2305 WEBSTER STREET MIXED USE RESIDENTIAL PROJECT CEQA ANALYSIS

City of Oakland

May 10, 2017

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2305 Webster Street Mixed Use Residential Project
CEQA Analysis

Pursuant to California Resources Code Sections 21083.3, 21094.5.5, and 21166 and State CEQA Guidelines Sections 15164, 15183, 15183.3

Date:	May 10, 2017
Project Address:	2305 Webster Street, Oakland CA
Project Number:	PLN 17-034
Zoning:	Broadway Valdez District Retail Commercial (D-BV-2)
General Plan:	Central Business District
APNs:	8-667-5-3
Lot Size:	0.3 acre
Plan Area:	Broadway Valdez District Specific Plan
Project Sponsor:	Segula Investments 2071 Addison Street Berkeley, CA 94707 Attn: Avi Nevo (925) 226-2469
Staff Contact:	Peterson Z. Vollmann (510) 238-6167 pvollmann@oaklandnet.com

I. EXECUTIVE SUMMARY

The project sponsor, Avi Nevo, Segula Investments, is proposing to develop one parcel located at 2305 Webster Street within the Broadway Valdez District Specific Plan (BVDSP, or Plan) area into a mixed-use development. The project site is currently a surface-grade parking lot. The 2305 Webster Street Mixed Use Residential Project (project) would include construction of a 24-story mixed-use residential and retail building, including a parking garage, for a gross building area of 239,000 square feet on an approximately 11,745 square foot lot. The proposed building would have a maximum height of approximately 240 feet as measured to the roof, inclusive of an above-grade parking structure.

The building would provide 18 levels of residential uses (inclusive of the two penthouse levels), one level of transitional uses (residential and residential support including mechanical, storage, utilities, and amenities), one level of ground-floor retail and 5 levels of parking. In total, the proposed project would include 130 dwelling units (approximately 184,000 square feet of residential space), approximately 3,000 square feet of retail, and 84 parking stalls (approximately 52,000 square feet).

The BVDSP Environmental Impact Report (EIR)[1,2] analyzed environmental impacts associated with adoption and implementation of the BVDSP and, where the level of detail available was adequate for analyzing potential environmental effects, provided a project-level California Environmental Quality Act (CEQA) review of reasonably foreseeable development. Project-level analysis allows the use of CEQA streamlining and/or tiering provisions for projects that are developed under the BVDSP.

Applicable CEQA streamlining and/or tiering code sections are described below, each of which, separately and independently, provides a basis for CEQA compliance.

1. **Community Plan Exemption.** Public Resources Code Section 21083.3 and State CEQA Guidelines Section 15183 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 that 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."
2. **Qualified Infill Exemption.** Public Resources Code Section 21094.5 and State CEQA Guidelines Section 15183.3 allow streamlining for certain qualified infill projects by limiting the topics that are subject to review at the project level, provided 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 are located in an urban area and on a site that either has been previously developed or adjoins existing qualified urban uses on at least 75 percent of the site's perimeter, able to satisfy the performance standards provided in State CEQA Guidelines Appendix M, and 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.
3. **Addendum.** Public Resources Code Section 21166 and State CEQA Guidelines Section 15164 state that an addendum to a certified EIR is allowed when minor

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[1] ESA (Environmental Science Associates). 2013. *Broadway Valdez District Specific Plan, Draft Environmental Impact Report*. SCH No. 2012052008. September.

[2] ESA (Environmental Science Associates). 2014. Broadway Valdez District Specific Plan, Responses to Comments and Final. May. (These documents can be obtained at the Bureau of Planning at 250 Frank Ogawa Plaza, #3115, or online at http://www2.oaklandnet.com/Government/o/PBN/OurServices/Plans/OWD008194.)

changes or additions are necessary and none of the conditions for preparation of a subsequent EIR or negative declaration, per Section 15162, are satisfied.

The CEQA Checklist provided below evaluates the potential project-specific environmental effects of the proposed project and whether such impacts were adequately covered by the BVDSP EIR to allow the above-listed streamlining and/or tiering provisions of CEQA to apply. The analysis conducted incorporates by reference the information contained in the BVDSP EIR. Mitigation measures and Standard Conditions of Approval (SCAs) identified in the BVDSP EIR that would apply to the proposed project are listed at the end of the CEQA Checklist. The proposed project is legally required to incorporate and/or comply with the applicable requirements of the mitigation measures identified in the BVDSP EIR as well as applicable City of Oakland (City) SCAs; therefore, the measures and SCAs are herein assumed to be included as part of the proposed project (see Attachment A).

The proposed project satisfies each of the foregoing CEQA provisions, as summarized below.

- **Community Plan Exemption.** As stated in Section 1.2.2 of the BVDSP, when development proposals in the BVDSP area are brought before the City, the staff and decision-makers use the BVDSP as a guide for project review. Projects are evaluated for consistency with the intent of BVDSP policies and conformance with development regulations. The environmental review of the BVDSP was intended to expedite the processing of future projects that are consistent with the BVDSP. Therefore, consistent with Section 1.2.3 of the BVDSP and State CEQA Guidelines Section 15183, this CEQA analysis satisfies, based on the analysis conducted in this document, the requirements for a community plan exemption. The proposed project is permitted in the zoning district where the project site is located and consistent with the bulk, density, and land use standards envisioned in the BVDSP. The CEQA Checklist below concludes that the proposed project would not result in significant impacts that (1) would be peculiar to the project or project site; (2) were not identified as significant project-level, cumulative, or off-site effects in the BVDSP EIR; or (3) were previously identified as significant but later found to have a more severe adverse impact than that discussed in the EIR. Findings regarding the proposed project's consistency with the BVDSP are included as Attachment B to this document.
- **Qualified Infill Exemption**. The analysis conducted indicates that the proposed project is eligible for a qualified infill exemption, pursuant to State CEQA Guidelines Section 15183.3. The infill eligibility criteria are evaluated in Attachment C and supported by the CEQA Checklist included below.
- **Addendum.** The analysis conducted, as described in this document, demonstrates that preparation of an addendum to the BVDSP EIR is allowed for the proposed project. Therefore, this CEQA analysis is considered to be the addendum (see Attachment D for further details). The BVDSP EIR analyzed the Broadway Valdez

> Illustrative Development Program (Development Program), which represents the maximum level of feasible development that can reasonably be expected to occur in the Plan Area over a 25-year planning period, according to City of Oakland projections. In total, the Development Program includes approximately 3.7 million square feet of development, including approximately 695,000 square feet of office space, 1,114,000 square feet of restaurant/retail space, 1,800 residential units, a new 180-room hotel, 6,500 parking spaces, and 4,500 new jobs. The BVDSP allows for flexibility with respect to the quantity and profile of future development within each subarea, and between subareas, as long as such development conforms to the general traffic generation parameters established by the Plan. The Development Program is not intended to be a cap that would restrict development.

The proposed project is in Subdistrict 1 of the Valdez Triangle subarea of the Plan, where development of a total of 438 residential units, 153,906 square feet of restaurant/retail space, and 181 hotel rooms is envisioned over the life of the Plan. The Subdistricts were developed for the purpose of having the traffic impact analysis in the BVDSP EIR to provide a reasonable foreseeable estimate of the maximum development that the City has projected can reasonably be expected to occur in the Plan Area over the next 25 years. As shown in Table 1, the proposed project would include 130 units and approximately 3,000 square feet of commercial/retail space on an approximately 0.3-acre property that currently consists of surface level parking. The proposed project is consistent with the type of development envisioned in Subdistrict 1 and would not exceed the total number of residential units or restaurant/retail space foreseen for Subdistrict 1 in the Plan.

Appendix D of the BVDSP includes an Illustrative Development Program Map that depicts one of many possible development scenarios to achieve the Broadway Valdez Development Program. The Map and accompanying table do not prescribe exact land uses on any site. The Map presents a scenario under which the proposed project site would be redeveloped with 24 dwelling units. While the proposed project would involve development of more dwelling units than represented in the illustrative scenario presented on the Map, the proposed project is consistent with the zoning for the site. As described in further detail in Attachment B, the project site is located in D-BV-2 Broadway Valdez District Retail Commercial Zone-2, where ground floor general retail sales and upper story permanent residential uses are permitted activities. As such, the mix of uses in the proposed project is consistent with the permitted activities established for the D-BV-2 zone.

Table 1 Comparison of BVDSP Development Program, Subdistrict 1, and Proposed Project

Development Characteristics	Total BVDSP Development Program[a]	Subdistrict 1	Proposed Project
Residential Units	1,800	438	130
Commercial Square Footage (net)	695,000 square feet of office space 1,114,000 square feet of restaurant/retail space 181 hotel rooms	0 square feet of office 153,906 square feet of restaurant/retail 24 hotel rooms[b]	Approximately 3,000 square feet

Notes:
[a] Development Program Grand Total, listed in Appendix D of the Broadway Valdez Specific Plan, Table D.1: Illustrative Development Plan Program Map by Subdistrict.
[b] Development Program for Project Site #4 in Subdistrict 1, listed in Appendix D, Table D.1: Illustrative Development Plan Program Map by Subdistrict.
Source: City of Oakland. 2014. Broadway Valdez District Specific Plan. Adopted June. HKS, 2016.

The proposed project would generate 40 AM and 57 PM net new peak-hour vehicle trips. Together with trips generated by other projects that are currently under construction, approved, or proposed for development in the Plan Area, this would represent approximately 48 percent of the AM and 48 percent of the PM peak-hour trips anticipated in the BVDSP EIR, 82 percent of the AM and 68 percent of the PM peak-hour trips anticipated in the BVDSP EIR for the Valdez Triangle subarea, and 95 percent of the AM and 80 percent of the PM peak-hour trips anticipated in the BVDSP EIR for Subdistrict 1. While the total number of residential units proposed by the project combined with the projects under construction, approved, and proposed in the Plan Area, as well as in the Valdez Triangle Subarea, would exceed the Development Program Buildout assumptions in the BVDSP EIR,[3] because their combined trip generation would be within the scope of the program analyzed under the BVDSP EIR for the Plan Area, the Valdez Triangle, and Subdistrict 1, the traffic impact analysis, which the EIR determined was the key environmental factor constraining development, remains valid. Therefore, the proposed project meets the requirements for preparation of an addendum, as evidenced in Attachment D to this document.

[3] As shown in Table 6 in Section 13, Transportation and Circulation, 2,576 net new residential units have been proposed or approved in the Plan Area compared to 1,800 residential units described in the BVDSP EIR.

