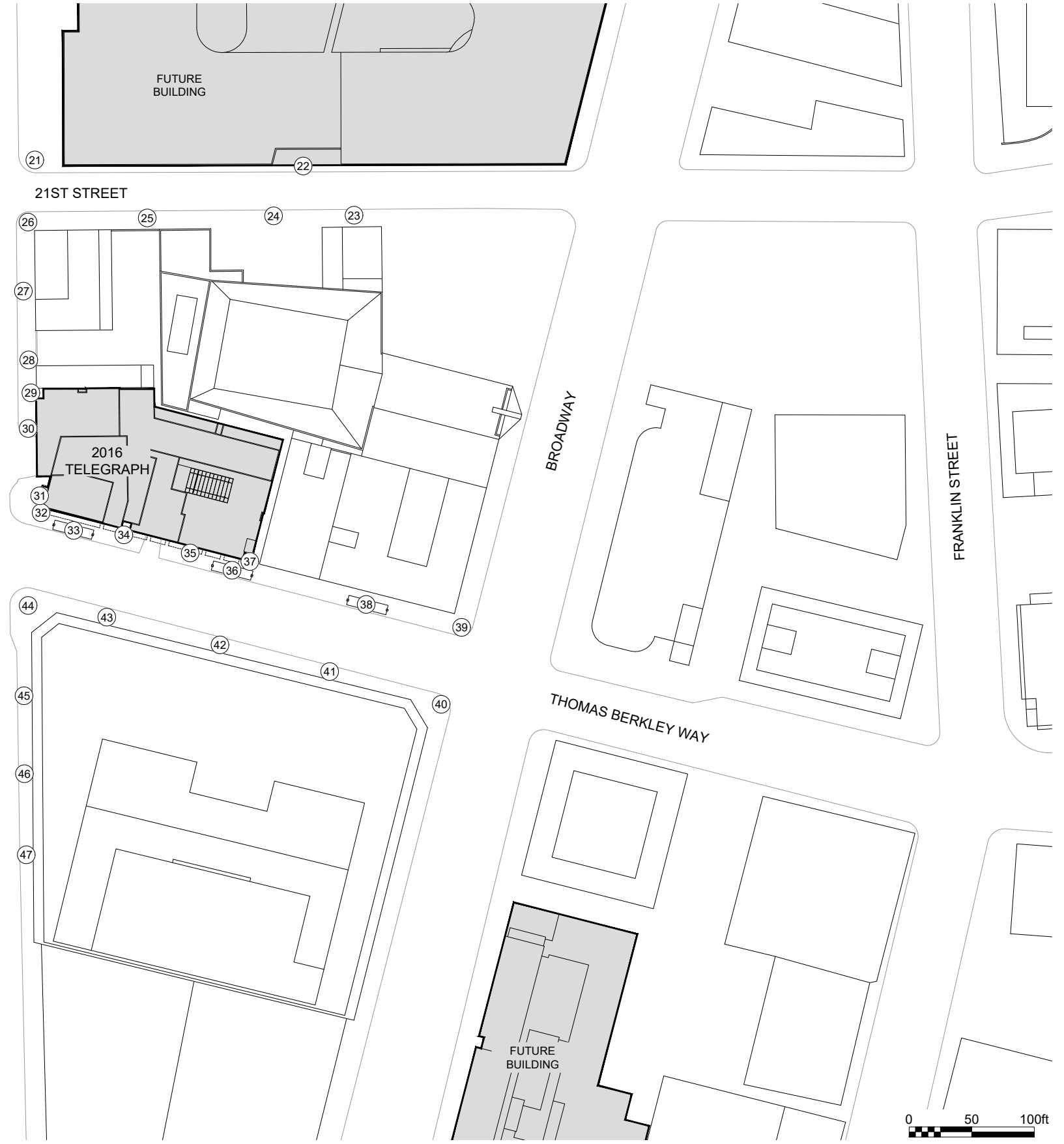
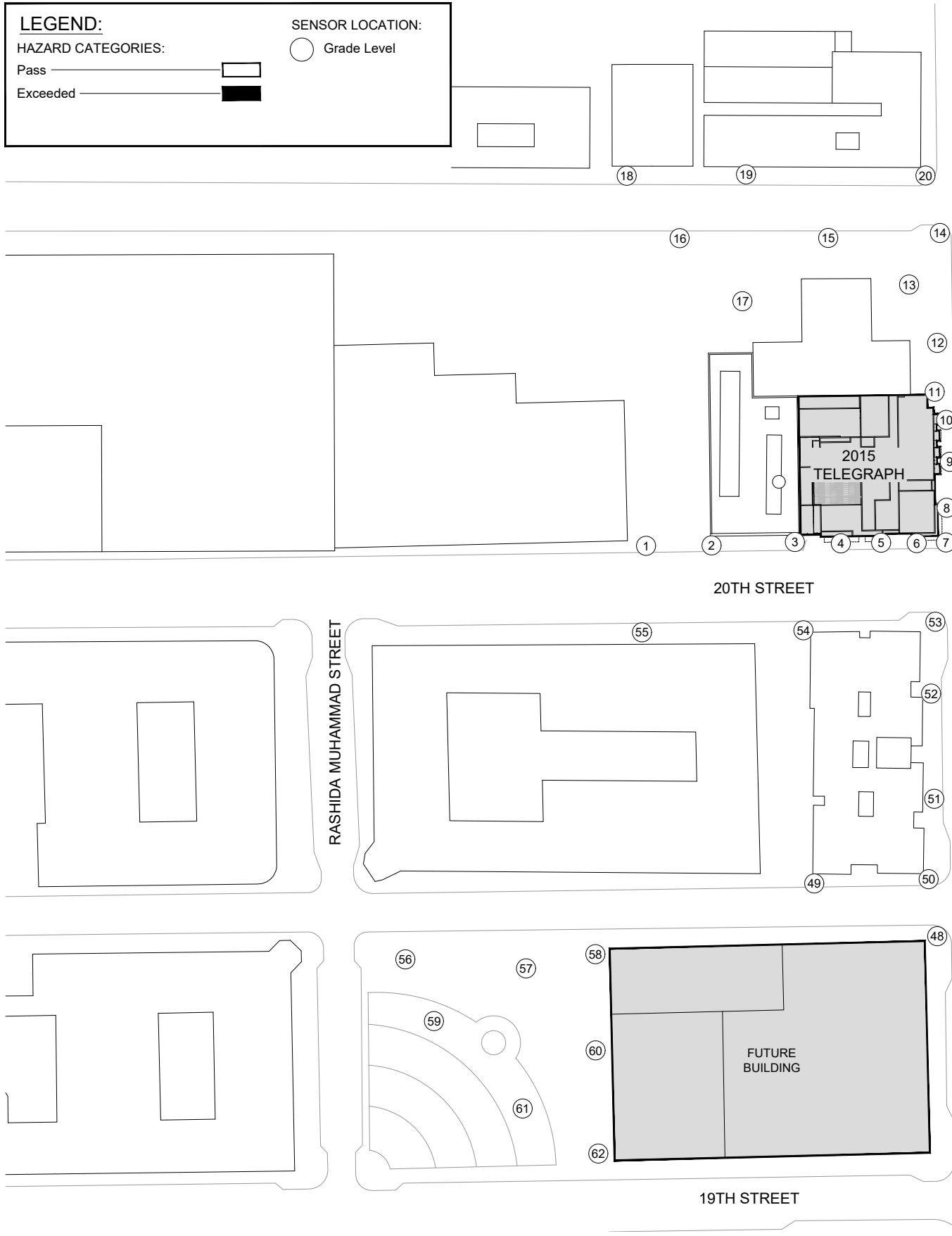
**HAZARD CATEGORIES:**

Pass 

Exceeded 

**SENSOR LOCATION:**

Grade Level 



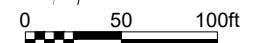
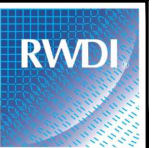
Pedestrian Wind Hazard Conditions - Project + Cumulative  
Annual (January to December)

2016 Telegraph Avenue - Oakland, CA



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Approx. Scale: 1"=100'  
Date Revised: Feb. 17, 2017

Project #1603146



# TABLES



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**Table 1: Wind Hazard Results**

Location Number	A Existing			B Existing + Project				C Project + Cumulative			
	Wind Speed Exceeded 1 hour/year (mph)	Hours per Year Wind Speeds Exceed Hazard Criteria	Exceeds	Wind Speed Exceeded 1 hour/year (mph)	Hours per Year Wind Speeds Exceed Hazard Criteria	Hours Change Relative to Existing	Exceeds	Wind Speed Exceeded 1 hour/year (mph)	Hours per Year Wind Speeds Exceed Hazard Criteria	Hours Change Relative to Existing	Exceeds
1	19	0		21	0	0		18	0	0	
2	15	0		26	0	0		23	0	0	
3	20	0		23	0	0		21	0	0	
4	17	0		19	0	0		17	0	0	
5	17	0		17	0	0		17	0	0	
6	16	0		19	0	0		18	0	0	
7	21	0		27	0	0		24	0	0	
8	21	0		30	0	0		21	0	0	
9	21	0		25	0	0		22	0	0	
10	21	0		25	0	0		28	0	0	
11	21	0		23	0	0		27	0	0	
12	21	0		25	0	0		23	0	0	
13	21	0		25	0	0		22	0	0	
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16	24	0		26	0	0		21	0	0	
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35	21	0		20	0	0		19	0	0	
36	24	0		26	0	0		22	0	0	
37	23	0		22	0	0		18	0	0	



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**Table 1: Wind Hazard Results**

Location Number	A Existing			B Existing + Project				C Project + Cumulative			
	Wind Speed Exceeded 1 hour/year (mph)	Hours per Year Wind Speeds Exceed Hazard Criteria	Exceeds	Wind Speed Exceeded 1 hour/year (mph)	Hours per Year Wind Speeds Exceed Hazard Criteria	Hours Change Relative to Existing	Exceeds	Wind Speed Exceeded 1 hour/year (mph)	Hours per Year Wind Speeds Exceed Hazard Criteria	Hours Change Relative to Existing	Exceeds
38	22	0		22	0	0		21	0	0	
39	24	0		23	0	0		25	0	0	
40	29	0		28	0	0		29	0	0	
41	26	0		24	0	0		23	0	0	
42	25	0		23	0	0		20	0	0	
43	21	0		25	0	0		31	0	0	
44	30	0		26	0	0		25	0	0	
45	23	0		23	0	0		22	0	0	
46	22	0		21	0	0		22	0	0	
47	22	0		20	0	0		20	0	0	
48	27	0		26	0	0		28	0	0	
49	25	0		24	0	0		26	0	0	
50	29	0		27	0	0		27	0	0	
51	24	0		23	0	0		20	0	0	
52	23	0		25	0	0		18	0	0	
53	25	0		29	0	0		23	0	0	
54	27	0		23	0	0		23	0	0	
55	22	0		23	0	0		24	0	0	
56	17	0		18	0	0		25	0	0	
57	19	0		19	0	0		27	0	0	
58	21	0		22	0	0		27	0	0	
59	19	0		18	0	0		24	0	0	
60	21	0		20	0	0		28	0	0	
61	19	0		19	0	0		26	0	0	
62	22	0		22	0	0		31	0	0	



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**Table 1:** Wind Hazard Results

Summary of Wind Hazard Results:

	Existing			Existing + Project				Project + Cumulative			
	Wind Speed Exceeded 1hr/year (mph)	Hours/Year Wind Speeds Exceed Hazard Criterion	Exceeds	Wind Speed Exceeded 1 hr/year (mph)	Hours/Year Wind Speeds Exceed Hazard Criterion	Hours Change Relative to Existing	Exceeds	Wind Speed Exceeded 1 hr/year (mph)	Hours/Year Wind Speeds Exceed Hazard Criterion	Hours Change Relative to Existing	Exceeds
Average speed, Total Hours and Total exceedances	22.4 mph	0hrs	0 of 62	23.6 mph	0hrs	0 hrs	0 of 62	24.1 mph	0hrs	0 hrs	0 of 62



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**Table 2: Wind Comfort Results**

Location Number	Existing			Existing + Project				Project + Cumulative			
	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph	Exceeds	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph	Speed Change Relative to Existing (mph)	Exceeds	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph	Speed Change Relative to Existing (mph)	Exceeds
1	9	2		8	2	-1		7	1	-2	
2	7	0		8	3	1		7	2	0	
3	9	3		8	2	-1		7	1	-2	
4	8	1		8	1	0		8	1	0	
5	7	1		7	1	0		7	0	0	
6	8	1		10	4	2		9	3	1	
7	9	3		12	16	3	e	11	10	2	
8	8	2		9	6	1		9	3	1	
9	7	1		10	5	3		10	4	3	
10	7	2		9	5	2		12	15	5	e
11	7	1		8	3	1		12	15	5	e
12	7	1		9	4	2		11	10	4	
13	7	1		9	3	2		9	3	2	
14	10	7		11	10	1		12	14	2	e
15	10	8		10	7	0		9	4	-1	
16	10	7		10	6	0		9	4	-1	
17	9	3		9	2	0		7	1	-2	
18	9	5		9	4	0		9	4	0	
19	9	4		9	5	0		8	3	-1	
20	11	10		12	13	1	e	13	20	2	e
21	9	5		10	6	1		15	27	6	e
22	10	4		10	5	0		11	10	1	
23	9	2		9	2	0		13	17	4	e
24	10	6		10	6	0		14	22	4	e
25	15	27	e	12	15	-3	e	16	30	1	e
26	10	5		12	15	2	e	16	32	6	e
27	7	1		9	4	2		12	12	5	e
28	8	2		13	16	5	e	11	10	3	
29	8	2		13	22	5	e	12	13	4	e
30	8	2		14	25	6	e	12	15	4	e
31	10	6		10	7	0		9	3	-1	
32	12	15	e	12	14	0	e	11	10	-1	
33	13	16	e	10	5	-3		11	10	-2	
34	10	6		11	10	1		11	10	1	
35	9	3		10	4	1		9	3	0	
36	11	10		10	7	-1		10	5	-1	
37	11	10		9	4	-2		9	2	-2	





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**Table 2: Wind Comfort Results**