Examination of the analysis, findings, and conclusions of the BVDSP EIR, as summarized in the CEQA Checklist below, indicates that the BVDSP EIR adequately analyzed and covered the potential environmental impacts associated with the proposed project. The streamlining and/or tiering provisions of CEQA apply to the proposed project. Therefore, no further review or analysis, under CEQA, is required.

II. PROJECT DESCRIPTION

Project Location

The project site occupies an approximately 0.3 acre rectangular-shaped parcel on the northwest corner of Webster Street/23rd Street and consists of Assessor's Parcel Number (APN) 8-667-5-3 within the Valdez Triangle Sub-District of the Specific Plan Area.

The project is located within a highly-urbanized, transit-oriented area with accessibility from Interstate 580 (also known as MacArthur Freeway) located approximately 0.75 mile to the north-northeast; Interstate 980 (also known as John B. Williams Freeway) located approximately 0.4 mile to the west; and Interstate 880 (also known as Nimitz Freeway) located approximately 1.0 mile to the south (Exhibit 1).

Multiple transit routes serve the project, including Alameda-Contra Costa County Transit District Routes 1, 1R, 11, 12, 26, 57, 51A, 800, 805, 851, B, CB, E, NL, NX, NX1, NX2, NX3, NX4, NXC, P, and V. The 19th Street Bay Area Rapid Transit District (BART) station is approximately 0.36-mile southwest of the site, while the MacArthur BART station is approximately 1.15 miles northwest of the site.

Existing Conditions

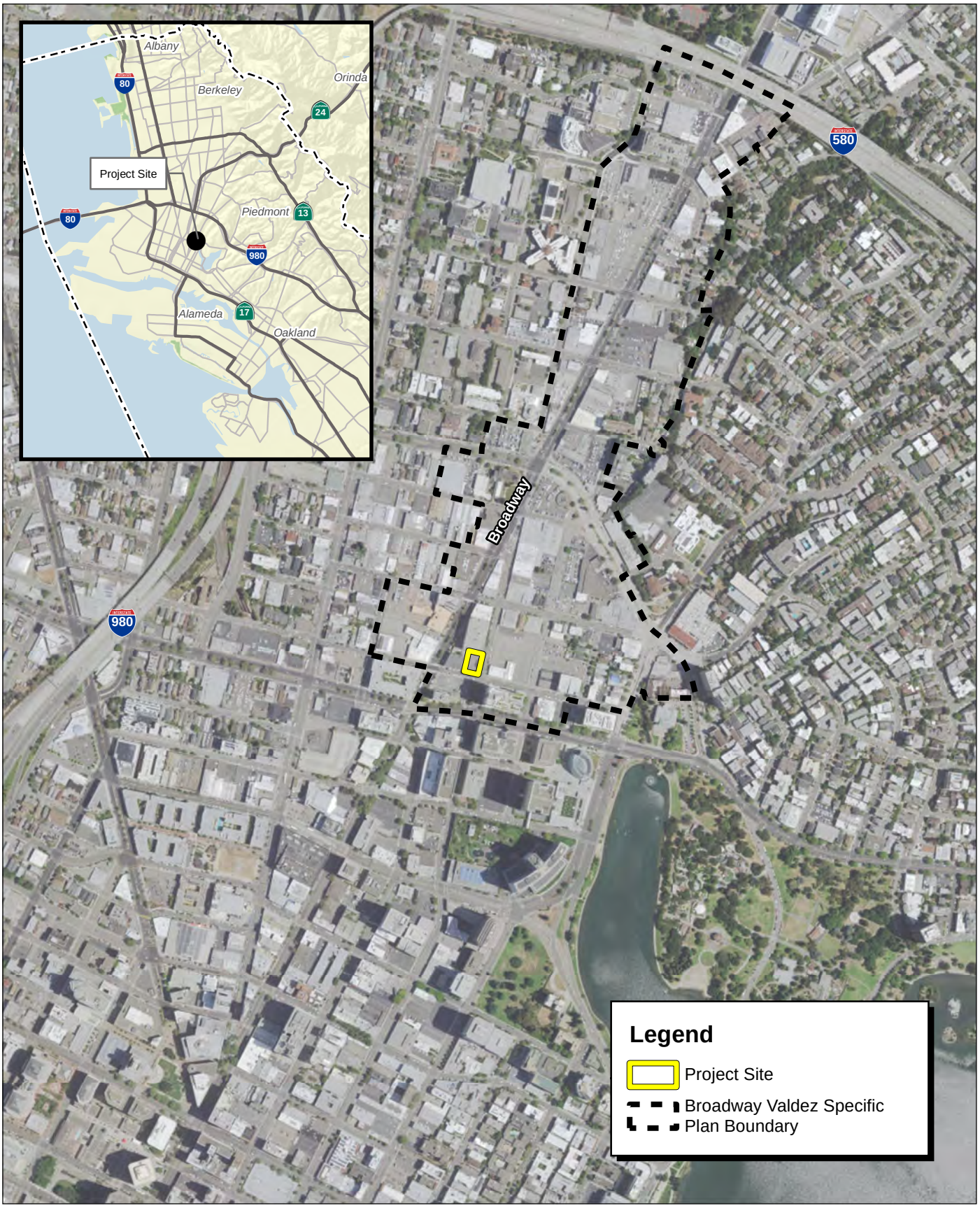
The 0.3-acre site has a flat topographic gradient and is currently paved and utilized for surface-grade parking. Access to the project site is provided by two existing curb cuts located along Webster Street. Several deciduous street trees are planted along the eastern and southern perimeter of the site. Adjoining the project site to the west is a multi-story residential building with commercial uses located on the first floor (2300 Broadway). A multi-story parking structure adjoins the project site to the north. Webster Street and 23rd Street immediately adjoin the project to the east and south, respectively (Exhibit 2).

Existing land uses shown within the BVDSP in the immediate project vicinity include service, parking lots, and mixed-use (non-residential) uses. East of Webster Street is characterized by parking lots and entertainment. High-density residential use is located on the southeast corner of Webster Street/23rd Street. To the south across 23rd Street are several parking lot uses.

The General Plan land use designation for the project site is Central Business District. 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 project site is zoned Broadway Valdez District Retail Commercial (D-BV-2). The intent of the D-BV-2 Retail Zone is to create, maintain, and enhance areas of the BVDSP Area for ground-level retail, restaurants, entertainment, and art activities with pedestrian-oriented, active storefront uses. Upper-story spaces are intended to be available for a wide range of Office and Residential Activities.

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Source: ESRI Imagery, 2015

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Feet

Exhibit 1
Regional Location Map

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Source: ESRI Imagery, 2015

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Feet

Exhibit 2
Local Vicinity Map

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Project Characteristics

The proposed project would demolish the existing surface parking lot on the site and would entail the construction a 24-floor, approximately 239,000 square-foot mixed-use residential building up to 240 feet in height as measured to the roof. The project would include approximately 3,000 square feet of commercial space on the ground floor along 23rd Street, and up to 130 residential units on upper floors. The project would provide up to approximately 52,000 square feet of above-grade parking on five levels consisting of up to 84 vehicle parking spaces. The project characteristics are shown in Table 2 below. Exhibit 3 shows the proposed site/ground floor plan, while Exhibit 4 shows renderings of the proposed building. Floor plans are shown on Exhibits 5, 6a and 6b. Building elevations and building height are shown on Exhibits 7a and 7b.

Table 2 Project Characteristics

Lot	**Dimensions**
Size	0.3 acre
Proposed Uses	**Area (gross square feet)**
Commercial (Retail)	3,000
Residential	184,000
Parking	52,000
Total Uses	**239,000**
Proposed Residential Units	**Number (Percent of total))**
1-bedroom	15 (12%)
2-bedroom	105 (81%)
3-bedroom	10 (7%)
Total Units	**130 (100%)**
Proposed Parking	**Number of Spaces**
Vehicle Parking Spaces	84
Bicycle Parking Spaces	79 (12 short-term, 67 long-term)
Open Space	**Proposed**
Courtyard (outdoor Terrace)	1,088 SF
Private Group Community Room (Lounge, gym)	2,356 SF
Private usable open space (balconies)	7,220 SF
Total Open Space	10,664 SF
Building Characteristics	
24 stories (with building height of approximately 240 feet as measured to the roof) • One level retail on ground floor	

- Five levels of parking, all located above-grade on floors 2 through 6
- One level of transitional uses on floor 7

* Residential units on floors 7 through 24

* Retail gsf also includes circulation and support areas.
Source: Studio KDA, 2017.

Residential Uses

Approximately 184,000 square feet of residential uses would be constructed in the building on floors seven through 24, above the transitional and parking areas extending up to the penthouse levels. Up to 130 residential units would be constructed.

Commercial Uses

The project would include approximately 3,000 square feet of commercial retail on the ground level at the northwest corner of 23rd Street and Webster Street. Entrances would be on 23rd Street and Webster Street as shown above on Exhibit 3.

Access, Circulation, and Parking

Residential access would be provided via the main residential lobby, located along the middle of the ground floor adjoining Webster Street. Access to the retail/commercial space would be provided along the respective street frontages. An entry ramp to the parking garage would be at the northeast corner of the project site, along Webster Street, providing access to the above-grade parking.

Approximately 52,000 square feet of parking space would be provided in five levels located above-grade on floors 2 through 6. Approximately 84 vehicular parking spaces would be provided.