Reference	Existing			Existing + Project				Project + Cumulative			
	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph	Exceeds	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph	Speed Change Relative to Existing (mph)	Exceeds	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph	Speed Change Relative to Existing (mph)	Exceeds
38	10	5		10	6	0		9	5	-1	
39	11	10		10	7	-1		12	13	1	e
40	12	15	e	12	14	0	e	13	19	1	e
41	9	5		8	3	-1		7	2	-2	
42	9	3		8	2	-1		7	1	-2	
43	9	3		9	4	0		8	2	-1	
44	13	18	e	12	15	-1	e	12	14	-1	e
45	11	10		11	10	0		10	6	-1	
46	11	10		10	7	-1		11	10	0	
47	9	4		8	2	-1		9	3	0	
48	11	10		11	10	0		10	7	-1	
49	9	5		9	4	0		10	5	1	
50	12	15	e	11	10	-1		11	10	-1	
51	9	4		9	3	0		8	2	-1	
52	10	8		10	5	0		8	2	-2	
53	11	10		11	10	0		10	8	-1	
54	8	2		9	3	1		9	3	1	
55	7	1		7	2	0		7	1	0	
56	8	1		8	1	0		8	3	0	
57	9	3		9	3	0		12	12	3	e
58	10	5		9	5	-1		9	5	-1	
59	9	3		9	2	0		9	3	0	
60	10	5		10	5	0		13	19	3	e
61	9	3		9	3	0		12	15	3	e
62	9	4		10	5	1		14	26	5	e



CONSULTING ENGINEERS  
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**Table 2:** Wind Comfort Results

Summary of Comfort Results:

	Existing			Existing + Project				Project + Cumulative			
	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph	Exceeds	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph	Speed Change Relative to Existing (mph)	Exceeds	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph	Speed Change Relative to Existing (mph)	Exceeds
Average speed, Average % , Exceedances, and Total exceedances	9.4 mph	6%	6 of 62	9.8 mph	7%	0.4 mph	10 of 62	10.3 mph	9%	0.9 mph	19 of 62

# APPENDIX A



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## **APPENDIX A: DRAWING LIST FOR MODEL CONSTRUCTION**

The drawings and information listed below were received from Urban Planning Partners and were used to construct the scale model of the proposed 2015 Telegraph. Should there be any design changes that deviate from this list of drawings, the results may change. Therefore, if changes in the design are made, it is recommended that RWDI be contacted and requested to review their potential effects on wind conditions.

<b>File Name</b>	<b>File Type</b>	<b>Date Received (dd/mm/yyyy)</b>
16-118 2015 telegraph_3d.dwg	AutoCAD drawing	08/05/2016
16-118 2015-2016 telegraph combined.pdf	PDF	08/05/2016

## **Attachment G: Air Quality and Health Risk Screening Analysis**



2016 Telegraph Avenue Project (Parcel 8) - Alameda County, Annual

**2016 Telegraph Avenue Project (Parcel 8)**  
**Alameda County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	90.00	Space	0.00	10,718.00	0
High Turnover (Sit Down Restaurant)	5.30	1000sqft	0.00	5,304.00	11
Apartments High Rise	230.00	Dwelling Unit	0.47	184,595.00	573

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	63
<b>Climate Zone</b>	5			<b>Operational Year</b>	2019
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	427	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

2016 Telegraph Avenue Project (Parcel 8) - Alameda County, Annual

Project Characteristics - PG&E's default 2008 CO2 intensity factor updated to the most recent (2013) emission factor verified by a 3rd party in PG&E's (2015) Greenhouse Gas Emission Factors: Guidance for PG&E Customers.

Land Use - Square footage updated based on project design. Non-residential acreage zeroed out for mixed-use development. Population based on 2.49 persons/household (2015-2023 Housing Element, 2010 US Census Data) and standard assumption of 1 employee/500SF.

Construction Phase - According to project sponsor, construction expected to last 26 months. There would be no site preparation.

Trips and VMT -

Demolition - Parking lot demo assumption: (Area of parking lot)(Depth of asphalt)(Density asphalt)=(20,814SF)(0.25 ft)(0.0725 tons/ft^3) =377 tons

Grading - Material Export number in communication email. 3000 cubic yard

Vehicle Trips - Weekday trip rates adjusted based on Fehr & Peers (2016) traffic analysis. RWkDy=3.8 RSat=2.83 RSun=2.08 CWkDy=72.5 CSat=90.27 CSun=75.15

Weekend trip rates reduced by 43% of default based on the City of Oakland's Transportation Impact Study Guidelines.

Woodstoves - Assume all zeros for woodstoves and fireplaces.

Energy Use - PG&E's default 2008 CO2 intensity factor updated to the most recent (2013) emission factor verified by a 3rd party in PG&E's (2015) Greenhouse Gas Emission Factors: Guidance for PG&E Customers.

Water And Wastewater - EBMUD would service the proposed project and applies 100 percent aerobic process and 100 percent cogeneration.

Construction Off-road Equipment Mitigation - SCA-AIR-1 (#19) Enhanced Controls require use of Tier 4 engines. These emission reductions are considered part of the project's unmitigated emissions.

Water Mitigation - CALGreen Code mandatory requirement. These emission reductions are considered part of the project's unmitigated emissions.

Stationary Sources - Emergency Generators and Fire Pumps - Emergency Generators and Fire Pumps - Emergency generator for elevator. Limited to 50 hours of testing/maintenance per year. Assume maximum 1 hour operation/test day.

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00



2016 Telegraph Avenue Project (Parcel 8) - Alameda County, Annual

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	5.00	15.00
tblConstructionPhase	NumDays	100.00	490.00
tblConstructionPhase	NumDays	10.00	15.00
tblConstructionPhase	NumDays	2.00	30.00
tblConstructionPhase	NumDays	5.00	15.00
tblConstructionPhase	PhaseEndDate	8/2/2019	7/31/2019
tblConstructionPhase	PhaseEndDate	6/21/2019	6/19/2019
tblConstructionPhase	PhaseEndDate	7/12/2017	6/21/2017
tblConstructionPhase	PhaseEndDate	8/23/2017	8/2/2017
tblConstructionPhase	PhaseEndDate	7/12/2019	7/10/2019
tblConstructionPhase	PhaseStartDate	7/13/2019	7/11/2019
tblConstructionPhase	PhaseStartDate	8/24/2017	8/3/2017
tblConstructionPhase	PhaseStartDate	7/13/2017	6/22/2017
tblConstructionPhase	PhaseStartDate	6/22/2019	6/20/2019
tblFireplaces	NumberGas	34.50	0.00
tblFireplaces	NumberNoFireplace	9.20	0.00
tblFireplaces	NumberWood	39.10	0.00
tblGrading	MaterialExported	0.00	3,000.00

2016 Telegraph Avenue Project (Parcel 8) - Alameda County, Annual

tblLandUse	BuildingSpaceSquareFeet	36,000.00	10,718.00
tblLandUse	BuildingSpaceSquareFeet	5,300.00	5,304.00
tblLandUse	BuildingSpaceSquareFeet	230,000.00	184,595.00
tblLandUse	LandUseSquareFeet	36,000.00	10,718.00
tblLandUse	LandUseSquareFeet	5,300.00	5,304.00
tblLandUse	LandUseSquareFeet	230,000.00	184,595.00
tblLandUse	LotAcreage	0.81	0.00
tblLandUse	LotAcreage	0.12	0.00
tblLandUse	LotAcreage	3.71	0.47
tblLandUse	Population	0.00	11.00
tblLandUse	Population	658.00	573.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	427
tblProjectCharacteristics	OperationalYear	2018	2019
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	1,000.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	1.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblVehicleTrips	ST_TR	4.98	2.83
tblVehicleTrips	ST_TR	158.37	90.27
tblVehicleTrips	SU_TR	3.65	2.08
tblVehicleTrips	SU_TR	131.84	75.15
tblVehicleTrips	WD_TR	4.20	3.80
tblVehicleTrips	WD_TR	127.15	72.50
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaDigestCogenCombDigestGasPercent	0.00	100.00

## 2016 Telegraph Avenue Project (Parcel 8) - Alameda County, Annual

tblWater	AnaDigestCogenCombDigestGasPercent	0.00	100.00
tblWater	AnaDigestCogenCombDigestGasPercent	0.00	100.00
tblWater	AnaDigestCombDigestGasPercent	100.00	0.00
tblWater	AnaDigestCombDigestGasPercent	100.00	0.00
tblWater	AnaDigestCombDigestGasPercent	100.00	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWoodstoves	NumberCatalytic	4.60	0.00
tblWoodstoves	NumberNoncatalytic	4.60	0.00

## 2.0 Emissions Summary

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2016 Telegraph Avenue Project (Parcel 8) - Alameda County, Annual

**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.1507	1.2344	1.0249	2.2600e-003	0.1030	0.0651	0.1681	0.0304	0.0606	0.0909	0.0000	208.1224	208.1224	0.0282	0.0000	208.8264
2018	0.2531	1.9884	1.8570	4.3300e-003	0.2006	0.0972	0.2978	0.0539	0.0895	0.1434	0.0000	397.9383	397.9383	0.0536	0.0000	399.2773
2019	1.4446	0.9137	0.8915	2.1300e-003	0.0969	0.0432	0.1400	0.0260	0.0399	0.0659	0.0000	194.2958	194.2958	0.0269	0.0000	194.9686
<b>Maximum</b>	<b>1.4446</b>	<b>1.9884</b>	<b>1.8570</b>	<b>4.3300e-003</b>	<b>0.2006</b>	<b>0.0972</b>	<b>0.2978</b>	<b>0.0539</b>	<b>0.0895</b>	<b>0.1434</b>	<b>0.0000</b>	<b>397.9383</b>	<b>397.9383</b>	<b>0.0536</b>	<b>0.0000</b>	<b>399.2773</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0654	0.3609	1.0050	2.2600e-003	0.1030	4.1000e-003	0.1071	0.0304	3.9700e-003	0.0343	0.0000	208.1223	208.1223	0.0282	0.0000	208.8263
2018	0.1298	0.6278	1.8537	4.3300e-003	0.2006	7.1100e-003	0.2077	0.0539	6.8700e-003	0.0608	0.0000	397.9381	397.9381	0.0536	0.0000	399.2772
2019	1.3875	0.2836	0.9008	2.1300e-003	0.0969	3.2400e-003	0.1001	0.0260	3.1300e-003	0.0292	0.0000	194.2957	194.2957	0.0269	0.0000	194.9685
<b>Maximum</b>	<b>1.3875</b>	<b>0.6278</b>	<b>1.8537</b>	<b>4.3300e-003</b>	<b>0.2006</b>	<b>7.1100e-003</b>	<b>0.2077</b>	<b>0.0539</b>	<b>6.8700e-003</b>	<b>0.0608</b>	<b>0.0000</b>	<b>397.9381</b>	<b>397.9381</b>	<b>0.0536</b>	<b>0.0000</b>	<b>399.2772</b>

## 2016 Telegraph Avenue Project (Parcel 8) - Alameda County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	14.37	69.24	0.37	0.00	0.00	92.97	31.52	0.00	92.65	58.61	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-1-2017	8-31-2017	0.5400	0.1548
2	9-1-2017	11-30-2017	0.6370	0.2049
3	12-1-2017	2-28-2018	0.5826	0.1958
4	3-1-2018	5-31-2018	0.5641	0.1905
5	6-1-2018	8-31-2018	0.5618	0.1882
6	9-1-2018	11-30-2018	0.5603	0.1907
7	12-1-2018	2-28-2019	0.5207	0.1834
8	3-1-2019	5-31-2019	0.5091	0.1794
9	6-1-2019	8-31-2019	1.5174	1.3742
		Highest	1.5174	1.3742

2016 Telegraph Avenue Project (Parcel 8) - Alameda County, Annual

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9279	0.0199	1.7171	9.0000e-005		9.4100e-003	9.4100e-003		9.4100e-003	9.4100e-003	0.0000	2.7913	2.7913	2.7400e-003	0.0000	2.8599
Energy	0.0190	0.1650	0.0883	1.0400e-003		0.0131	0.0131		0.0131	0.0131	0.0000	433.4465	433.4465	0.0203	6.9000e-003	436.0082
Mobile	0.3849	2.3342	3.9709	0.0120	0.8523	0.0168	0.8691	0.2292	0.0159	0.2450	0.0000	1,106.2196	1,106.2196	0.0570	0.0000	1,107.6443
Stationary	0.0410	0.1835	0.1046	2.0000e-004		6.0400e-003	6.0400e-003		6.0400e-003	6.0400e-003	0.0000	19.0399	19.0399	2.6700e-003	0.0000	19.1066
Waste						0.0000	0.0000		0.0000	0.0000	34.2791	0.0000	34.2791	2.0258	0.0000	84.9250
Water						0.0000	0.0000		0.0000	0.0000	5.8710	22.2451	28.1161	0.0217	0.0131	32.5570
<b>Total</b>	<b>1.3728</b>	<b>2.7025</b>	<b>5.8809</b>	<b>0.0134</b>	<b>0.8523</b>	<b>0.0454</b>	<b>0.8977</b>	<b>0.2292</b>	<b>0.0444</b>	<b>0.2736</b>	<b>40.1501</b>	<b>1,583.7424</b>	<b>1,623.8925</b>	<b>2.1302</b>	<b>0.0200</b>	<b>1,683.1010</b>

2016 Telegraph Avenue Project (Parcel 8) - Alameda County, Annual

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9279	0.0199	1.7171	9.0000e-005		9.4100e-003	9.4100e-003		9.4100e-003	9.4100e-003	0.0000	2.7913	2.7913	2.7400e-003	0.0000	2.8599
Energy	0.0190	0.1650	0.0883	1.0400e-003		0.0131	0.0131		0.0131	0.0131	0.0000	433.4465	433.4465	0.0203	6.9000e-003	436.0082
Mobile	0.3849	2.3342	3.9709	0.0120	0.8523	0.0168	0.8691	0.2292	0.0159	0.2450	0.0000	1,106.2196	1,106.2196	0.0570	0.0000	1,107.6443
Stationary	0.0410	0.1835	0.1046	2.0000e-004		6.0400e-003	6.0400e-003		6.0400e-003	6.0400e-003	0.0000	19.0399	19.0399	2.6700e-003	0.0000	19.1066
Waste						0.0000	0.0000		0.0000	0.0000	34.2791	0.0000	34.2791	2.0258	0.0000	84.9250
Water						0.0000	0.0000		0.0000	0.0000	4.6968	19.0909	23.7877	0.0175	0.0105	27.3480
<b>Total</b>	<b>1.3728</b>	<b>2.7025</b>	<b>5.8809</b>	<b>0.0134</b>	<b>0.8523</b>	<b>0.0454</b>	<b>0.8977</b>	<b>0.2292</b>	<b>0.0444</b>	<b>0.2736</b>	<b>38.9759</b>	<b>1,580.5882</b>	<b>1,619.5641</b>	<b>2.1260</b>	<b>0.0174</b>	<b>1,677.8920</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>2.92</b>	<b>0.20</b>	<b>0.27</b>	<b>0.20</b>	<b>13.01</b>	<b>0.31</b>

**3.0 Construction Detail**

**Construction Phase**

2016 Telegraph Avenue Project (Parcel 8) - Alameda County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2017	6/21/2017	5	15	
2	Grading	Grading	6/22/2017	8/2/2017	5	30	
3	Building Construction	Building Construction	8/3/2017	6/19/2019	5	490	
4	Paving	Paving	6/20/2019	7/10/2019	5	15	
5	Architectural Coating	Architectural Coating	7/11/2019	7/31/2019	5	15	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 373,805; Residential Outdoor: 124,602; Non-Residential Indoor: 7,956; Non-Residential Outdoor: 2,652; Striped Parking Area: 643 (Architectural Coating – sqft)**

**OffRoad Equipment**



2016 Telegraph Avenue Project (Parcel 8) - Alameda County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	37.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	375.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	172.00	27.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	34.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

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Use Cleaner Engines for Construction Equipment

Clean Paved Roads

**3.2 Demolition - 2017**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.0300e-003	0.0000	4.0300e-003	6.1000e-004	0.0000	6.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0700e-003	0.0787	0.0594	9.0000e-005		5.4900e-003	5.4900e-003		5.2300e-003	5.2300e-003	0.0000	8.0239	8.0239	1.5800e-003	0.0000	8.0633
<b>Total</b>	<b>9.0700e-003</b>	<b>0.0787</b>	<b>0.0594</b>	<b>9.0000e-005</b>	<b>4.0300e-003</b>	<b>5.4900e-003</b>	<b>9.5200e-003</b>	<b>6.1000e-004</b>	<b>5.2300e-003</b>	<b>5.8400e-003</b>	<b>0.0000</b>	<b>8.0239</b>	<b>8.0239</b>	<b>1.5800e-003</b>	<b>0.0000</b>	<b>8.0633</b>

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**3.2 Demolition - 2017**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-004	6.5300e-003	1.0800e-003	2.0000e-005	3.1000e-004	3.0000e-005	3.5000e-004	9.0000e-005	3.0000e-005	1.2000e-004	0.0000	1.4572	1.4572	8.0000e-005	0.0000	1.4592
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	2.8000e-004	2.8100e-003	1.0000e-005	5.9000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5759	0.5759	2.0000e-005	0.0000	0.5764
<b>Total</b>	<b>5.5000e-004</b>	<b>6.8100e-003</b>	<b>3.8900e-003</b>	<b>3.0000e-005</b>	<b>9.0000e-004</b>	<b>3.0000e-005</b>	<b>9.5000e-004</b>	<b>2.5000e-004</b>	<b>3.0000e-005</b>	<b>2.8000e-004</b>	<b>0.0000</b>	<b>2.0331</b>	<b>2.0331</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>2.0356</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.0300e-003	0.0000	4.0300e-003	6.1000e-004	0.0000	6.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.9000e-004	4.3100e-003	0.0589	9.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	8.0239	8.0239	1.5800e-003	0.0000	8.0633
<b>Total</b>	<b>9.9000e-004</b>	<b>4.3100e-003</b>	<b>0.0589</b>	<b>9.0000e-005</b>	<b>4.0300e-003</b>	<b>1.3000e-004</b>	<b>4.1600e-003</b>	<b>6.1000e-004</b>	<b>1.3000e-004</b>	<b>7.4000e-004</b>	<b>0.0000</b>	<b>8.0239</b>	<b>8.0239</b>	<b>1.5800e-003</b>	<b>0.0000</b>	<b>8.0633</b>

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**3.2 Demolition - 2017**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-004	6.5300e-003	1.0800e-003	2.0000e-005	3.1000e-004	3.0000e-005	3.5000e-004	9.0000e-005	3.0000e-005	1.2000e-004	0.0000	1.4572	1.4572	8.0000e-005	0.0000	1.4592
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	2.8000e-004	2.8100e-003	1.0000e-005	5.9000e-004	0.0000	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5759	0.5759	2.0000e-005	0.0000	0.5764
<b>Total</b>	<b>5.5000e-004</b>	<b>6.8100e-003</b>	<b>3.8900e-003</b>	<b>3.0000e-005</b>	<b>9.0000e-004</b>	<b>3.0000e-005</b>	<b>9.5000e-004</b>	<b>2.5000e-004</b>	<b>3.0000e-005</b>	<b>2.8000e-004</b>	<b>0.0000</b>	<b>2.0331</b>	<b>2.0331</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>2.0356</b>

**3.3 Grading - 2017**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0115	0.0000	0.0115	6.2300e-003	0.0000	6.2300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0182	0.1575	0.1188	1.8000e-004		0.0110	0.0110		0.0105	0.0105	0.0000	16.0478	16.0478	3.1600e-003	0.0000	16.1266
<b>Total</b>	<b>0.0182</b>	<b>0.1575</b>	<b>0.1188</b>	<b>1.8000e-004</b>	<b>0.0115</b>	<b>0.0110</b>	<b>0.0224</b>	<b>6.2300e-003</b>	<b>0.0105</b>	<b>0.0167</b>	<b>0.0000</b>	<b>16.0478</b>	<b>16.0478</b>	<b>3.1600e-003</b>	<b>0.0000</b>	<b>16.1266</b>

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**3.3 Grading - 2017**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0600e-003	0.0662	0.0109	1.5000e-004	3.1800e-003	3.5000e-004	3.5200e-003	8.7000e-004	3.3000e-004	1.2100e-003	0.0000	14.7689	14.7689	8.1000e-004	0.0000	14.7892
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.1000e-004	5.7000e-004	5.6300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.1517	1.1517	4.0000e-005	0.0000	1.1527
<b>Total</b>	<b>2.7700e-003</b>	<b>0.0667</b>	<b>0.0166</b>	<b>1.6000e-004</b>	<b>4.3700e-003</b>	<b>3.6000e-004</b>	<b>4.7100e-003</b>	<b>1.1900e-003</b>	<b>3.4000e-004</b>	<b>1.5300e-003</b>	<b>0.0000</b>	<b>15.9206</b>	<b>15.9206</b>	<b>8.5000e-004</b>	<b>0.0000</b>	<b>15.9420</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0115	0.0000	0.0115	6.2300e-003	0.0000	6.2300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9900e-003	8.6200e-003	0.1178	1.8000e-004		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	16.0477	16.0477	3.1600e-003	0.0000	16.1266
<b>Total</b>	<b>1.9900e-003</b>	<b>8.6200e-003</b>	<b>0.1178</b>	<b>1.8000e-004</b>	<b>0.0115</b>	<b>2.7000e-004</b>	<b>0.0117</b>	<b>6.2300e-003</b>	<b>2.7000e-004</b>	<b>6.5000e-003</b>	<b>0.0000</b>	<b>16.0477</b>	<b>16.0477</b>	<b>3.1600e-003</b>	<b>0.0000</b>	<b>16.1266</b>

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**3.3 Grading - 2017**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0600e-003	0.0662	0.0109	1.5000e-004	3.1800e-003	3.5000e-004	3.5200e-003	8.7000e-004	3.3000e-004	1.2100e-003	0.0000	14.7689	14.7689	8.1000e-004	0.0000	14.7892
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.1000e-004	5.7000e-004	5.6300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	1.1517	1.1517	4.0000e-005	0.0000	1.1527
<b>Total</b>	<b>2.7700e-003</b>	<b>0.0667</b>	<b>0.0166</b>	<b>1.6000e-004</b>	<b>4.3700e-003</b>	<b>3.6000e-004</b>	<b>4.7100e-003</b>	<b>1.1900e-003</b>	<b>3.4000e-004</b>	<b>1.5300e-003</b>	<b>0.0000</b>	<b>15.9206</b>	<b>15.9206</b>	<b>8.5000e-004</b>	<b>0.0000</b>	<b>15.9420</b>

**3.4 Building Construction - 2017**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0685	0.6826	0.4317	6.1000e-004		0.0460	0.0460		0.0423	0.0423	0.0000	56.5870	56.5870	0.0173	0.0000	57.0205
<b>Total</b>	<b>0.0685</b>	<b>0.6826</b>	<b>0.4317</b>	<b>6.1000e-004</b>		<b>0.0460</b>	<b>0.0460</b>		<b>0.0423</b>	<b>0.0423</b>	<b>0.0000</b>	<b>56.5870</b>	<b>56.5870</b>	<b>0.0173</b>	<b>0.0000</b>	<b>57.0205</b>

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**3.4 Building Construction - 2017**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.1900e-003	0.2072	0.0494	4.1000e-004	9.4900e-003	1.7600e-003	0.0113	2.7400e-003	1.6800e-003	4.4300e-003	0.0000	38.8551	38.8551	2.6700e-003	0.0000	38.9218
Worker	0.0434	0.0348	0.3452	7.8000e-004	0.0728	5.5000e-004	0.0733	0.0194	5.1000e-004	0.0199	0.0000	70.6550	70.6550	2.4700e-003	0.0000	70.7166
<b>Total</b>	<b>0.0516</b>	<b>0.2420</b>	<b>0.3945</b>	<b>1.1900e-003</b>	<b>0.0823</b>	<b>2.3100e-003</b>	<b>0.0846</b>	<b>0.0221</b>	<b>2.1900e-003</b>	<b>0.0243</b>	<b>0.0000</b>	<b>109.5100</b>	<b>109.5100</b>	<b>5.1400e-003</b>	<b>0.0000</b>	<b>109.6384</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.4700e-003	0.0324	0.4134	6.1000e-004		1.0000e-003	1.0000e-003		1.0000e-003	1.0000e-003	0.0000	56.5870	56.5870	0.0173	0.0000	57.0204
<b>Total</b>	<b>7.4700e-003</b>	<b>0.0324</b>	<b>0.4134</b>	<b>6.1000e-004</b>		<b>1.0000e-003</b>	<b>1.0000e-003</b>		<b>1.0000e-003</b>	<b>1.0000e-003</b>	<b>0.0000</b>	<b>56.5870</b>	<b>56.5870</b>	<b>0.0173</b>	<b>0.0000</b>	<b>57.0204</b>

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**3.4 Building Construction - 2017**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.1900e-003	0.2072	0.0494	4.1000e-004	9.4900e-003	1.7600e-003	0.0113	2.7400e-003	1.6800e-003	4.4300e-003	0.0000	38.8551	38.8551	2.6700e-003	0.0000	38.9218
Worker	0.0434	0.0348	0.3452	7.8000e-004	0.0728	5.5000e-004	0.0733	0.0194	5.1000e-004	0.0199	0.0000	70.6550	70.6550	2.4700e-003	0.0000	70.7166
<b>Total</b>	<b>0.0516</b>	<b>0.2420</b>	<b>0.3945</b>	<b>1.1900e-003</b>	<b>0.0823</b>	<b>2.3100e-003</b>	<b>0.0846</b>	<b>0.0221</b>	<b>2.1900e-003</b>	<b>0.0243</b>	<b>0.0000</b>	<b>109.5100</b>	<b>109.5100</b>	<b>5.1400e-003</b>	<b>0.0000</b>	<b>109.6384</b>

**3.4 Building Construction - 2018**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1416	1.4396	1.0115	1.4900e-003		0.0925	0.0925		0.0851	0.0851	0.0000	135.7352	135.7352	0.0423	0.0000	136.7916
<b>Total</b>	<b>0.1416</b>	<b>1.4396</b>	<b>1.0115</b>	<b>1.4900e-003</b>		<b>0.0925</b>	<b>0.0925</b>		<b>0.0851</b>	<b>0.0851</b>	<b>0.0000</b>	<b>135.7352</b>	<b>135.7352</b>	<b>0.0423</b>	<b>0.0000</b>	<b>136.7916</b>



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**3.4 Building Construction - 2018**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0175	0.4750	0.1085	9.9000e-004	0.0231	3.3900e-003	0.0265	6.6900e-003	3.2400e-003	9.9400e-003	0.0000	94.5004	94.5004	6.0500e-003	0.0000	94.6516
Worker	0.0941	0.0739	0.7370	1.8600e-003	0.1775	1.3000e-003	0.1788	0.0472	1.1900e-003	0.0484	0.0000	167.7027	167.7027	5.2600e-003	0.0000	167.8342
<b>Total</b>	<b>0.1116</b>	<b>0.5488</b>	<b>0.8455</b>	<b>2.8500e-003</b>	<b>0.2006</b>	<b>4.6900e-003</b>	<b>0.2053</b>	<b>0.0539</b>	<b>4.4300e-003</b>	<b>0.0584</b>	<b>0.0000</b>	<b>262.2030</b>	<b>262.2030</b>	<b>0.0113</b>	<b>0.0000</b>	<b>262.4857</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0182	0.0790	1.0083	1.4900e-003		2.4300e-003	2.4300e-003		2.4300e-003	2.4300e-003	0.0000	135.7351	135.7351	0.0423	0.0000	136.7915
<b>Total</b>	<b>0.0182</b>	<b>0.0790</b>	<b>1.0083</b>	<b>1.4900e-003</b>		<b>2.4300e-003</b>	<b>2.4300e-003</b>		<b>2.4300e-003</b>	<b>2.4300e-003</b>	<b>0.0000</b>	<b>135.7351</b>	<b>135.7351</b>	<b>0.0423</b>	<b>0.0000</b>	<b>136.7915</b>