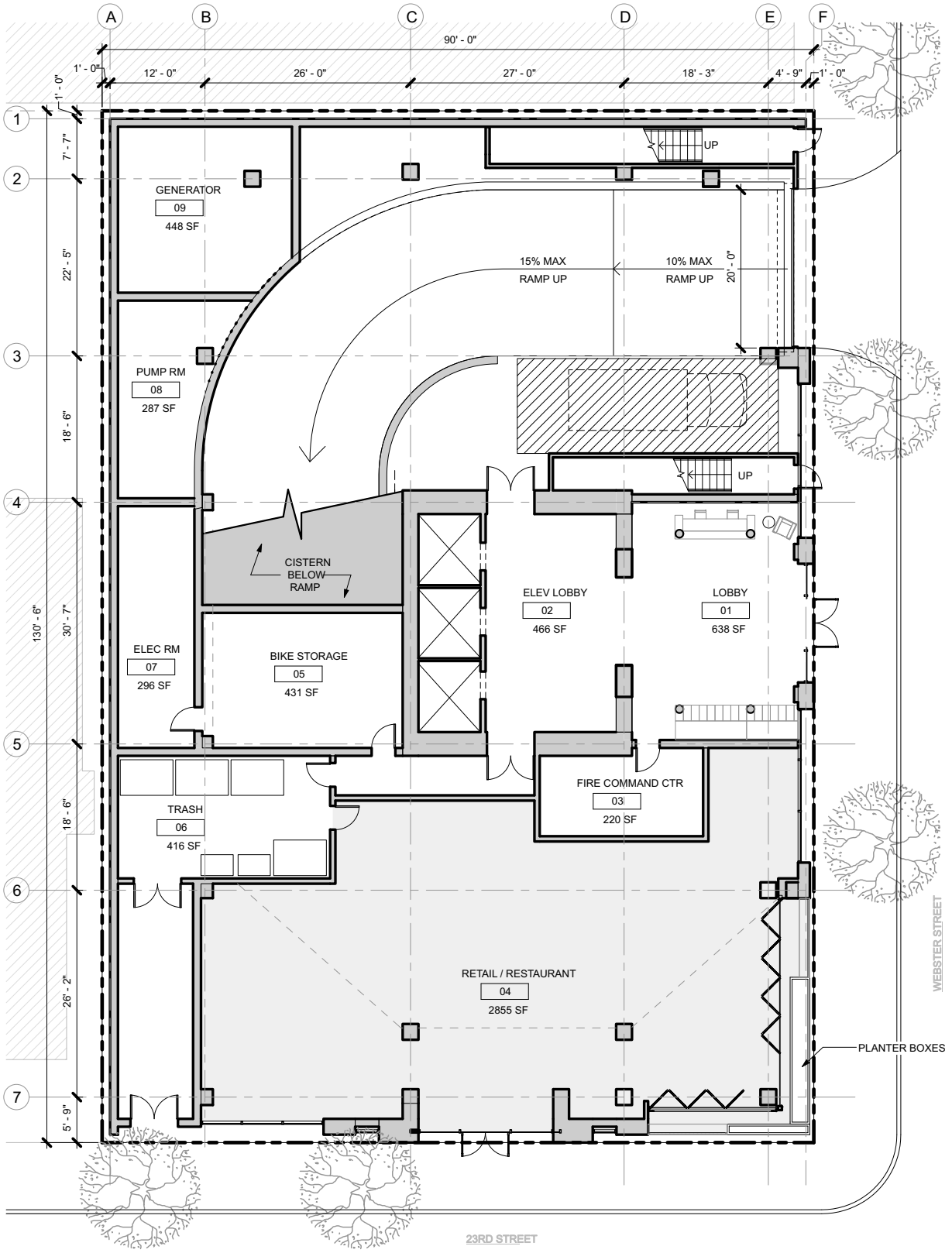
A loading area would be on the ground floor just north of the core and lobby area of the building. The loading area would be accessed from the parking entry ramp driveway on Webster Street. Along Webster Street, one driveway is proposed for vehicle ingress and egress into the parking area.

Open Space

The project would provide a total of approximately 10,664 square feet of common open space for the building residents, as shown in Exhibit 8. The 8th through 24th floors would include private useable balcony open space totaling 7,220 SF. The 7th floor would include a courtyard (outdoor terrace), lounge, and gym with a total of 3,444 square feet for this floor.

Streetscape Improvements

Sidewalk and streetscape improvements would also be considered as part of the project, consistent with the BVDSP Public Realm Design Guidelines for Streetscape Design. Streetscape improvements could include new street trees along Webster Street/23rd Street that would be pre-approved by the City prior to planting, street furniture, and bike racks for retail parking.



GROUND FLR PLAN

Source: Studio KDA, 2017

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Exhibit 3
Proposed Site / Ground Floor Plan

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2305 Webster Street – Sunset View



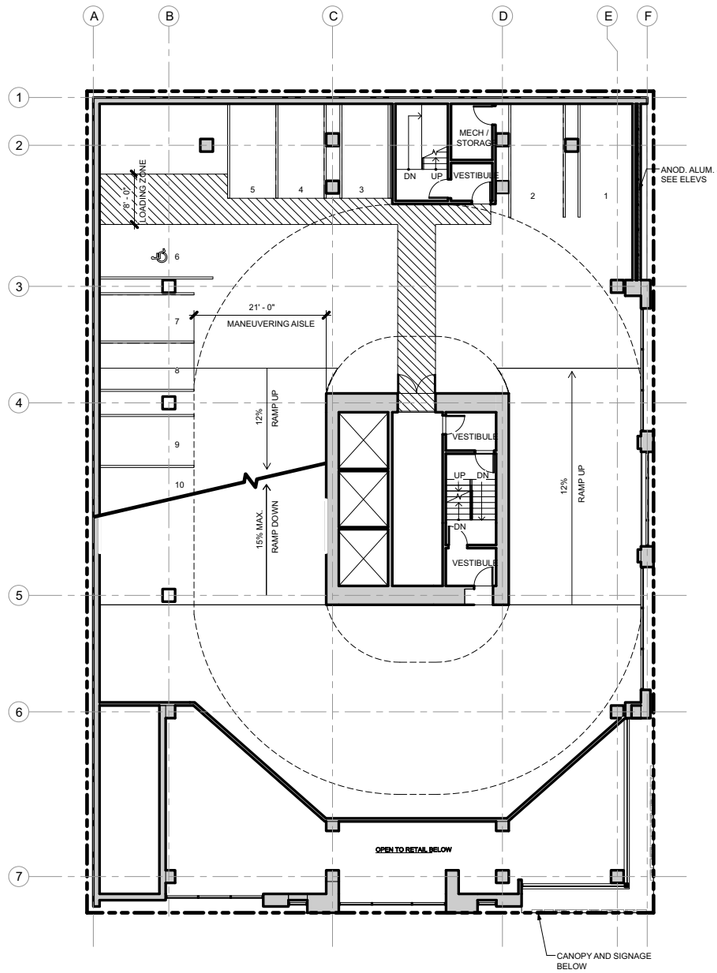
2305 Webster Street – Nighttime View

Source: Studio KDA, 2017

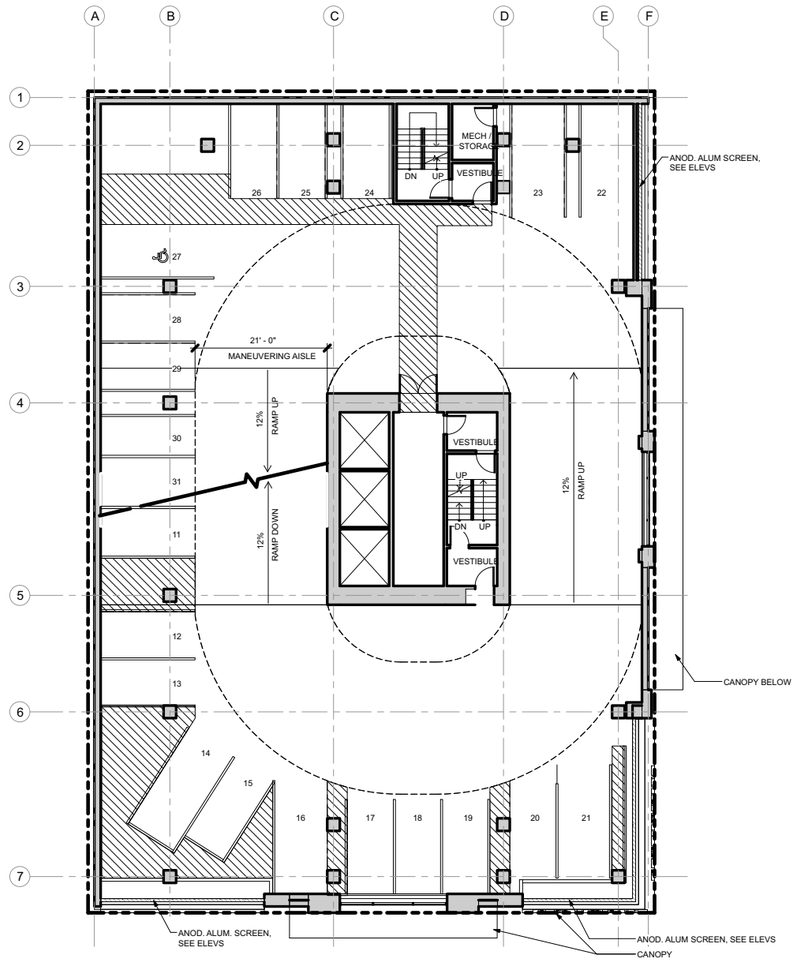
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Exhibit 4
Renderings of Proposed Project

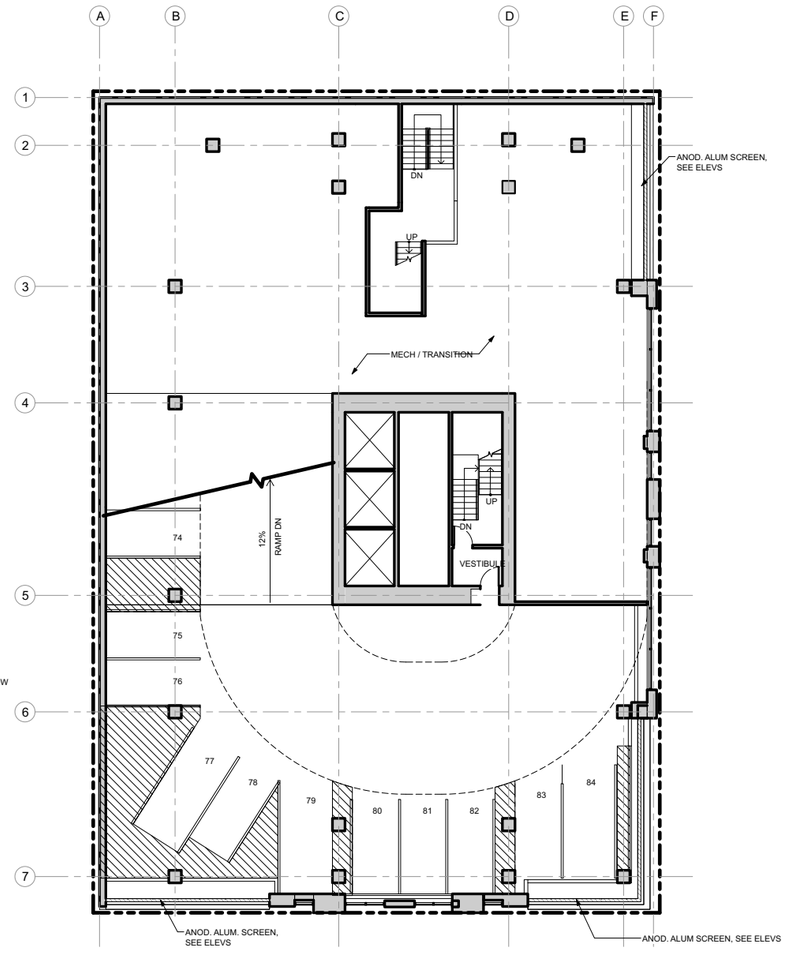
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2ND FLR PLAN



TYPICAL PARKING PLAN (3RD - 5TH FLR)



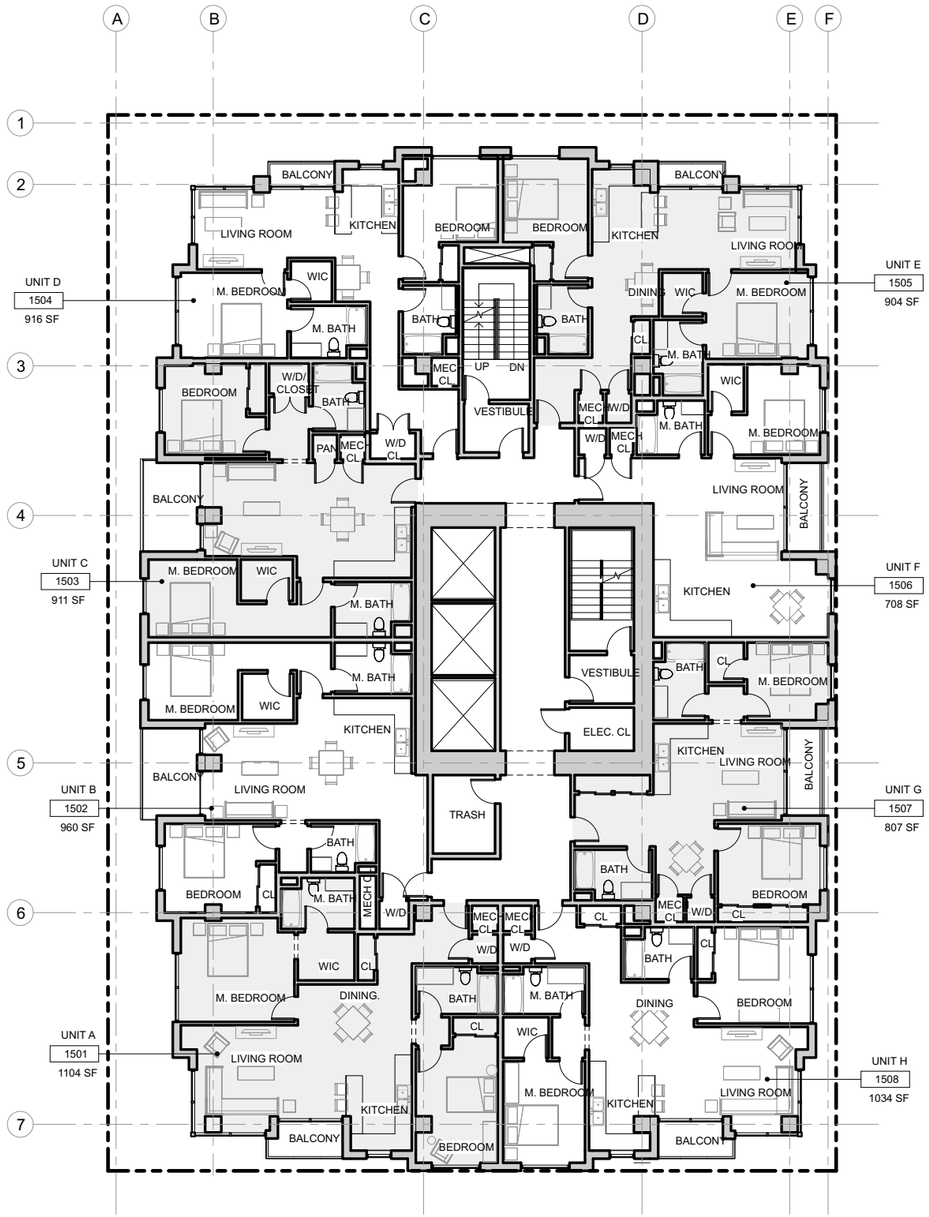
6TH FLR PLAN

Source: Studio KDA, 2017

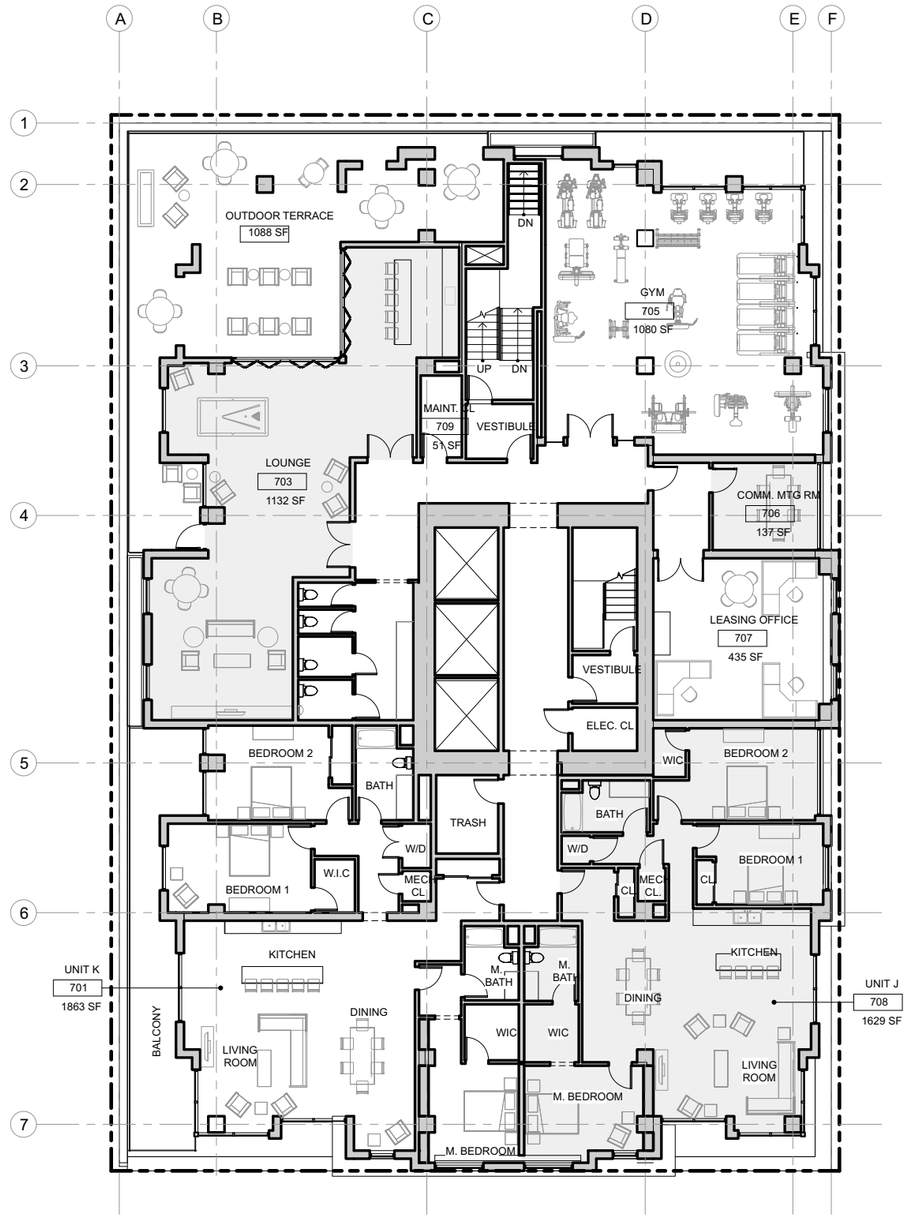
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Exhibit 5
Parking Plan

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TYPICAL RESIDENTIAL PLAN (8TH - 22ND FLR)