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**3.4 Building Construction - 2018**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0175	0.4750	0.1085	9.9000e-004	0.0231	3.3900e-003	0.0265	6.6900e-003	3.2400e-003	9.9400e-003	0.0000	94.5004	94.5004	6.0500e-003	0.0000	94.6516
Worker	0.0941	0.0739	0.7370	1.8600e-003	0.1775	1.3000e-003	0.1788	0.0472	1.1900e-003	0.0484	0.0000	167.7027	167.7027	5.2600e-003	0.0000	167.8342
<b>Total</b>	<b>0.1116</b>	<b>0.5488</b>	<b>0.8455</b>	<b>2.8500e-003</b>	<b>0.2006</b>	<b>4.6900e-003</b>	<b>0.2053</b>	<b>0.0539</b>	<b>4.4300e-003</b>	<b>0.0584</b>	<b>0.0000</b>	<b>262.2030</b>	<b>262.2030</b>	<b>0.0113</b>	<b>0.0000</b>	<b>262.4857</b>

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0584	0.5991	0.4601	6.9000e-004		0.0369	0.0369		0.0340	0.0340	0.0000	62.4033	62.4033	0.0197	0.0000	62.8969
<b>Total</b>	<b>0.0584</b>	<b>0.5991</b>	<b>0.4601</b>	<b>6.9000e-004</b>		<b>0.0369</b>	<b>0.0369</b>		<b>0.0340</b>	<b>0.0340</b>	<b>0.0000</b>	<b>62.4033</b>	<b>62.4033</b>	<b>0.0197</b>	<b>0.0000</b>	<b>62.8969</b>

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**3.4 Building Construction - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.4200e-003	0.2106	0.0466	4.6000e-004	0.0108	1.3500e-003	0.0122	3.1300e-003	1.2900e-003	4.4200e-003	0.0000	43.8720	43.8720	2.7000e-003	0.0000	43.9395
Worker	0.0397	0.0303	0.3060	8.4000e-004	0.0830	5.9000e-004	0.0836	0.0221	5.4000e-004	0.0226	0.0000	76.0976	76.0976	2.1700e-003	0.0000	76.1519
<b>Total</b>	<b>0.0471</b>	<b>0.2409</b>	<b>0.3526</b>	<b>1.3000e-003</b>	<b>0.0938</b>	<b>1.9400e-003</b>	<b>0.0957</b>	<b>0.0252</b>	<b>1.8300e-003</b>	<b>0.0270</b>	<b>0.0000</b>	<b>119.9696</b>	<b>119.9696</b>	<b>4.8700e-003</b>	<b>0.0000</b>	<b>120.0914</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.5200e-003	0.0369	0.4713	6.9000e-004		1.1400e-003	1.1400e-003		1.1400e-003	1.1400e-003	0.0000	62.4032	62.4032	0.0197	0.0000	62.8968
<b>Total</b>	<b>8.5200e-003</b>	<b>0.0369</b>	<b>0.4713</b>	<b>6.9000e-004</b>		<b>1.1400e-003</b>	<b>1.1400e-003</b>		<b>1.1400e-003</b>	<b>1.1400e-003</b>	<b>0.0000</b>	<b>62.4032</b>	<b>62.4032</b>	<b>0.0197</b>	<b>0.0000</b>	<b>62.8968</b>

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**3.4 Building Construction - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.4200e-003	0.2106	0.0466	4.6000e-004	0.0108	1.3500e-003	0.0122	3.1300e-003	1.2900e-003	4.4200e-003	0.0000	43.8720	43.8720	2.7000e-003	0.0000	43.9395
Worker	0.0397	0.0303	0.3060	8.4000e-004	0.0830	5.9000e-004	0.0836	0.0221	5.4000e-004	0.0226	0.0000	76.0976	76.0976	2.1700e-003	0.0000	76.1519
<b>Total</b>	<b>0.0471</b>	<b>0.2409</b>	<b>0.3526</b>	<b>1.3000e-003</b>	<b>0.0938</b>	<b>1.9400e-003</b>	<b>0.0957</b>	<b>0.0252</b>	<b>1.8300e-003</b>	<b>0.0270</b>	<b>0.0000</b>	<b>119.9696</b>	<b>119.9696</b>	<b>4.8700e-003</b>	<b>0.0000</b>	<b>120.0914</b>

**3.5 Paving - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.2200e-003	0.0588	0.0536	8.0000e-005		3.3200e-003	3.3200e-003		3.0800e-003	3.0800e-003	0.0000	7.1793	7.1793	2.0500e-003	0.0000	7.2307
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>6.2200e-003</b>	<b>0.0588</b>	<b>0.0536</b>	<b>8.0000e-005</b>		<b>3.3200e-003</b>	<b>3.3200e-003</b>		<b>3.0800e-003</b>	<b>3.0800e-003</b>	<b>0.0000</b>	<b>7.1793</b>	<b>7.1793</b>	<b>2.0500e-003</b>	<b>0.0000</b>	<b>7.2307</b>

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**3.5 Paving - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.1000e-004	3.9000e-004	3.9400e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.9791	0.9791	3.0000e-005	0.0000	0.9798
<b>Total</b>	<b>5.1000e-004</b>	<b>3.9000e-004</b>	<b>3.9400e-003</b>	<b>1.0000e-005</b>	<b>1.0700e-003</b>	<b>1.0000e-005</b>	<b>1.0800e-003</b>	<b>2.8000e-004</b>	<b>1.0000e-005</b>	<b>2.9000e-004</b>	<b>0.0000</b>	<b>0.9791</b>	<b>0.9791</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.9798</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.4000e-004	3.6400e-003	0.0518	8.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	7.1793	7.1793	2.0500e-003	0.0000	7.2306
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>8.4000e-004</b>	<b>3.6400e-003</b>	<b>0.0518</b>	<b>8.0000e-005</b>		<b>1.1000e-004</b>	<b>1.1000e-004</b>		<b>1.1000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>7.1793</b>	<b>7.1793</b>	<b>2.0500e-003</b>	<b>0.0000</b>	<b>7.2306</b>

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**3.5 Paving - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.1000e-004	3.9000e-004	3.9400e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.9791	0.9791	3.0000e-005	0.0000	0.9798
<b>Total</b>	<b>5.1000e-004</b>	<b>3.9000e-004</b>	<b>3.9400e-003</b>	<b>1.0000e-005</b>	<b>1.0700e-003</b>	<b>1.0000e-005</b>	<b>1.0800e-003</b>	<b>2.8000e-004</b>	<b>1.0000e-005</b>	<b>2.9000e-004</b>	<b>0.0000</b>	<b>0.9791</b>	<b>0.9791</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.9798</b>

**3.6 Architectural Coating - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3293					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0000e-003	0.0138	0.0138	2.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	1.9149	1.9149	1.6000e-004	0.0000	1.9190
<b>Total</b>	<b>1.3313</b>	<b>0.0138</b>	<b>0.0138</b>	<b>2.0000e-005</b>		<b>9.7000e-004</b>	<b>9.7000e-004</b>		<b>9.7000e-004</b>	<b>9.7000e-004</b>	<b>0.0000</b>	<b>1.9149</b>	<b>1.9149</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>1.9190</b>

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**3.6 Architectural Coating - 2019**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	7.4000e-004	7.4400e-003	2.0000e-005	2.0200e-003	1.0000e-005	2.0300e-003	5.4000e-004	1.0000e-005	5.5000e-004	0.0000	1.8495	1.8495	5.0000e-005	0.0000	1.8508
<b>Total</b>	<b>9.7000e-004</b>	<b>7.4000e-004</b>	<b>7.4400e-003</b>	<b>2.0000e-005</b>	<b>2.0200e-003</b>	<b>1.0000e-005</b>	<b>2.0300e-003</b>	<b>5.4000e-004</b>	<b>1.0000e-005</b>	<b>5.5000e-004</b>	<b>0.0000</b>	<b>1.8495</b>	<b>1.8495</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.8508</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3293					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.2000e-004	9.7000e-004	0.0137	2.0000e-005		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	1.9149	1.9149	1.6000e-004	0.0000	1.9190
<b>Total</b>	<b>1.3296</b>	<b>9.7000e-004</b>	<b>0.0137</b>	<b>2.0000e-005</b>		<b>3.0000e-005</b>	<b>3.0000e-005</b>		<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>1.9149</b>	<b>1.9149</b>	<b>1.6000e-004</b>	<b>0.0000</b>	<b>1.9190</b>

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**3.6 Architectural Coating - 2019**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	7.4000e-004	7.4400e-003	2.0000e-005	2.0200e-003	1.0000e-005	2.0300e-003	5.4000e-004	1.0000e-005	5.5000e-004	0.0000	1.8495	1.8495	5.0000e-005	0.0000	1.8508
<b>Total</b>	<b>9.7000e-004</b>	<b>7.4000e-004</b>	<b>7.4400e-003</b>	<b>2.0000e-005</b>	<b>2.0200e-003</b>	<b>1.0000e-005</b>	<b>2.0300e-003</b>	<b>5.4000e-004</b>	<b>1.0000e-005</b>	<b>5.5000e-004</b>	<b>0.0000</b>	<b>1.8495</b>	<b>1.8495</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.8508</b>

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**



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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3849	2.3342	3.9709	0.0120	0.8523	0.0168	0.8691	0.2292	0.0159	0.2450	0.0000	1,106.2196	1,106.2196	0.0570	0.0000	1,107.6443
Unmitigated	0.3849	2.3342	3.9709	0.0120	0.8523	0.0168	0.8691	0.2292	0.0159	0.2450	0.0000	1,106.2196	1,106.2196	0.0570	0.0000	1,107.6443

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	874.00	650.90	478.40	1,814,460	1,814,460
Enclosed Parking with Elevator	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	384.25	478.43	398.30	463,770	463,770
<b>Total</b>	<b>1,258.25</b>	<b>1,129.33</b>	<b>876.70</b>	<b>2,278,231</b>	<b>2,278,231</b>

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
High Turnover (Sit Down)	9.50	7.30	7.30	8.50	72.50	19.00	37	20	43

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.556416	0.041967	0.190895	0.111485	0.018156	0.005234	0.022193	0.041963	0.002079	0.002948	0.005586	0.000300	0.000779
High Turnover (Sit Down Restaurant)	0.556416	0.041967	0.190895	0.111485	0.018156	0.005234	0.022193	0.041963	0.002079	0.002948	0.005586	0.000300	0.000779
Apartments High Rise	0.556416	0.041967	0.190895	0.111485	0.018156	0.005234	0.022193	0.041963	0.002079	0.002948	0.005586	0.000300	0.000779

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	245.4559	245.4559	0.0167	3.4500e-003	246.9004
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	245.4559	245.4559	0.0167	3.4500e-003	246.9004
NaturalGas Mitigated	0.0190	0.1650	0.0883	1.0400e-003		0.0131	0.0131		0.0131	0.0131	0.0000	187.9907	187.9907	3.6000e-003	3.4500e-003	189.1078
NaturalGas Unmitigated	0.0190	0.1650	0.0883	1.0400e-003		0.0131	0.0131		0.0131	0.0131	0.0000	187.9907	187.9907	3.6000e-003	3.4500e-003	189.1078

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**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	2.6311e+006	0.0142	0.1212	0.0516	7.7000e-004		9.8000e-003	9.8000e-003		9.8000e-003	9.8000e-003	0.0000	140.4057	140.4057	2.6900e-003	2.5700e-003	141.2401
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	891708	4.8100e-003	0.0437	0.0367	2.6000e-004		3.3200e-003	3.3200e-003		3.3200e-003	3.3200e-003	0.0000	47.5850	47.5850	9.1000e-004	8.7000e-004	47.8677
<b>Total</b>		<b>0.0190</b>	<b>0.1650</b>	<b>0.0883</b>	<b>1.0300e-003</b>		<b>0.0131</b>	<b>0.0131</b>		<b>0.0131</b>	<b>0.0131</b>	<b>0.0000</b>	<b>187.9907</b>	<b>187.9907</b>	<b>3.6000e-003</b>	<b>3.4400e-003</b>	<b>189.1078</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	2.6311e+006	0.0142	0.1212	0.0516	7.7000e-004		9.8000e-003	9.8000e-003		9.8000e-003	9.8000e-003	0.0000	140.4057	140.4057	2.6900e-003	2.5700e-003	141.2401
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	891708	4.8100e-003	0.0437	0.0367	2.6000e-004		3.3200e-003	3.3200e-003		3.3200e-003	3.3200e-003	0.0000	47.5850	47.5850	9.1000e-004	8.7000e-004	47.8677
<b>Total</b>		<b>0.0190</b>	<b>0.1650</b>	<b>0.0883</b>	<b>1.0300e-003</b>		<b>0.0131</b>	<b>0.0131</b>		<b>0.0131</b>	<b>0.0131</b>	<b>0.0000</b>	<b>187.9907</b>	<b>187.9907</b>	<b>3.6000e-003</b>	<b>3.4400e-003</b>	<b>189.1078</b>

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**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	1.03992e+006	201.4158	0.0137	2.8300e-003	202.6011
Enclosed Parking with Elevator	72239.3	13.9916	9.5000e-004	2.0000e-004	14.0739
High Turnover (Sit Down Restaurant)	155142	30.0485	2.0400e-003	4.2000e-004	30.2254
<b>Total</b>		<b>245.4559</b>	<b>0.0167</b>	<b>3.4500e-003</b>	<b>246.9004</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	1.03992e+006	201.4158	0.0137	2.8300e-003	202.6011
Enclosed Parking with Elevator	72239.3	13.9916	9.5000e-004	2.0000e-004	14.0739
High Turnover (Sit Down Restaurant)	155142	30.0485	2.0400e-003	4.2000e-004	30.2254
<b>Total</b>		<b>245.4559</b>	<b>0.0167</b>	<b>3.4500e-003</b>	<b>246.9004</b>

**6.0 Area Detail**

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**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.9279	0.0199	1.7171	9.0000e-005		9.4100e-003	9.4100e-003		9.4100e-003	9.4100e-003	0.0000	2.7913	2.7913	2.7400e-003	0.0000	2.8599
Unmitigated	0.9279	0.0199	1.7171	9.0000e-005		9.4100e-003	9.4100e-003		9.4100e-003	9.4100e-003	0.0000	2.7913	2.7913	2.7400e-003	0.0000	2.8599