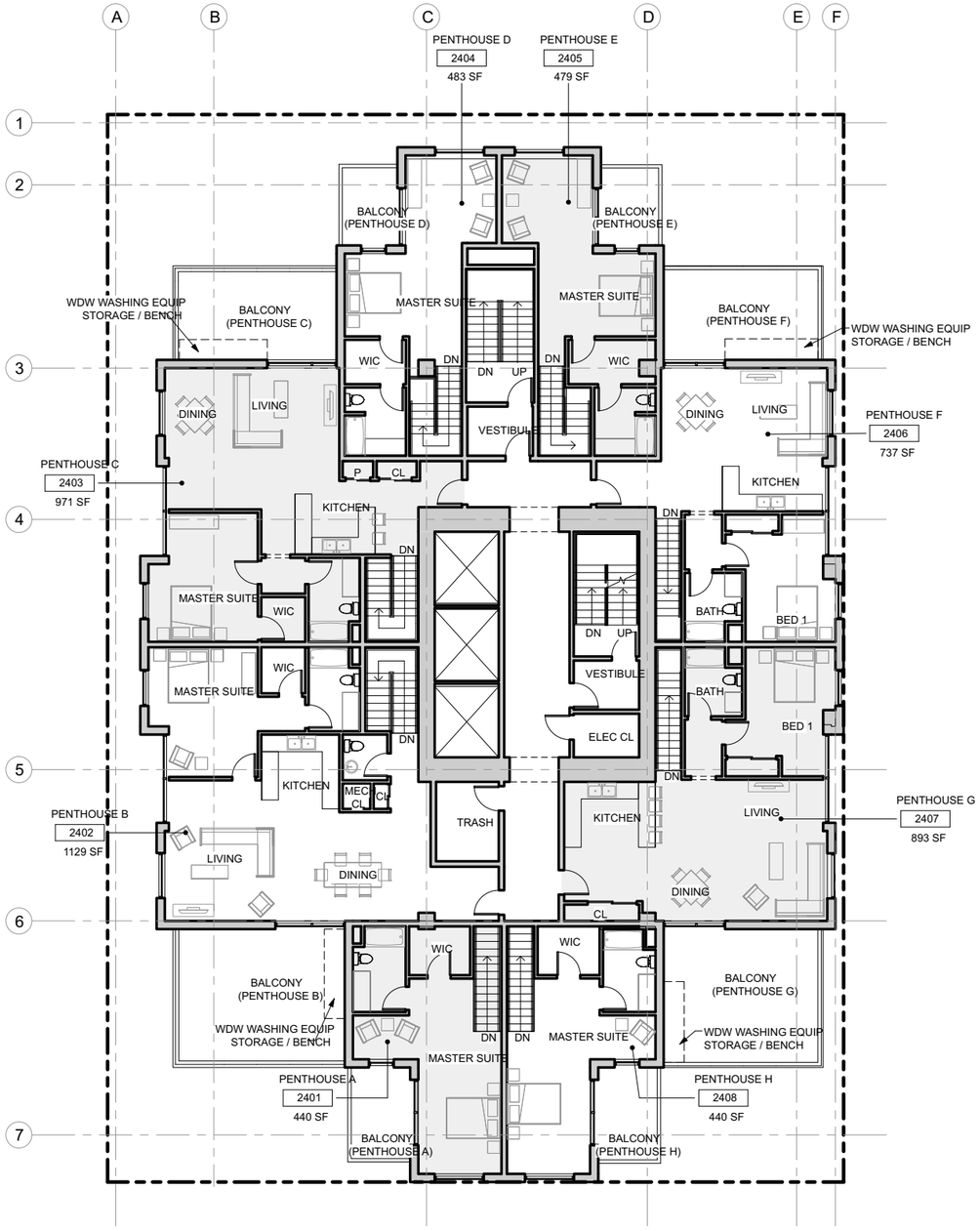
7TH FLR PLAN

Source: Studio KDA, 2017

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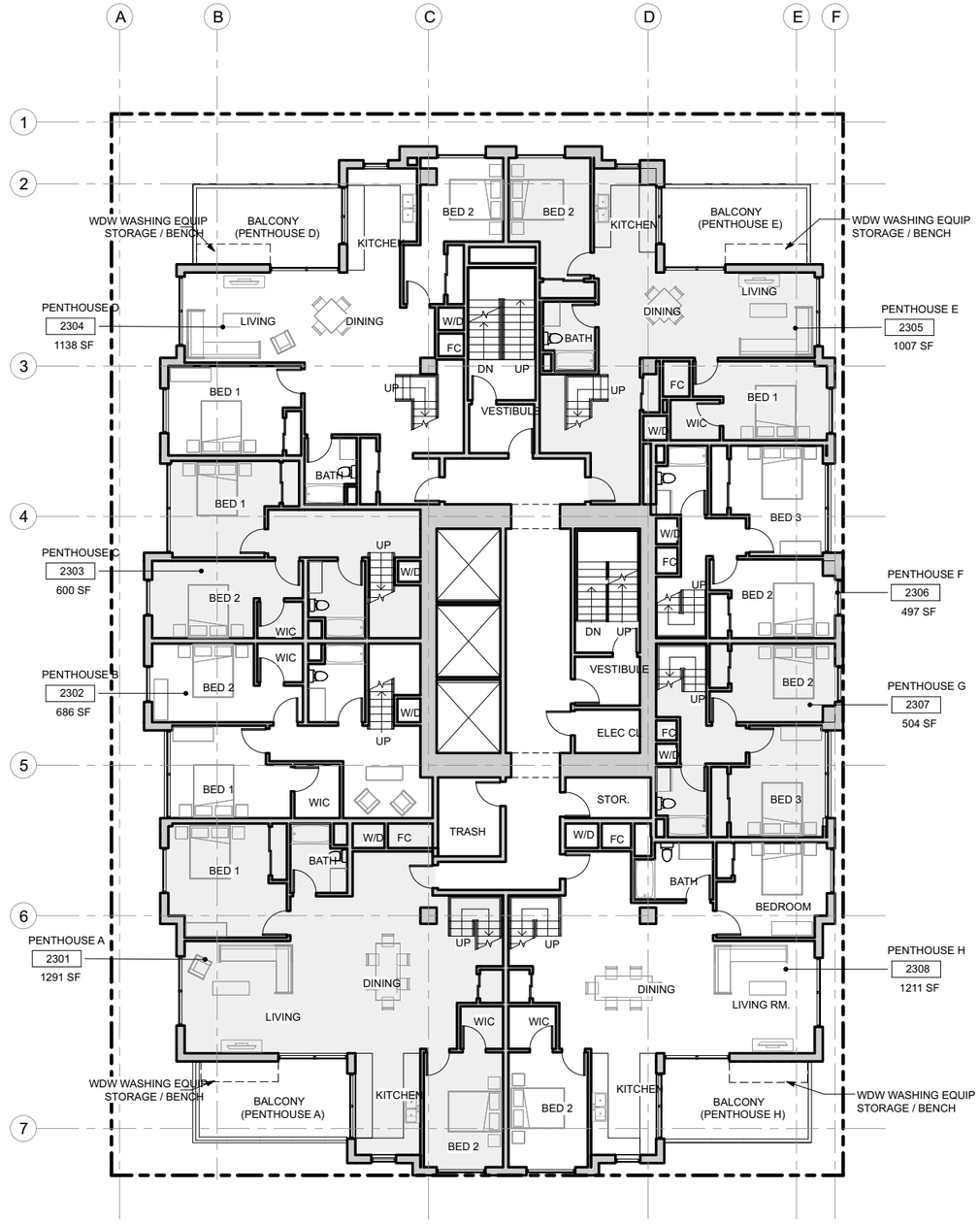
Exhibit 6a
Residential Floor Plans (7th through 22nd Floors)

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24TH FLR (PENTHOUSE LEVEL 2)

1/8" = 1'-0"



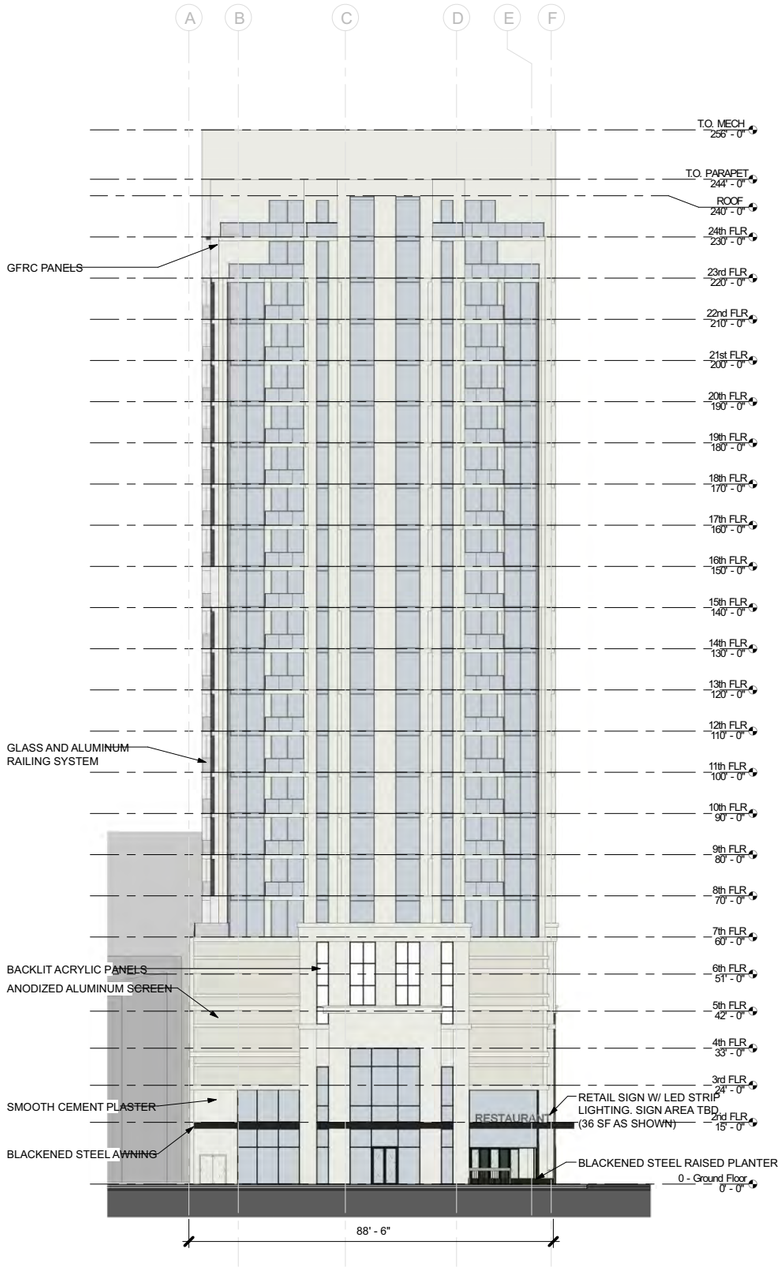
23RD FLR (PENTHOUSE LEVEL 1)

Source: Studio KDA, 2017

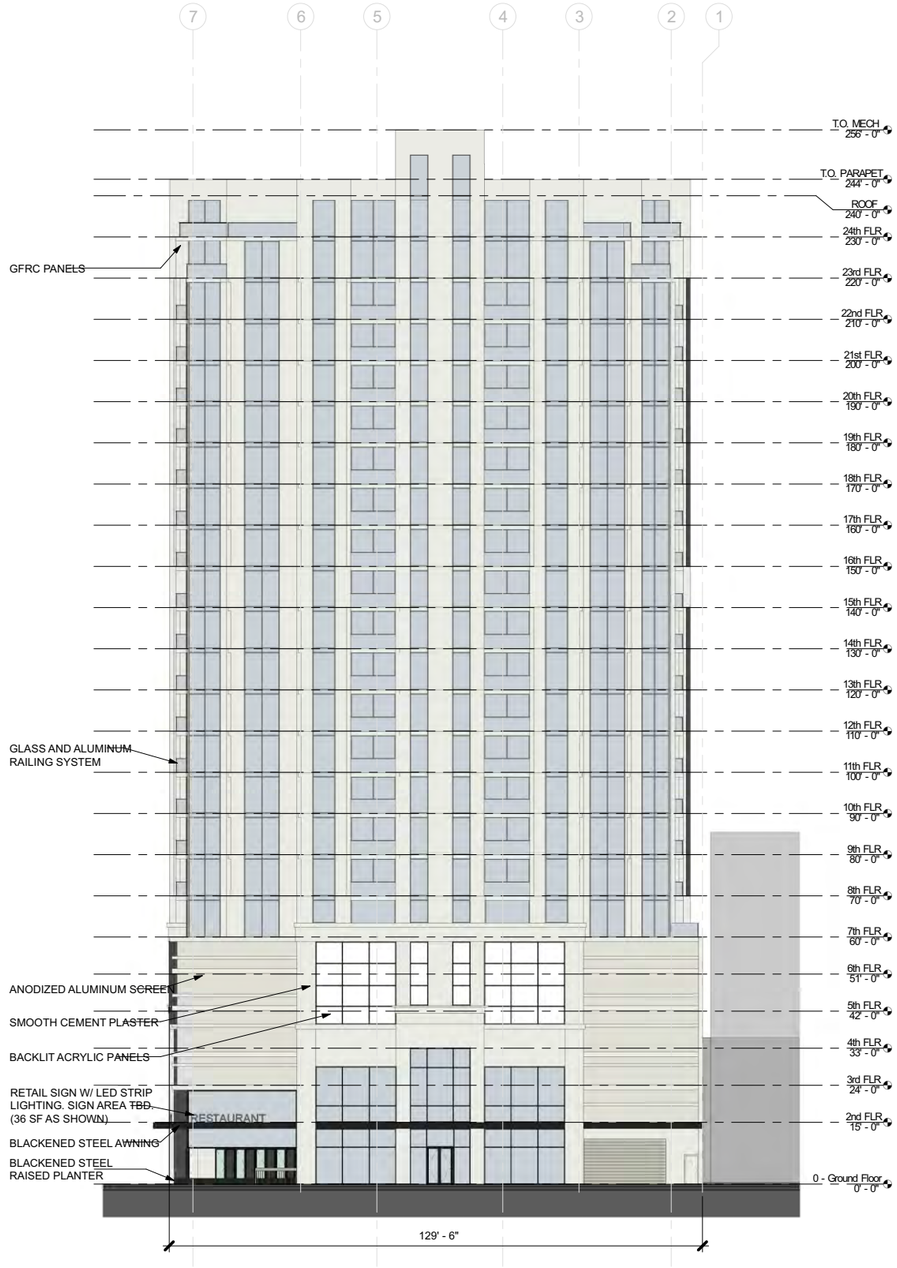
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Exhibit 6b
Residential Floor Plans (23rd and 24th Floors)

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SOUTH ELEVATION - 23rd STREET



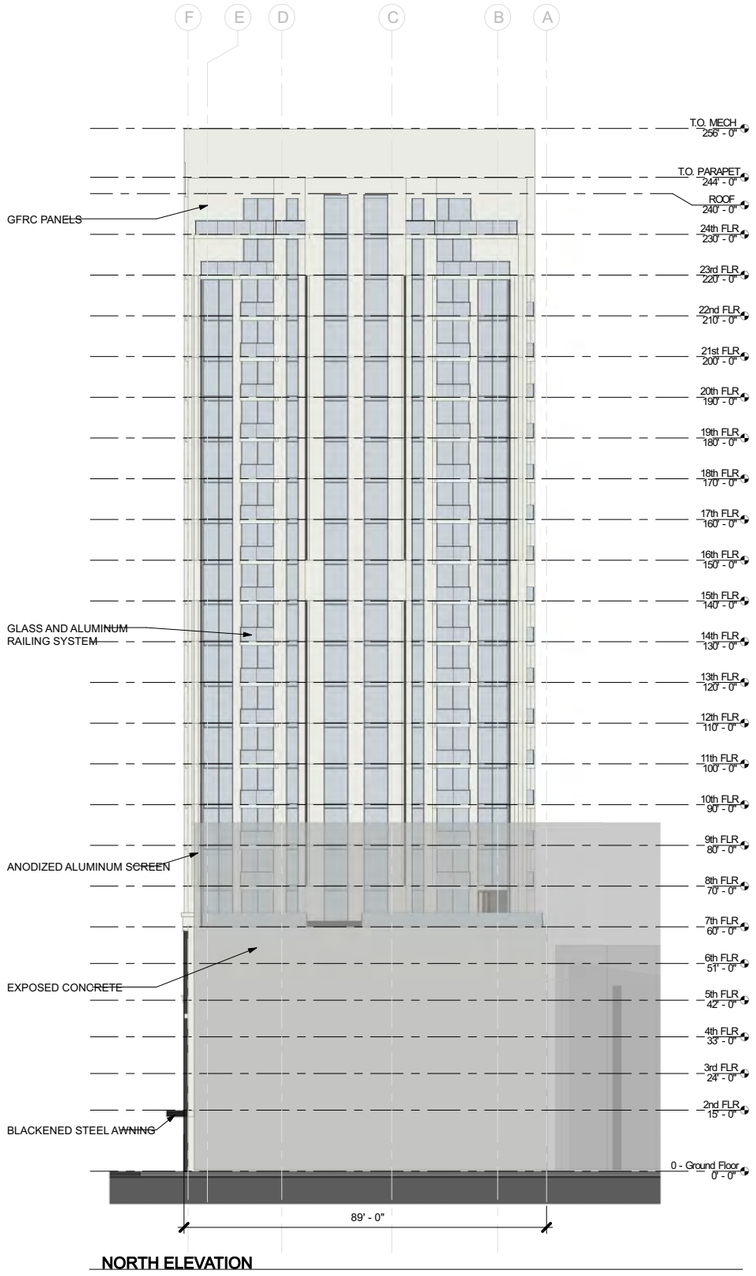
EAST ELEVATION - WEBSTER STREET

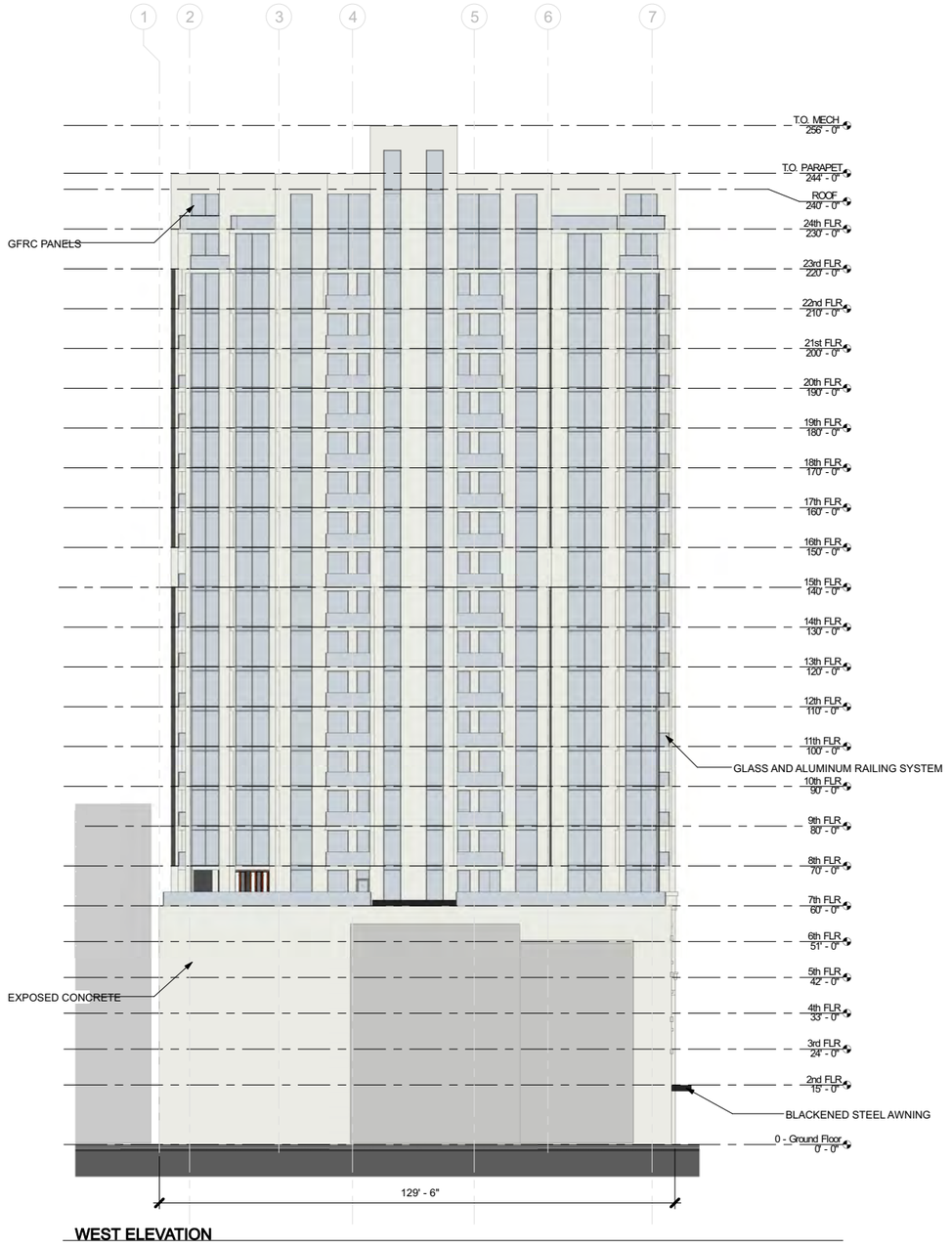
Source: Studio KDA, 2017

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Exhibit 7a
Building Elevations (South and East)

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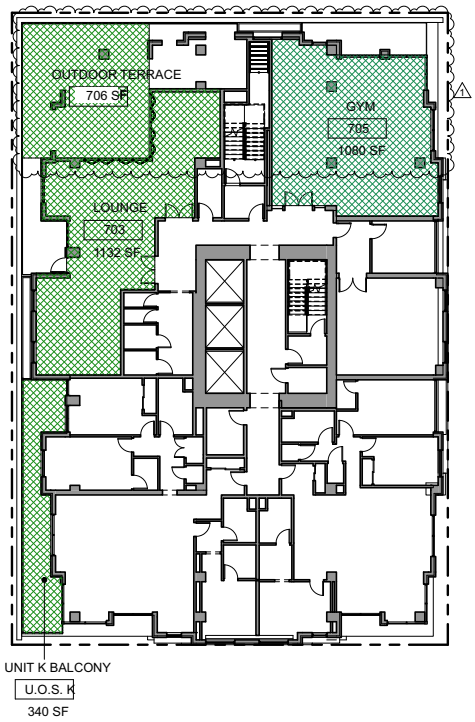


Source: Studio KDA, 2017

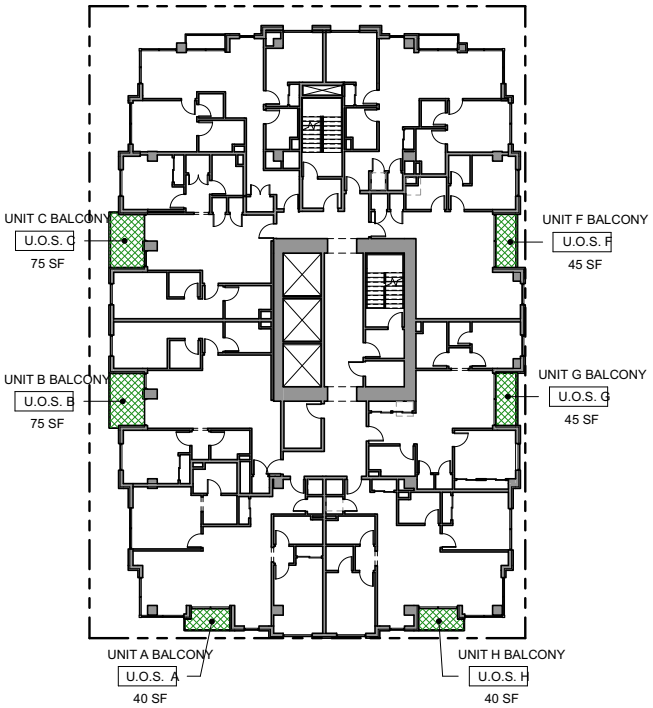
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Exhibit 7b
Building Elevations (North and West)