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**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1329					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7423					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0526	0.0199	1.7171	9.0000e-005		9.4100e-003	9.4100e-003		9.4100e-003	9.4100e-003	0.0000	2.7913	2.7913	2.7400e-003	0.0000	2.8599
<b>Total</b>	<b>0.9279</b>	<b>0.0199</b>	<b>1.7171</b>	<b>9.0000e-005</b>		<b>9.4100e-003</b>	<b>9.4100e-003</b>		<b>9.4100e-003</b>	<b>9.4100e-003</b>	<b>0.0000</b>	<b>2.7913</b>	<b>2.7913</b>	<b>2.7400e-003</b>	<b>0.0000</b>	<b>2.8599</b>

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**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1329					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7423					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0526	0.0199	1.7171	9.0000e-005		9.4100e-003	9.4100e-003		9.4100e-003	9.4100e-003	0.0000	2.7913	2.7913	2.7400e-003	0.0000	2.8599
<b>Total</b>	<b>0.9279</b>	<b>0.0199</b>	<b>1.7171</b>	<b>9.0000e-005</b>		<b>9.4100e-003</b>	<b>9.4100e-003</b>		<b>9.4100e-003</b>	<b>9.4100e-003</b>	<b>0.0000</b>	<b>2.7913</b>	<b>2.7913</b>	<b>2.7400e-003</b>	<b>0.0000</b>	<b>2.8599</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

Apply Water Conservation Strategy

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	23.7877	0.0175	0.0105	27.3480
Unmitigated	28.1161	0.0217	0.0131	32.5570

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	14.9854 / 9.44733	25.9484	0.0197	0.0118	29.9620
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	1.60873 / 0.102685	2.1677	2.0700e-003	1.2600e-003	2.5950
<b>Total</b>		<b>28.1161</b>	<b>0.0217</b>	<b>0.0131</b>	<b>32.5570</b>



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**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	11.9883 / 9.44733	22.0396	0.0158	9.4700e-003	25.2580
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	1.28698 / 0.102685	1.7481	1.6600e-003	1.0100e-003	2.0900
<b>Total</b>		<b>23.7877</b>	<b>0.0175</b>	<b>0.0105</b>	<b>27.3480</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

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**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	34.2791	2.0258	0.0000	84.9250
Unmitigated	34.2791	2.0258	0.0000	84.9250

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	105.8	21.4764	1.2692	0.0000	53.2070
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	63.07	12.8026	0.7566	0.0000	31.7180
<b>Total</b>		<b>34.2791</b>	<b>2.0258</b>	<b>0.0000</b>	<b>84.9250</b>

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**8.2 Waste by Land Use**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	105.8	21.4764	1.2692	0.0000	53.2070
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	63.07	12.8026	0.7566	0.0000	31.7180
<b>Total</b>		<b>34.2791</b>	<b>2.0258</b>	<b>0.0000</b>	<b>84.9250</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	1	50	1000	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

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Equipment Type	Number
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**10.1 Stationary Sources**

**Unmitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (750 - 9999 HP)	0.0410	0.1835	0.1046	2.0000e-004		6.0400e-003	6.0400e-003		6.0400e-003	6.0400e-003	0.0000	19.0399	19.0399	2.6700e-003	0.0000	19.1066
<b>Total</b>	<b>0.0410</b>	<b>0.1835</b>	<b>0.1046</b>	<b>2.0000e-004</b>		<b>6.0400e-003</b>	<b>6.0400e-003</b>		<b>6.0400e-003</b>	<b>6.0400e-003</b>	<b>0.0000</b>	<b>19.0399</b>	<b>19.0399</b>	<b>2.6700e-003</b>	<b>0.0000</b>	<b>19.1066</b>

**11.0 Vegetation**

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**Summary of ISCST3 Model Parameters, Assumptions, and Results for DPM and PM<sub>2.5</sub> Emissions during Construction**

ISCST3 Model Parameters and Assumptions			
Source Type	Units	Value	Notes
<b>Volume Source: Off-Road Equipment Exhaust (without SCA-AIR-1)</b>			
Hours/Work Day	hours/day	8	Information from project sponsor
DPM Emission Rate	gram/second	0.01095	Exhaust PM <sub>10</sub> from off-road equipment
Number of Sources	count	17	SMAQMD, 2015
Emission Rate/Source	gram/second	0.00064	
Release Height	meters	5.0	SMAQMD, 2015
Length of Side	meters	10.0	SMAQMD, 2015
Initial Lateral Dimension	meters	2.3	ISCST3 Calculator
Initial Vertical Dimension	meters	1.0	SMAQMD, 2015
<b>Volume Source: Off-Road Equipment Exhaust (with SCA-AIR-1)</b>			
Hours/Work Day	hours/day	8	Information from project sponsor
DPM Emission Rate	gram/second	0.00077	Exhaust PM <sub>10</sub> from off-road equipment
Number of Sources	count	17	SMAQMD, 2015
Emission Rate/Source	gram/second	0.00005	
Release Height	meters	5.0	SMAQMD, 2015
Length of Side	meters	10.0	SMAQMD, 2015
Initial Lateral Dimension	meters	2.3	ISCST3 Calculator
Initial Vertical Dimension	meters	1.0	SMAQMD, 2015
ISCST3 Model Results			
Emissions Source	Pollutant	Annual Average Concentration	Notes
Off-Road Equipment (without SCA-AIR-1)	DPM ( $\mu\text{g}/\text{m}^3$ )	0.062	At maximum exposed individual resident (MEIR) location
	PM <sub>2.5</sub> ( $\mu\text{g}/\text{m}^3$ )	0.057	At maximum exposed individual resident (MEIR) location
Off-Road Equipment (with SCA-AIR-1)	DPM ( $\mu\text{g}/\text{m}^3$ )	0.004	At maximum exposed individual resident (MEIR) location
	PM <sub>2.5</sub> ( $\mu\text{g}/\text{m}^3$ )	0.004	At maximum exposed individual resident (MEIR) location

Notes:

DPM = diesel particulate matter

PM<sub>10</sub> = particulate matter with aerodynamic resistance diameters equal to or less than 10 microns

PM<sub>2.5</sub> = particulate matter with aerodynamic resistance diameters equal to or less than 2.5 microns

$\mu\text{g}/\text{m}^3$  = micrograms per cubic meter

Sacramento Metropolitan Air Quality Management District (SMAQMD), 2015. *Guide to Air Quality Assessment in Sacramento County*. June.

**Summary of Health Risk Assessment for DPM Emissions during Construction**

Health Risk Assessment Parameters and Results				
DPM Emissions without SCA-AIR-1				
Inhalation Cancer Risk Assessment for DPM	Units	Age Group		Notes
		3rd Trimester	0-2 Years	
DPM Concentration (C)	µg/m <sup>3</sup>	0.062	0.062	ISCST3 Annual Average
Daily Breathing Rate (DBR)	L/kg-day	361	1090	95th percentile under age of 2 (OEHHA, 2015)
Inhalation absorption factor (A)	unitless	1.0	1.0	OEHHA, 2015
Exposure Frequency (EF)	unitless	0.96	0.96	350 days/365 days in a year (OEHHA, 2015)
Dose Conversion Factor (CF <sub>D</sub> )	mg-m <sup>3</sup> /µg-L	0.000001	0.000001	Conversion of µg to mg and L to m <sup>3</sup>
Dose	mg/kg/day	0.000021	0.000065	C*DBR*A*EF*CF <sub>D</sub> (OEHHA, 2015)
Cancer Potency Factor (CPF)	(mg/kg/day) <sup>-1</sup>	1.1	1.1	OEHHA, 2015
Age Sensitivity Factor (ASF)	unitless	10	10	OEHHA, 2015
Annual Exposure Duration (ED)	years	0.25	2.00	Based on total construction period of 26 months
Averaging Time (AT)	years	70	70	70 years for residents (OEHHA, 2015)
Fraction of time at home (FAH)	unitless	0.85	0.85	OEHHA, 2015
Cancer Risk Conversion Factor (CF)	m <sup>3</sup> /L	1000000	1000000	Chances per million (OEHHA, 2015)
Cancer Risk	per million	0.72	17.31	D*CPF*ASF*ED/AT*FAH*CF (OEHHA, 2015)
Total Cancer Risk	per million	18.0		At MEIR location
Hazard Index for DPM	Units	Value	Notes	
Chronic REL	µg/m <sup>3</sup>	5.0	OEHHA, 2015	
Chronic Hazard Index for DPM	unitless	0.01	At MEIR location	
DPM Emissions with SCA-AIR-1				
Inhalation Cancer Risk Assessment for DPM	Units	Age Group		Notes
		3rd Trimester	0-2 Years	
DPM Concentration (C)	µg/m <sup>3</sup>	0.004	0.004	ISCST3 Annual Average
Daily Breathing Rate (DBR)	L/kg-day	361	1090	95th percentile under age of 2 (OEHHA, 2015)
Inhalation absorption factor (A)	unitless	1.0	1.0	OEHHA, 2015
Exposure Frequency (EF)	unitless	0.96	0.96	350 days/365 days in a year (OEHHA, 2015)
Dose Conversion Factor (CF <sub>D</sub> )	mg-m <sup>3</sup> /µg-L	0.000001	0.000001	Conversion of µg to mg and L to m <sup>3</sup>
Dose	mg/kg/day	0.000002	0.000005	C*DBR*A*EF*CF <sub>D</sub> (OEHHA, 2015)
Cancer Potency Factor (CPF)	(mg/kg/day) <sup>-1</sup>	1.1	1.1	OEHHA, 2015
Age Sensitivity Factor (ASF)	unitless	10	10	OEHHA, 2015
Annual Exposure Duration (ED)	years	0.25	2.00	Based on total construction period of 26 months
Averaging Time (AT)	years	70	70	70 years for residents (OEHHA, 2015)
Fraction of time at home (FAH)	unitless	0.85	0.85	OEHHA, 2015
Cancer Risk Conversion Factor (CF)	m <sup>3</sup> /L	1000000	1000000	Chances per million (OEHHA, 2015)
Cancer Risk	per million	0.05	1.22	D*CPF*ASF*ED/AT*FAH*CF (OEHHA, 2015)
Total Cancer Risk	per million	1.3		At MEIR location
Hazard Index for DPM	Units	Value	Notes	
Chronic REL	µg/m <sup>3</sup>	5.0	OEHHA, 2015	
Chronic Hazard Index for DPM	unitless	0.0009	At MEIR location	

Notes:

DPM = diesel particulate matter

REL = reference exposure level

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

L/kg-day = liters per kilogram-day

m<sup>3</sup>/L = cubic meters per liter

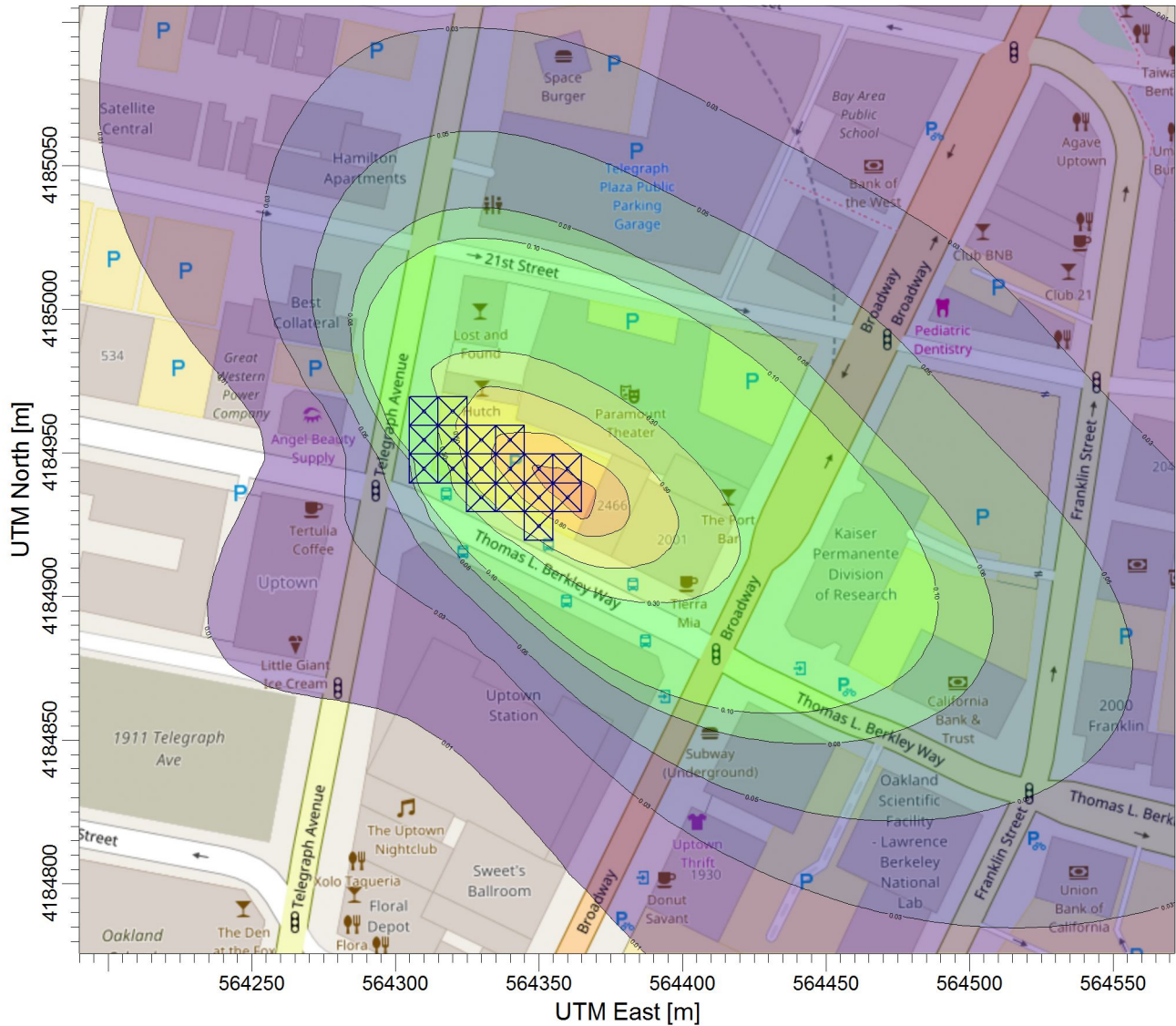
(mg/kg/day)<sup>-1</sup> = 1/milligrams per kilograms per day

MEIR = maximum exposed individual resident

Office of Environmental Health Hazard Assessment (OEHHA), 2015. *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*. February.