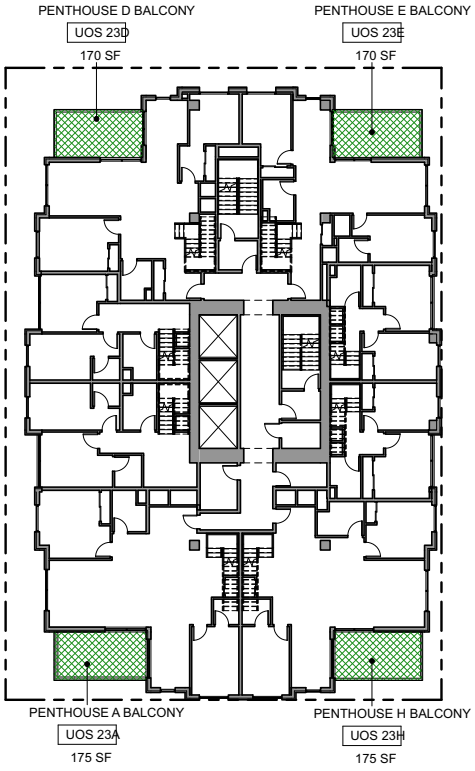
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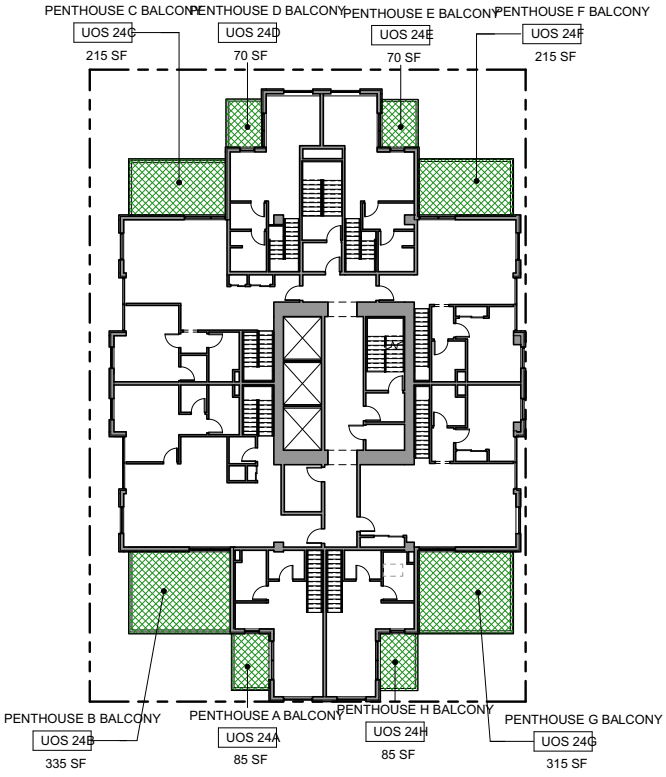
A. PROPOSED 7TH FL (AMENITIES)



B. PROPOSED 8TH - 22ND FLRS (TYPICAL RESIDENTIAL)



C. PROPOSED 23RD FLR (PENTHOUSE)



D. PROPOSED 24TH FLR (PENTHOUSE)

Source: Studio KDA, 2017

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Exhibit 8
Open Space Diagrams

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Building Design

The proposed building would consist of a rectangular shaped tower with ground floor commercial/retail use and aboveground parking; then transitioning into residential. Commercial/retail would occupy the first floor. The building exterior along the ground floor along Webster and 23rd would consist predominantly of glass windows. The building would be dominated by white cement plaster and powder coated aluminum and backlit acrylic lightbox material outside of floors 2–6 (parking floors), extending up to approximately 51 feet above grade. A transitional floor consisting of a mixture of residential, mechanical and amenities would extend a single floor (floor 7) to approximately 60 feet above grade. The remaining portion of the tower would be dedicated to residential use, and would extend up to approximately 240 feet to the roof. The residential floor exteriors would consist of white panels, window glass, and aluminum. Site materials are shown in detail on Exhibit 7, above.

At the intersection of Webster Street/23rd Street, the commercial space would be prominent along the street. The proposed residential tower does not include any setback from the street.

Activity/Employment

The proposed project would include a mix of residential and retail uses. Based on the generation rate established for the BVDSP area of 1.87 persons per household, the proposed project would have approximately 243 new residents. Assuming a standard generation rate of one employee per 500 square feet of retail space, the proposed project would generate approximately six jobs.

Project Construction

Construction activities would consist of demolition of the existing surface parking lot, excavation and shoring, foundation and below-grade construction, followed by construction of the building and finishing interiors. Project construction is expected to occur during a single phase over approximately 24 months, starting in February 2018 with completion by January 2020. Approximately 30 workers would be required in the early stages of construction and approximately 190 workers would be required at the peak of construction.

To construct the building foundation, approximately 40,000 cubic feet (or approximately 1,480 cubic yards) of soils would be excavated and hauled off-site. Minimal to no soils are anticipated to be imported to the site. Subsurface explorations of the site encountered

groundwater at approximately 15 feet below ground surface,[4] and groundwater generally follows the topographical gradient in the area, flowing to the south/southwest towards Lake Merritt.[5]

Project Approvals

The proposed project would require a number of discretionary actions and approvals, including without limitation:

Actions by the City of Oakland

- Planning Director—Regular Design Review and CEQA determination
- Public Works Tree Division—Issuance of tree removal permit.
- Building Department—Grading permit and other related on- and off-site work permits (e.g., public right-of-way improvements, and tie backs) as well as encroachment permits.

Actions by Other Agencies

- Bay Area Air Quality Management District (BAAQMD)—Issuance of permits for installation and operation of the emergency generator.
- Regional Water Quality Control Board (RWQCB)—Acceptance of a Notice of Intent to obtain coverage under the General Construction Activity Storm Water Permit, and Notice of Termination after construction is complete.
- East Bay Municipal Utility District (EBMUD)—Grant a Special Discharge Permit to discharge construction dewatering to the sanitary sewer and/or approval of new service requests and new water meter installations.

[4] P. Whitehead and Associates, Soil Report for 2300 Broadway/2301 Webster Street, Oakland California, May 16, 2004.

[5] Stellar Environmental Solutions, Phase I Environmental Site Assessment for 2305 Webster Street, Oakland California, April 2016.

III. BVDSP AND EIR

The BVDSP provides a framework for future growth and development in an approximately 95.5-acre area along Oakland's Broadway corridor between Grand Avenue and I-580. Although it does not propose specific private developments, the BVDSP establishes a Development Program to project the maximum level of feasible development that can reasonably be expected during the 25-year planning period (i.e., approximately 3.7 million square feet, including approximately 695,000 square feet of office space, 1,114,000 square feet of restaurant/retail space, 1,800 residential units, a new 180-room hotel, approximately 6,500 parking spaces, and approximately 4,500 new jobs). As described above, the BVDSP EIR analyzed the environmental impacts of adoption and implementation of the BVDSP, and where the level of detail available was adequate for analyzing potential environmental effects, the EIR provided project-level CEQA review for foreseeable and anticipated development.

On September 20, 2013, the City of Oakland released for public review the draft EIR for the BVDSP. The public review and comment period extended from September 20, 2013, through November 12, 2013. The Landmarks Preservation Advisory Board (LPAB) and the City of Oakland Planning Commission held hearings on the draft EIR, and comments received during the public review and comment period were addressed in the final EIR for the BVDSP. Prior to adoption of the final EIR, additional public hearings were held by both the LPAB and the Planning Commission. The final EIR was certified by the Planning Commission on May 21, 2014, and confirmed by the City Council on June 17, 2014.

The final EIR determined that impacts on the following resources would be less than significant, or would be reduced to a less than significant level with implementation of mitigation measures or compliance with City of Oakland SCAs: aesthetics; biology; geology, soils, and geohazards; hazardous materials; hydrology and water quality; land use, plans, and policies; population, housing, and employment; public services and recreational facilities; and utilities and service systems. The final EIR determined that implementation of the BVDSP would have significant unavoidable impacts related to the following environmental resources: wind and shadow, air quality, cultural resources, greenhouse gases (GHGs) and climate change, noise, and transportation. Because of the potential for significant unavoidable impacts, a Statement of Overriding Considerations with findings was adopted as part of BVDSP approval on May 21, 2014, and confirmed by the City Council on June 17, 2014. The City Council found that, for the significant and unavoidable impacts listed above, the BVDSP EIR provided the best balance between the City's goals and objectives and the BVDSP's benefits. In addition, the City Council made the following determinations:

- The BVDSP updates the goals and policies of the general plan and provides more detailed guidance for specific areas within the Broadway Valdez District;

- The BVDSP builds upon two retail enhancement studies, the Citywide Retail Enhancement Strategy and the companion Upper Broadway Strategy—A Component of the Oakland Retail Enhancement Strategy, which identified the City's need to reestablish major destination retail in Oakland as being critical to stemming the retail leakage and associated loss of tax revenue that the City suffers from annually. These reports also identified the Broadway Valdez District as the City's best opportunity to reestablish a retail core with the type of comparison shopping that once served Oakland and nearby communities and that the City currently lacks;
- The BVDSP provides a policy and regulatory framework to achieve one of the primary objectives: to transform the Plan Area into an attractive regional destination for retailers, shoppers, employers and visitors that serves, in part, the region's shopping needs and captures sales tax revenue for reinvestment in Oakland;
- The BVDSP could create employment opportunities (both short-term construction jobs as well as permanent jobs), increase revenues (sales, property, and other taxes), and promote spin-off activities (as Plan Area workers spend some of their income on goods in the Plan Area);
- The BVDSP Development Program promotes increased housing densities in proximity to employment-generating land uses that support City and regional objectives for achieving a jobs/housing balance and transit-oriented development;
- The BVDSP design guidelines will ensure that future development contributes to the creation of an attractive pedestrian-oriented district characterized by high-quality design and a distinctive sense of place; and
- The BVDSP identifies a series of needed and desired improvements related to transportation, affordable housing, historic resource preservation and enhancement, streetscape, plaza, parking, and utility infrastructure as well as regulatory tools, policies, and potential funding mechanisms to realize those improvements.

The Notice of Determination (NOD) for the BVDSP EIR was filed with the State Clearinghouse on June 18, 2014, and was not challenged. Therefore, the BVDSP EIR remains valid.