PROJECT TITLE:

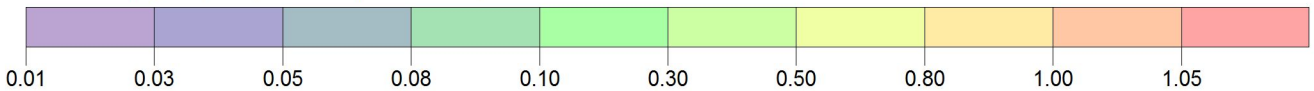
**2016 Telegraph Avenue Project (Parcel 8)**  
**DPM Concentrations during Construction without SCA-AIR-1**



PLOT FILE OF ANNUAL VALUES FOR SOURCE GROUP: ALL

ug/m<sup>3</sup>

Max: 1.05 [ug/m<sup>3</sup>] at (564364.81, 4184937.75)



COMMENTS:	SOURCES:	COMPANY NAME:	
	<b>17</b>	<b>BASELINE Environmental Consulting</b>	
	RECEPTORS:		
	<b>6561</b>		
OUTPUT TYPE:	SCALE:	1:2,401	
<b>Concentration</b>			
MAX:	DATE:	PROJECT NO.:	
<b>1.05 ug/m<sup>3</sup></b>	<b>11/21/2016</b>		





## Attachment H: Traffic Noise Outputs



\*\*\*\*\* CASE INFORMATION \*\*\*\*\*

\*\*\*\*\* Results calculated with TNM Version 2.5 \*\*\*\*\*

AM Peak Hour

\*\*\*\*\* TRAFFIC VOLUME/SPEED INFORMATION \*\*\*\*\*

Automobile volume (v/h):	100.0
Average automobile speed (mph):	30.0
Medium truck volume (v/h):	0.0
Average medium truck speed (mph):	0.0
Heavy truck volume (v/h):	0.0
Average heavy truck speed (mph):	0.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

\*\*\*\*\* TERRAIN SURFACE INFORMATION \*\*\*\*\*

Terrain surface: hard

\*\*\*\*\* RECEIVER INFORMATION \*\*\*\*\*

DESCRIPTION OF RECEIVER # 1

person

Distance from center of 12-ft wide, single lane roadway (ft): 50.0  
A-weighted Hourly Equivalent Sound Level without Barrier (dBA): 52.0

\*\*\*\*\* CASE INFORMATION \*\*\*\*\*

\*\*\*\*\* Results calculated with TNM Version 2.5 \*\*\*\*\*

PM Peak Hour

\*\*\*\*\* TRAFFIC VOLUME/SPEED INFORMATION \*\*\*\*\*

Automobile volume (v/h):	111.0
Average automobile speed (mph):	30.0
Medium truck volume (v/h):	0.0
Average medium truck speed (mph):	0.0
Heavy truck volume (v/h):	0.0
Average heavy truck speed (mph):	0.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

\*\*\*\*\* TERRAIN SURFACE INFORMATION \*\*\*\*\*

Terrain surface: hard

\*\*\*\*\* RECEIVER INFORMATION \*\*\*\*\*

DESCRIPTION OF RECEIVER # 1

person

Distance from center of 12-ft wide, single lane roadway (ft): 50.0  
A-weighted Hourly Equivalent Sound Level without Barrier (dBA): 52.4

**Attachment I: Proposed Project Traffic Counts**



# **Appendix I**

## Traffic Counts

### Telegraph Ave & 21st St

Date: 5/26/2016  
Day: Thursday

Project #: 16-7388-008

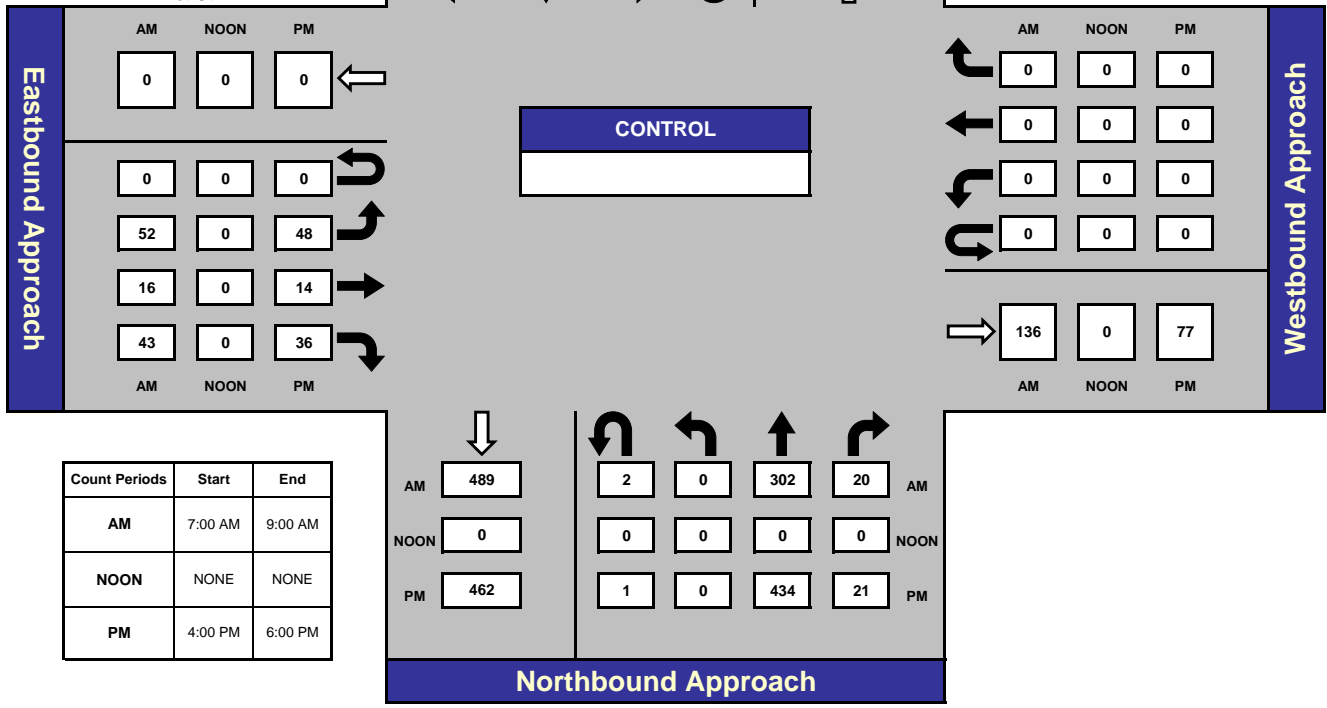


#### Peak Hour Summary

##### Southbound Approach

AM	0	444	100	0	354	AM
NOON	0	0	0	0	0	NOON
PM	0	425	42	4	486	PM

AM Peak Hour	08:00 - 09:00
NOON Peak Hour	
PM Peak Hour	17:00 - 18:00



Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	NONE	NONE
PM	4:00 PM	6:00 PM

#### Total Ins & Outs

			North Leg				
			544	354	AM		
			0	0	NOON		
			471	486	PM		
AM	NOON	PM	East Leg				
0	0	0	0	0	0		
111	0	98	136	0	77		
West Leg							
			489	324	AM		
			0	0	NOON		
			462	456	PM		
			South Leg				

#### Total Volume Per Leg

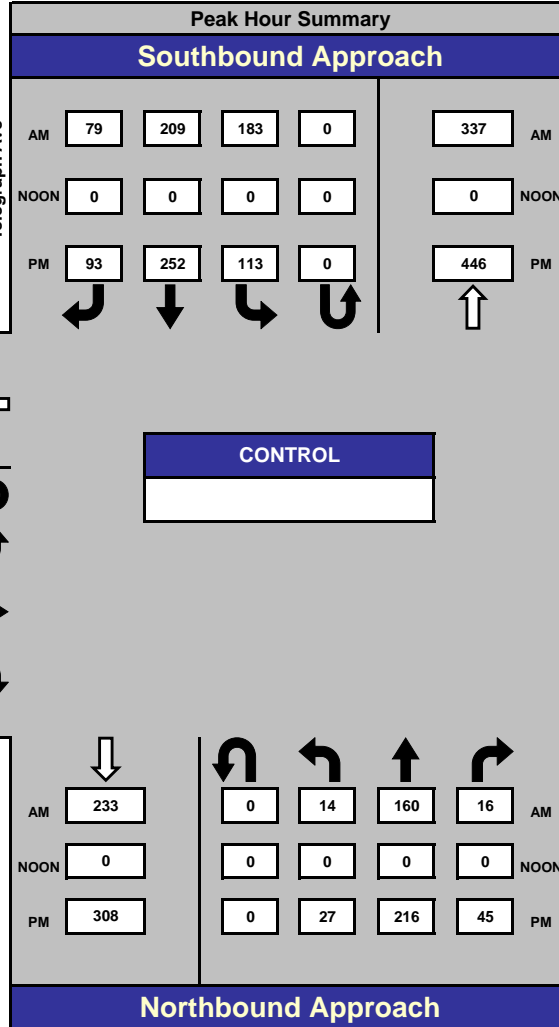
			North Leg				
			898		AM		
			0		NOON		
			957		PM		
AM	NOON	PM	East Leg				
111	0	98	136	0	77		
West Leg							
			813		AM		
			0		NOON		
			918		PM		
			South Leg				



# Telegraph Ave & Thomas L Berkley Way

Date: 5/26/2016  
 Day: Thursday

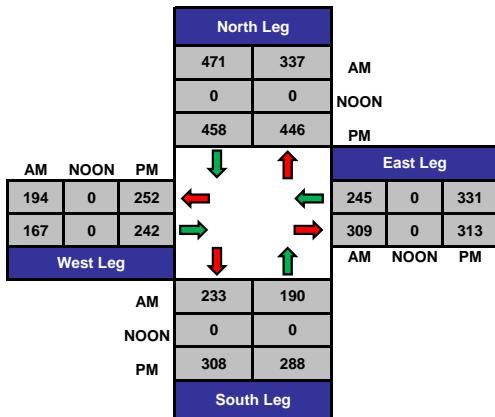
Project #: 16-7388-028



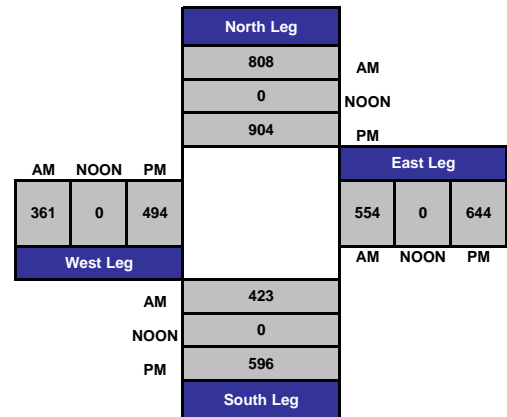
AM Peak Hour	08:00 - 09:00
NOON Peak Hour	
PM Peak Hour	17:00 - 18:00

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	NONE	NONE
PM	4:00 PM	6:00 PM

## Total Ins & Outs



## Total Volume Per Leg



### Broadway & 20th St

Date: 5/26/2016

Day: Thursday

Project #: 16-7388-009



#### Peak Hour Summary

##### Southbound Approach

Broadway	AM	48	353	36	0	391	AM		
	NOON	0	0	0	0			0	NOON
	PM	58	452	48	1			499	PM

AM Peak Hour	08:00 - 09:00
NOON Peak Hour	
PM Peak Hour	17:00 - 18:00

20th St

##### Eastbound Approach

AM	NOON	PM	←	
247	0	323		
0	0	1		↻
19	0	28		↻
227	0	189	→	
60	0	94	↻	
AM	NOON	PM		

CONTROL

##### Westbound Approach

AM	NOON	PM	↻	
76	0	56		
138	0	192		↻
36	0	54		↻
0	0	0	↻	
316	0	300	→	
AM	NOON	PM		

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	NONE	NONE
PM	4:00 PM	6:00 PM

##### Northbound Approach

Broadway	AM	449	0	61	296	53	AM	
	NOON	0	0	0	0	0		NOON
	PM	601	1	72	414	63		PM

#### Total Ins & Outs

			North Leg					
			437	391	AM			
			0	0	NOON			
			559	499	PM			
AM	NOON	PM	East Leg					
247	0	323	250	0	302			
306	0	312	316	0	300			
West Leg			South Leg					
			449	410	AM			
			0	0	NOON			
			601	550	PM			

#### Total Volume Per Leg

			North Leg					
			828		AM			
			0		NOON			
			1058		PM			
AM	NOON	PM	East Leg					
553	0	635	566	0	602			
West Leg			South Leg					
			859		AM			
			0		NOON			
			1151		PM			

# **Appendix B**

## LOS Calculations

**Intersection**

Int Delay, s/veh 3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4T						T		T	T	
Traffic Vol, veh/h	52	16	43	0	0	0	0	304	20	100	444	0
Future Vol, veh/h	52	16	43	0	0	0	0	304	20	100	444	0
Conflicting Peds, #/hr	22	0	30	30	0	22	81	0	97	97	0	81
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	120	-	-
Veh in Median Storage, #	-	0	-	-	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	52	16	43	0	0	0	0	304	20	100	444	0





















Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	980	1065	474	-	0	0	421	0	0
Stage 1	644	644	-	-	-	-	-	-	-
Stage 2	336	421	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	277	223	590	0	-	-	1138	-	0
Stage 1	523	468	-	0	-	-	-	-	0
Stage 2	724	589	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	252	0	573	-	-	-	1114	-	-
Mov Cap-2 Maneuver	252	0	-	-	-	-	-	-	-
Stage 1	476	0	-	-	-	-	-	-	-
Stage 2	724	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.3	0	1.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	252	573	1114	-
HCM Lane V/C Ratio	-	-	0.238	0.089	0.09	-
HCM Control Delay (s)	-	-	23.7	11.9	8.6	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	0.9	0.3	0.3	-

















HCM 2010 Signalized Intersection Summary  
 2: Telegraph Avenue & 20th Street

2016 Telegraph Ave  
 Existing Conditions AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	110	14	10	101	134	15	160	16	183	209	79
Future Volume (veh/h)	43	110	14	10	101	134	15	160	16	183	209	79
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.87		0.72	0.80		0.81	0.92		0.88	0.95		0.86
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1676	1676	1710	1710	1676	1676	1676	1676	1710	1676	1676	1710
Adj Flow Rate, veh/h	43	110	5	10	101	32	15	160	11	183	209	62
Adj No. of Lanes	1	1	0	0	1	1	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	405	528	24	83	534	391	448	551	38	557	630	187
Arrive On Green	0.34	0.34	0.33	0.33	0.34	0.34	0.12	0.12	0.12	0.10	0.53	0.52
Sat Flow, veh/h	980	1560	71	53	1579	1155	914	1535	106	1597	1193	354
Grp Volume(v), veh/h	43	0	115	111	0	32	15	0	171	183	0	271
Grp Sat Flow(s),veh/h/ln	980	0	1631	1632	0	1155	914	0	1641	1597	0	1546
Q Serve(g_s), s	2.0	0.0	3.0	0.0	0.0	1.1	0.9	0.0	5.7	3.9	0.0	6.0
Cycle Q Clear(g_c), s	4.8	0.0	3.0	2.8	0.0	1.1	0.9	0.0	5.7	3.9	0.0	6.0
Prop In Lane	1.00		0.04	0.09		1.00	1.00		0.06	1.00		0.23
Lane Grp Cap(c), veh/h	405	0	552	604	0	391	448	0	589	557	0	817
V/C Ratio(X)	0.11	0.00	0.21	0.18	0.00	0.08	0.03	0.00	0.29	0.33	0.00	0.33
Avail Cap(c_a), veh/h	433	0	598	648	0	423	448	0	589	579	0	817
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.00	0.98	0.94	0.00	0.94	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.8	0.0	14.1	14.1	0.0	13.5	17.3	0.0	19.5	9.2	0.0	8.1
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.0	1.2	0.1	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	1.4	1.3	0.0	0.4	0.2	0.0	2.8	1.7	0.0	2.8
LnGrp Delay(d),s/veh	15.8	0.0	14.2	14.1	0.0	13.5	17.5	0.0	20.7	9.4	0.0	9.2
LnGrp LOS	B		B	B		B	B		C	A		A
Approach Vol, veh/h		158			143			186			454	
Approach Delay, s/veh		14.6			14.0			20.5			9.3	
Approach LOS		B			B			C			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.2	25.5		24.3		35.7		24.3				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	6.5	18.5		21.5		29.5		21.5				
Max Q Clear Time (g_c+I1), s	5.9	7.7		6.8		8.0		4.8				
Green Ext Time (p_c), s	0.0	1.5		1.1		2.0		1.2				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			13.1									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary  
3: Broadway & 20th Street

2016 Telegraph Ave  
Existing Conditions AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	227	60	36	138	76	61	296	53	36	353	48
Future Volume (veh/h)	19	227	60	36	138	76	61	296	53	36	353	48
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.85		0.79	0.88		0.79	1.00		0.84	0.96		0.70
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1710	1676	1710	1710	1676	1710	1710	1676	1710	1710	1676	1710
Adj Flow Rate, veh/h	19	227	24	36	138	19	61	296	40	36	353	35
Adj No. of Lanes	0	2	0	0	2	0	0	2	0	0	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	869	88	193	667	94	75	743	135	208	1874	178
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.18	0.18	0.18	1.00	1.00	1.00
Sat Flow, veh/h	110	2610	265	368	2002	281	8	1344	245	259	3390	322
Grp Volume(v), veh/h	144	0	126	99	0	94	163	0	234	142	140	142
Grp Sat Flow(s),veh/h/ln	1591	0	1394	1264	0	1387	167	0	1430	1280	1388	1303
Q Serve(g_s), s	0.0	0.0	4.7	0.1	0.0	3.4	5.9	0.0	9.9	0.9	0.0	0.0
Cycle Q Clear(g_c), s	4.4	0.0	4.7	4.8	0.0	3.4	5.9	0.0	9.9	10.8	0.0	0.0
Prop In Lane	0.13		0.19	0.36		0.20	0.37		0.17	0.25		0.25
Lane Grp Cap(c), veh/h	588	0	464	491	0	462	0	0	790	772	767	720
V/C Ratio(X)	0.24	0.00	0.27	0.20	0.00	0.20	0.00	0.00	0.30	0.18	0.18	0.20
Avail Cap(c_a), veh/h	635	0	508	530	0	505	0	0	790	772	767	720
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	2.00	2.00	2.00
Upstream Filter(I)	0.97	0.00	0.97	0.98	0.00	0.98	0.97	0.00	0.97	0.96	0.96	0.96
Uniform Delay (d), s/veh	17.0	0.0	17.2	16.6	0.0	16.7	0.0	0.0	16.9	0.3	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.9	0.5	0.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	1.8	1.4	0.0	1.3	0.0	0.0	4.1	0.4	0.1	0.1
LnGrp Delay(d),s/veh	17.1	0.0	17.3	16.6	0.0	16.8	0.0	0.0	17.8	0.8	0.5	0.6
LnGrp LOS	B		B	B		B			B	A	A	A
Approach Vol, veh/h		270			193			397			424	
Approach Delay, s/veh		17.2			16.7			10.5			0.6	
Approach LOS		B			B			B			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		43.2		26.8		43.2		26.8				
Change Period (Y+Rc), s		5.0		4.0		5.0		4.0				
Max Green Setting (Gmax), s		36.0		25.0		27.0		25.0				
Max Q Clear Time (g_c+I1), s		11.9		6.7		12.8		6.8				
Green Ext Time (p_c), s		3.8		1.9		3.3		1.9				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			9.6									
HCM 2010 LOS			A									

**Intersection**

Int Delay, s/veh 2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4T						T		T	T	
Traffic Vol, veh/h	48	14	36	0	0	0	0	434	21	46	425	0
Future Vol, veh/h	48	14	36	0	0	0	0	434	21	46	425	0
Conflicting Peds, #/hr	23	0	33	33	0	23	101	0	182	182	0	101
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	120	-	-
Veh in Median Storage, #	-	0	-	-	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	48	14	36	0	0	0	0	434	21	46	425	0





















Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	985	1154	458	-	0	0	637	0	0
Stage 1	517	517	-	-	-	-	-	-	-
Stage 2	468	637	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	275	197	603	0	-	-	947	-	0
Stage 1	598	534	-	0	-	-	-	-	0
Stage 2	630	471	-	0	-	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver	261	0	584	-	-	-	926	-	-
Mov Cap-2 Maneuver	261	0	-	-	-	-	-	-	-
Stage 1	568	0	-	-	-	-	-	-	-
Stage 2	630	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.7	0	0.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	261	584	926	-
HCM Lane V/C Ratio	-	-	0.211	0.074	0.05	-
HCM Control Delay (s)	-	-	22.4	11.7	9.1	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	0.8	0.2	0.2	-

HCM 2010 Signalized Intersection Summary  
2: Telegraph Avenue & 20th Street

















2016 Telegraph Ave  
Existing Conditions PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	155	32	24	131	176	27	216	45	113	252	93
Future Volume (veh/h)	55	155	32	24	131	176	27	216	45	113	252	93
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.82		0.72	0.82		0.72	0.92		0.81	0.96		0.87
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1676	1676	1710	1710	1676	1676	1676	1676	1710	1676	1676	1710
Adj Flow Rate, veh/h	55	155	17	24	131	47	27	216	35	113	252	75
Adj No. of Lanes	1	1	0	0	1	1	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	372	497	54	114	502	357	442	505	82	463	618	184
Arrive On Green	0.35	0.35	0.34	0.34	0.35	0.35	0.12	0.12	0.12	0.08	0.52	0.51
Sat Flow, veh/h	890	1422	156	128	1435	1022	866	1358	220	1597	1196	356
Grp Volume(v), veh/h	55	0	172	155	0	47	27	0	251	113	0	327
Grp Sat Flow(s),veh/h/ln	890	0	1578	1564	0	1022	866	0	1578	1597	0	1551
Q Serve(g_s), s	2.8	0.0	4.8	0.0	0.0	1.9	1.7	0.0	8.8	2.4	0.0	7.8
Cycle Q Clear(g_c), s	6.8	0.0	4.8	4.0	0.0	1.9	1.7	0.0	8.8	2.4	0.0	7.8
Prop In Lane	1.00		0.10	0.15		1.00	1.00		0.14	1.00		0.23
Lane Grp Cap(c), veh/h	372	0	551	603	0	357	442	0	587	463	0	802
V/C Ratio(X)	0.15	0.00	0.31	0.26	0.00	0.13	0.06	0.00	0.43	0.24	0.00	0.41
Avail Cap(c_a), veh/h	387	0	579	628	0	375	442	0	587	523	0	802
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.00	0.95	0.89	0.00	0.89	0.99	0.00	0.99	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.4	0.0	14.3	14.0	0.0	13.3	17.3	0.0	20.4	9.7	0.0	8.9
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.1	0.0	0.1	0.3	0.0	2.3	0.1	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	2.1	1.9	0.0	0.5	0.4	0.0	4.2	1.0	0.0	3.6
LnGrp Delay(d),s/veh	16.5	0.0	14.4	14.1	0.0	13.4	17.5	0.0	22.7	9.8	0.0	10.4
LnGrp LOS	B		B	B		B	B		C	A		B
Approach Vol, veh/h		227			202			278			440	
Approach Delay, s/veh		14.9			13.9			22.2			10.3	
Approach LOS		B			B			C			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	8.7	26.3		25.0		35.0		25.0				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	6.5	18.5		21.5		29.5		21.5				
Max Q Clear Time (g_c+I1), s	4.4	10.8		8.8		9.8		6.0				
Green Ext Time (p_c), s	0.1	1.8		1.7		2.7		1.8				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			14.7									
HCM 2010 LOS			B									



HCM 2010 Signalized Intersection Summary  
 3: Broadway & 20th Street





















2016 Telegraph Ave  
 Existing Conditions PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	189	94	54	192	56	73	414	63	48	442	58
Future Volume (veh/h)	29	189	94	54	192	56	73	414	63	48	442	58
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.85		0.75	0.85		0.75	1.00		0.84	0.93		0.70
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1710	1676	1710	1710	1676	1710	1710	1676	1710	1710	1676	1710
Adj Flow Rate, veh/h	29	189	24	54	192	24	73	414	52	48	442	45
Adj No. of Lanes	0	2	0	0	2	0	0	2	0	0	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	140	776	96	205	659	84	70	767	138	220	1882	186
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00	0.37	0.37	0.36
Sat Flow, veh/h	229	2320	286	398	1970	251	6	1392	251	281	3415	337
Grp Volume(v), veh/h	128	0	114	138	0	132	243	0	296	187	174	173
Grp Sat Flow(s),veh/h/ln	1472	0	1364	1237	0	1382	224	0	1425	1347	1388	1298
Q Serve(g_s), s	0.0	0.0	4.3	1.6	0.0	4.9	8.4	0.0	0.0	0.0	6.1	6.5
Cycle Q Clear(g_c), s	3.8	0.0	4.3	5.9	0.0	4.9	8.4	0.0	0.0	5.3	6.1	6.5
Prop In Lane	0.23		0.21	0.39		0.18	0.30		0.18	0.26		0.26
Lane Grp Cap(c), veh/h	556	0	456	485	0	462	0	0	785	807	765	715
V/C Ratio(X)	0.23	0.00	0.25	0.28	0.00	0.29	0.00	0.00	0.38	0.23	0.23	0.24
Avail Cap(c_a), veh/h	577	0	477	504	0	484	0	0	785	807	765	715
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.67	0.67	0.67
Upstream Filter(I)	0.95	0.00	0.95	0.98	0.00	0.98	0.92	0.00	0.92	0.96	0.96	0.96
Uniform Delay (d), s/veh	16.8	0.0	17.0	17.2	0.0	17.2	0.0	0.0	0.0	11.6	11.8	12.0
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.0	1.3	0.6	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	1.6	2.0	0.0	1.9	0.0	0.0	0.3	2.6	2.5	2.5
LnGrp Delay(d),s/veh	16.8	0.0	17.1	17.3	0.0	17.3	0.0	0.0	1.3	12.2	12.5	12.8
LnGrp LOS	B		B	B		B			A	B	B	B
Approach Vol, veh/h		242			270			539			535	
Approach Delay, s/veh		16.9			17.3			0.7			12.5	
Approach LOS		B			B			A			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		43.1		26.9		43.1		26.9				
Change Period (Y+Rc), s		5.0		4.0		5.0		4.0				
Max Green Setting (Gmax), s		37.0		24.0		28.0		24.0				
Max Q Clear Time (g_c+I1), s		10.4		6.3		8.5		7.9				
Green Ext Time (p_c), s		5.5		2.2		5.1		2.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			10.0									
HCM 2010 LOS			A									

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	4TB						TB			TB		
Traffic Vol, veh/h	52	16	43	0	0	0	0	332	25	100	452	0
Future Vol, veh/h	52	16	43	0	0	0	0	332	25	100	452	0
Conflicting Peds, #/hr	22	0	30	30	0	22	81	0	97	97	0	81
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	120	-	-
Veh in Median Storage, #	-	0	-	-	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	52	16	43	0	0	0	0	332	25	100	452	0
Major/Minor	Minor2			Major1			Major2					
Conflicting Flow All	1019	1106	482	-	0	0	-	0	0	454	0	0
Stage 1	652	652	-	-	-	-	-	-	-	-	-	-
Stage 2	367	454	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	263	210	584	-	-	-	0	-	-	1107	-	0
Stage 1	518	464	-	-	-	-	0	-	-	-	-	0
Stage 2	701	569	-	-	-	-	0	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	239	0	567	-	-	-	-	-	-	1084	-	-
Mov Cap-2 Maneuver	239	0	-	-	-	-	-	-	-	-	-	-
Stage 1	470	0	-	-	-	-	-	-	-	-	-	-
Stage 2	701	0	-	-	-	-	-	-	-	-	-	-
Approach	EB			NB			SB					
HCM Control Delay, s	19			0			1.6					
HCM LOS	C											
Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT						
Capacity (veh/h)	-	-	239	567	1084	-						
HCM Lane V/C Ratio	-	-	0.251	0.09	0.092	-						
HCM Control Delay (s)	-	-	25	12	8.7	-						
HCM Lane LOS	-	-	D	B	A	-						
HCM 95th %tile Q(veh)	-	-	1	0.3	0.3	-						

















HCM 2010 Signalized Intersection Summary  
2: Telegraph Avenue & 20th Street

2016 Telegraph Ave  
Existing Plus Project Conditions AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	110	14	10	101	142	15	163	16	188	214	105
Future Volume (veh/h)	55	110	14	10	101	142	15	163	16	188	214	105
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.87		0.72	0.80		0.81	0.92		0.88	0.95		0.86
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1676	1676	1710	1710	1676	1676	1676	1676	1710	1676	1676	1710
Adj Flow Rate, veh/h	55	110	5	10	101	40	15	163	11	188	214	88
Adj No. of Lanes	1	1	0	0	1	1	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	405	529	24	84	536	392	437	546	37	555	566	233
Arrive On Green	0.34	0.34	0.33	0.33	0.34	0.34	0.12	0.12	0.11	0.11	0.53	0.52
Sat Flow, veh/h	975	1560	71	54	1579	1155	891	1537	104	1597	1073	441
Grp Volume(v), veh/h	55	0	115	111	0	40	15	0	174	188	0	302
Grp Sat Flow(s),veh/h/ln	975	0	1631	1632	0	1155	891	0	1641	1597	0	1514
Q Serve(g_s), s	2.5	0.0	3.0	0.0	0.0	1.4	0.9	0.0	5.8	4.1	0.0	7.1
Cycle Q Clear(g_c), s	5.4	0.0	3.0	2.8	0.0	1.4	0.9	0.0	5.8	4.1	0.0	7.1
Prop In Lane	1.00		0.04	0.09		1.00	1.00		0.06	1.00		0.29
Lane Grp Cap(c), veh/h	405	0	553	606	0	392	437	0	583	555	0	799
V/C Ratio(X)	0.14	0.00	0.21	0.18	0.00	0.10	0.03	0.00	0.30	0.34	0.00	0.38
Avail Cap(c_a), veh/h	432	0	598	648	0	424	437	0	583	573	0	799
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.00	0.98	0.94	0.00	0.94	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.9	0.0	14.1	14.0	0.0	13.6	17.5	0.0	19.6	9.3	0.0	8.4
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.0	1.3	0.1	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	1.4	1.3	0.0	0.5	0.2	0.0	2.9	1.7	0.0	3.2
LnGrp Delay(d),s/veh	16.0	0.0	14.2	14.1	0.0	13.6	17.6	0.0	20.9	9.5	0.0	9.8
LnGrp LOS	B		B	B		B	B		C	A		A
Approach Vol, veh/h		170			151			189			490	
Approach Delay, s/veh		14.8			14.0			20.7			9.7	
Approach LOS		B			B			C			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.3	25.3		24.4		35.6		24.4				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	6.5	18.5		21.5		29.5		21.5				
Max Q Clear Time (g_c+I1), s	6.1	7.8		7.4		9.1		4.8				
Green Ext Time (p_c), s	0.0	1.7		1.2		2.1		1.3				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			13.3									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary  
3: Broadway & 20th Street





















2016 Telegraph Ave  
Existing Plus Project Conditions AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	232	60	36	144	76	61	296	53	36	353	50
Future Volume (veh/h)	19	232	60	36	144	76	61	296	53	36	353	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.86		0.79	0.88		0.79	1.00		0.84	0.96		0.70
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1710	1676	1710	1710	1676	1710	1710	1676	1710	1710	1676	1710
Adj Flow Rate, veh/h	19	232	24	36	144	19	61	296	40	36	353	37
Adj No. of Lanes	0	2	0	0	2	0	0	2	0	0	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	94	873	87	188	679	91	75	743	135	207	1862	186
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.18	0.18	0.18	1.00	1.00	1.00
Sat Flow, veh/h	107	2622	260	357	2038	273	8	1344	245	258	3370	337
Grp Volume(v), veh/h	146	0	129	102	0	97	163	0	234	143	141	142
Grp Sat Flow(s),veh/h/ln	1592	0	1396	1277	0	1391	167	0	1430	1284	1388	1293
Q Serve(g_s), s	0.0	0.0	4.8	0.1	0.0	3.5	5.9	0.0	9.9	0.9	0.0	0.0
Cycle Q Clear(g_c), s	4.5	0.0	4.8	4.8	0.0	3.5	5.9	0.0	9.9	10.8	0.0	0.0
Prop In Lane	0.13		0.19	0.35		0.20	0.37		0.17	0.25		0.26
Lane Grp Cap(c), veh/h	589	0	465	495	0	463	0	0	790	774	767	714
V/C Ratio(X)	0.25	0.00	0.28	0.21	0.00	0.21	0.00	0.00	0.30	0.19	0.18	0.20
Avail Cap(c_a), veh/h	636	0	509	535	0	507	0	0	790	774	767	714
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	2.00	2.00	2.00
Upstream Filter(I)	0.97	0.00	0.97	0.98	0.00	0.98	0.97	0.00	0.97	0.96	0.96	0.96
Uniform Delay (d), s/veh	17.1	0.0	17.2	16.6	0.0	16.8	0.0	0.0	16.9	0.2	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.9	0.5	0.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	1.8	1.4	0.0	1.4	0.0	0.0	4.1	0.3	0.1	0.1
LnGrp Delay(d),s/veh	17.1	0.0	17.3	16.7	0.0	16.8	0.0	0.0	17.8	0.8	0.5	0.6
LnGrp LOS	B		B	B		B			B	A	A	A
Approach Vol, veh/h		275			199			397			426	
Approach Delay, s/veh		17.2			16.8			10.5			0.6	
Approach LOS		B			B			B			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		43.2		26.8		43.2		26.8				
Change Period (Y+Rc), s		5.0		4.0		5.0		4.0				
Max Green Setting (Gmax), s		36.0		25.0		27.0		25.0				
Max Q Clear Time (g_c+I1), s		11.9		6.8		12.8		6.8				
Green Ext Time (p_c), s		3.9		1.9		3.3		1.9				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			9.6									
HCM 2010 LOS			A									

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	4TB						TB			TB		
Traffic Vol, veh/h	48	14	36	0	0	0	0	451	24	46	445	0
Future Vol, veh/h	48	14	36	0	0	0	0	451	24	46	445	0
Conflicting Peds, #/hr	23	0	33	33	0	23	101	0	182	182	0	101
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	120	-	-
Veh in Median Storage, #	-	0	-	-	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	48	14	36	0	0	0	0	451	24	46	445	0
Major/Minor	Minor2						Major1			Major2		
Conflicting Flow All	1023	1194	478				-	0	0	657	0	0
Stage 1	537	537	-				-	-	-	-	-	-
Stage 2	486	657	-				-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22				-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-				-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-				-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318				-	-	-	2.218	-	-
Pot Cap-1 Maneuver	261	187	587				0	-	-	931	-	0
Stage 1	586	523	-				0	-	-	-	-	0
Stage 2	618	462	-				0	-	-	-	-	0
Platoon blocked, %							-	-	-			
Mov Cap-1 Maneuver	248	0	569				-	-	-	911	-	-
Mov Cap-2 Maneuver	248	0	-				-	-	-	-	-	-
Stage 1	556	0	-				-	-	-	-	-	-
Stage 2	618	0	-				-	-	-	-	-	-
Approach	EB						NB			SB		
HCM Control Delay, s	18.4						0			0.9		
HCM LOS	C											
Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT						
Capacity (veh/h)	-	-	248	569	911	-						
HCM Lane V/C Ratio	-	-	0.222	0.076	0.05	-						
HCM Control Delay (s)	-	-	23.6	11.8	9.2	-						
HCM Lane LOS	-	-	C	B	A	-						
HCM 95th %tile Q(veh)	-	-	0.8	0.2	0.2	-						

















HCM 2010 Signalized Intersection Summary  
2: Telegraph Avenue & 20th Street

2016 Telegraph Ave  
Existing Plus Project Conditions PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	155	32	24	131	195	27	221	45	116	255	107
Future Volume (veh/h)	82	155	32	24	131	195	27	221	45	116	255	107
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.83		0.72	0.82		0.72	0.92		0.81	0.96		0.87
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1676	1676	1710	1710	1676	1676	1676	1676	1710	1676	1676	1710
Adj Flow Rate, veh/h	82	155	17	24	131	66	27	221	35	116	255	89
Adj No. of Lanes	1	1	0	0	1	1	1	1	0	1	1	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	370	499	55	114	504	359	436	504	80	458	587	205
Arrive On Green	0.35	0.35	0.34	0.34	0.35	0.35	0.12	0.12	0.12	0.08	0.52	0.51
Sat Flow, veh/h	880	1422	156	129	1435	1023	854	1364	216	1597	1139	398
Grp Volume(v), veh/h	82	0	172	155	0	66	27	0	256	116	0	344
Grp Sat Flow(s),veh/h/ln	880	0	1578	1564	0	1023	854	0	1580	1597	0	1537
Q Serve(g_s), s	4.4	0.0	4.8	0.0	0.0	2.7	1.7	0.0	9.0	2.4	0.0	8.4
Cycle Q Clear(g_c), s	8.4	0.0	4.8	4.0	0.0	2.7	1.7	0.0	9.0	2.4	0.0	8.4
Prop In Lane	1.00		0.10	0.15		1.00	1.00		0.14	1.00		0.26
Lane Grp Cap(c), veh/h	370	0	554	605	0	359	436	0	584	458	0	793
V/C Ratio(X)	0.22	0.00	0.31	0.26	0.00	0.18	0.06	0.00	0.44	0.25	0.00	0.43
Avail Cap(c_a), veh/h	384	0	579	628	0	375	436	0	584	518	0	793
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.00	0.95	0.88	0.00	0.88	0.99	0.00	0.99	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.9	0.0	14.2	14.0	0.0	13.5	17.3	0.0	20.6	9.8	0.0	9.1
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.1	0.0	0.1	0.3	0.0	2.4	0.1	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	2.1	1.9	0.0	0.8	0.4	0.0	4.3	1.0	0.0	3.9
LnGrp Delay(d),s/veh	17.0	0.0	14.3	14.0	0.0	13.6	17.6	0.0	22.9	9.9	0.0	10.8
LnGrp LOS	B		B	B		B	B		C	A		B
Approach Vol, veh/h		254			221			283			460	
Approach Delay, s/veh		15.2			13.9			22.4			10.6	
Approach LOS		B			B			C			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	8.8	26.2		25.1		34.9		25.1				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	6.5	18.5		21.5		29.5		21.5				
Max Q Clear Time (g_c+I1), s	4.4	11.0		10.4		10.4		6.0				
Green Ext Time (p_c), s	0.1	1.8		1.8		2.8		2.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			14.9									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary  
3: Broadway & 20th Street

2016 Telegraph Ave  
Existing Plus Project Conditions PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	192	94	54	206	56	73	414	63	48	442	63
Future Volume (veh/h)	29	192	94	54	206	56	73	414	63	48	442	63
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.85		0.75	0.85		0.75	1.00		0.84	0.93		0.70
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1710	1676	1710	1710	1676	1710	1710	1676	1710	1710	1676	1710
Adj Flow Rate, veh/h	29	192	24	54	206	24	73	414	52	48	442	50
Adj No. of Lanes	0	2	0	0	2	0	0	2	0	0	3	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	138	779	95	198	680	80	70	767	138	217	1858	203
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	1.00	1.00	1.00	0.37	0.37	0.36
Sat Flow, veh/h	225	2330	283	381	2033	240	6	1392	250	277	3371	368
Grp Volume(v), veh/h	129	0	116	145	0	139	243	0	296	190	177	174
Grp Sat Flow(s),veh/h/ln	1472	0	1365	1266	0	1388	224	0	1425	1351	1388	1277
Q Serve(g_s), s	0.0	0.0	4.3	1.6	0.0	5.2	8.5	0.0	0.0	0.0	6.1	6.6
Cycle Q Clear(g_c), s	3.9	0.0	4.3	5.9	0.0	5.2	8.5	0.0	0.0	5.4	6.1	6.6
Prop In Lane	0.22		0.21	0.37		0.17	0.30		0.18	0.25		0.29
Lane Grp Cap(c), veh/h	556	0	457	494	0	464	0	0	785	809	765	704
V/C Ratio(X)	0.23	0.00	0.25	0.29	0.00	0.30	0.00	0.00	0.38	0.23	0.23	0.25
Avail Cap(c_a), veh/h	577	0	478	513	0	486	0	0	785	809	765	704
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.67	0.67	0.67
Upstream Filter(I)	0.95	0.00	0.95	0.98	0.00	0.98	0.92	0.00	0.92	0.96	0.96	0.96
Uniform Delay (d), s/veh	16.8	0.0	17.0	17.2	0.0	17.3	0.0	0.0	0.0	11.6	11.8	12.0
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.0	1.3	0.7	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	1.6	2.1	0.0	2.0	0.0	0.0	0.3	2.6	2.5	2.5
LnGrp Delay(d),s/veh	16.9	0.0	17.1	17.3	0.0	17.4	0.0	0.0	1.3	12.3	12.5	12.8
LnGrp LOS	B		B	B		B			A	B	B	B
Approach Vol, veh/h		245			284			539			540	
Approach Delay, s/veh		17.0			17.3			0.7			12.5	
Approach LOS		B			B			A			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		43.1		26.9		43.1		26.9				
Change Period (Y+Rc), s		5.0		4.0		5.0		4.0				
Max Green Setting (Gmax), s		37.0		24.0		28.0		24.0				
Max Q Clear Time (g_c+I1), s		10.5		6.3		8.6		7.9				
Green Ext Time (p_c), s		5.6		2.2		5.1		2.2				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				10.1								
HCM 2010 LOS				B								





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