IV. SUMMARY OF FINDINGS

An evaluation of the proposed project is provided in the CEQA Checklist below. This evaluation concludes that the proposed project qualifies for an exemption/addendum from additional environmental review. The BVDSP EIR allows for the distribution of density and development types between categories and sub-areas, and accounted for the construction and operational impacts from the development proposed within the Plan Area. Any potential environmental impacts associated with the project's development were adequately analyzed and covered by the analysis in the BVDSP EIR. The proposed project would be required to comply with the applicable mitigation measures identified in the BVDSP EIR, as well as any applicable City of Oakland SCAs (see Attachment A, at the end of the CEQA Checklist). With implementation of the applicable mitigation measures and SCAs, the proposed project would not result in a substantial increase in the severity of significant impacts that were previously identified in the BVDSP EIR or any new significant impacts that were not previously identified in the BVDSP EIR.

In accordance with Public Resources Code Sections 21083.3, 21094.5, and 21166 and State CEQA Guidelines Sections 15183, 15183.3, and 15164, and as set forth in the CEQA Checklist below, the proposed project qualifies for an exemption/addendum because the following findings can be made:

- The proposed project would not result in significant impacts that (1) would be peculiar to the project or project site; (2) were not previously identified as significant project-level, cumulative, or off-site effects in the BVDSP EIR; or (3) were previously identified as significant but—as a result of substantial new information that was not known at the time the BVDSP EIR was certified—would increase in severity above the level described in the EIR. Therefore, the proposed project is exempt from further environmental review in accordance with Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183.
- The proposed project would not cause any new significant impacts on the environment that were not already analyzed in the BVDSP EIR or result in more significant impacts than those that were previously analyzed in the BVDSP EIR. The effects of the proposed project have been addressed in the BVDSP EIR, and no further environmental documents are required, in accordance with Public Resources Code Section 21094.5 and State CEQA Guidelines Section 15183.3.
- The analyses conducted and the conclusions reached in the BVDSP EIR that was certified by the Planning Commission on May 21, 2014, and confirmed by the City Council on June 17, 2014, remain valid, and no supplemental environmental review is required for the proposed project modifications. The proposed project would not cause new significant impacts that were not previously identified in the EIR or 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 the circumstances surrounding the original

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 that the proposed project would cause significant environmental impacts. Therefore, no supplemental environmental review is required beyond this addendum, in accordance with Public Resources Code Section 21166 and State CEQA Guidelines Section 15164.

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

Scott Miller, for 5-10-17

Darin Ranelletti **Date**
Environmental Review Officer

V. CEQA CHECKLIST

Overview

This CEQA Checklist provides a summary of the potential environmental impacts that may result from adoption and implementation of the BVDSP, as evaluated in the BVDSP EIR. Potential environmental impacts of development under the BVDSP were analyzed and covered by the BVDSP EIR, and the EIR identified mitigation measures and Standard Conditions of Approval (SCAs)[6] to address these potential environmental impacts.

This CEQA Checklist hereby incorporates by reference the BVDSP EIR discussion and analysis of all potential environmental impact topics; only those environmental topics that could have a potential project-level environmental impact are included. The EIR significance criteria have been consolidated and abbreviated in this CEQA Checklist for administrative purposes; a complete list of the significance criteria can be found in the BVDSP EIR.

This CEQA Checklist provides a determination of whether the proposed project would result in:

- Equal or Less Severity of Impact Previously Identified in BVDSP EIR;
- Substantial Increase in Severity of Previously Identified Significant Impact in BVDSP EIR; or
- 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 BVDSP EIR, the checkbox for Equal or Less Severity of Impact Previously Identified in BVDSP EIR is checked. Where the checkbox for Substantial Increase in Severity of Previously Identified Significant Impact in BVDSP EIR or New Significant Impact is checked, there are significant impacts that are:

- Peculiar to project or project site (pursuant to CEQA Guidelines Sections 15183 or 15183.3);

[6] These are Development Standards that are incorporated into projects as SCAs, regardless of a project's environmental determination, pursuant, in part, to CEQA Guidelines Section 15183. As applicable, the SCAs are adopted as requirements of an individual project when it is approved by the City, and are designed to, and will, substantially mitigate environmental effects. In reviewing project applications, the City determines which of the SCAs are applied, based on the zoning district, community plan, and the type(s) of permit(s)/approvals(s) required for the project. Depending on the specific characteristics of the project type and/or project site, the City will determine which SCA applies to each project.

- Not identified in the previous EIR (BVDSP EIR) (pursuant to CEQA Guidelines Sections 15183 or 15183.3), including off-site and cumulative impacts (pursuant to CEQA Guidelines Section 15183);
- Due to substantial changes in the project (pursuant to CEQA Guidelines Section 15162);
- Due to substantial changes in circumstances under which the project will be undertaken (pursuant to CEQA Guidelines Section 15162); or
- Due to substantial new information not known at the time the BVDSP EIR was certified (pursuant to CEQA Guidelines Sections 15162, 15183, or 15183.3).

The proposed project is required to comply with applicable mitigation measures identified in the BVDSP EIR, and with City of Oakland SCAs. The 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 BVDSP EIR or City of Oakland SCAs shall control.

Consistent with the requirements of CEQA, a determination of whether the project would have a significant impact has occurred prior to the approval of the proposed project and, where applicable, standard conditions of approval and/or mitigation measures in the BVDSP EIR have been identified that will mitigate them. 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.

Attachments

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

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

Attachment B: Project Consistency with Community Plans or Zoning, per CEQA Guidelines Section 15183

Attachment C: Infill Performance Standards, per CEQA Guidelines Section 15183.3

Attachment D: Criteria for Use of Addendum, per CEQA Guidelines Sections 15164 and 15162

Attachment E: Shadow Study for the 2305 Webster Street Mixed Use Residential Project

Attachment F: Wind Tunnel Study for the 2305 Webster Street Mixed Use Residential Project

Attachment G1: Air Quality Screening Analysis for the 2305 Webster Street Mixed Use Residential Project

Attachment G2: Health Risk Screening Analysis for the 2305 Webster Street Mixed Use Residential Project

Attachment H: Cultural Resources Supporting Material for the 2305 Webster Street Mixed Use Residential Project

Attachment I: Soils Report for 230 Broadway/2301 Webster Street, Oakland, California

Attachment J: Phase I Environmental Site Assessment

1. Aesthetics, Shadow, and Wind

Would the project:	Equal or Less Severity of Impact Previously Identified in BVDSP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in EIR	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 which 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 through 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	☒	☐	☐

Would the project:	Equal or Less Severity of Impact Previously Identified in BVDSP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in EIR	New Significant Impact
addressing the provision of adequate light related to appropriate uses; or			
e. Create winds that exceed 36 mph for more than one hour during daylight hours during the year. The wind analysis only needs to be done 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.	☒	☐	☐

Scenic Vistas, Scenic Resources, and Visual Character (Criterion 1a)

The BVDSP EIR determined that potential impacts to scenic vistas and resources, visual character, and lighting and glare from development under the BVDSP would be less than significant with implementation of SCAs, and that no mitigation measures were necessary. The Physical Height Model analyzed in the BVDSP EIR[7] represents the conceptual massing for projects to be developed under the BVDSP, and served as the basis for massing, view corridor, shadow, and wind analysis performed in the EIR. The EIR found that new structures would partially obstruct views of the sky, but that such changes would not represent a substantial adverse effect on views, because no views considered scenic or unique (as defined by CEQA) and no visual access to protected scenic resources (as defined by the General Plan) would be obstructed. Changes anticipated under the BVDSP would generally create a more pedestrian-oriented aesthetic in the Plan Area, and the Design Guidelines would ensure that development under the BVDSP would be compatible with the existing built form and architectural character of the Plan Area as a whole, and

[7] The Broadway Valdez Development Program represents the maximum feasible development that the City has projected can reasonably be expected to occur in the Plan Area over the next 25 years, and is therefore the level of development envisioned by the Specific Plan and analyzed in the BVDSP EIR. The Broadway Valdez Development Program, together with the Specific Plan height limits, maximum base heights, and step-back requirements inform the Physical Height Model, which provides the basis for analysis in the BVDSP EIR.

compatible with the distinctive visual character of individual areas. Development in the Plan Area will be required to comply with SCAs related to landscaping, street frontages, landscape maintenance, utility undergrounding, public right-of-way improvements, and lighting plans.

Shadow (Criteria 1b through 1d)

The BVDSP EIR determined that development under the BVDSP would result in less than significant impacts from shading, with the exception of potential shading on Temple Sinai, which is considered a historical resource. Temple Sinai is at 356 28th Street near the intersection with Webster Street. Under the BVDSP EIR, Mitigation Measure AES-4: Shadow Analysis, applies to the area bounded by Webster Street, 29th Street, Broadway, and 28th Street to reduce shadow impacts. Even with implementation of Mitigation Measure AES-4, the EIR conservatively determined that impacts may remain significant and unavoidable. Development outside this area under the BVDSP was determined to result in less than significant shadow impacts. To address potential cumulative impacts, under the BVDSP EIR, Mitigation Measure AES-6, which requires implementation of Mitigation Measures AES-4 and AES-5 (described below), applies to projects bounded by the streets listed above to address significant cumulative aesthetics and wind impacts. The EIR conservatively concluded that, even with implementation of Mitigation Measure AES-6, cumulative shadow impacts may remain significant and unavoidable for some projects.

Wind (Criterion 1e)

The BVDSP EIR determined that development under the BVDSP that has a height of 100 feet or greater, and is in the portion of the Plan Area designated as Central Business District (which extends north from downtown to 27th Street), could result in adverse wind conditions. Under the BVDSP EIR, Mitigation Measure AES-5: Wind Analysis, applies to those projects in the Central Business District portion of the Plan Area that are over 100 feet in height. Even with implementation of Mitigation Measure AES-5, the EIR conservatively determined that impacts may remain significant and unavoidable. To address potential cumulative impacts, under the BVDSP EIR, Mitigation Measure AES-6, which requires implementation of Mitigation Measures AES-4 and AES-5, applies to those same projects and addresses significant cumulative wind and aesthetics impacts. Even with implementation of Mitigation Measure AES-6, the EIR conservatively determined that cumulative impacts may remain significant and unavoidable for some projects.

Project Analysis and Conclusion

Scenic Vistas, Scenic Resources, and Visual Character.

Pursuant to the Design Guidelines, development within the Plan Area should contribute to the creation of a coherent, well-defined, and active public realm that supports pedestrian activity and social interaction. The proposed project meets this guideline by including

streetscape improvements that could include new street trees along Webster Street/23rd Street, street furniture, and bike racks for retail parking. The proposed project requires design review approval, pursuant to Section 17.101C.020 of the City's Planning Code. As part of the design review process, the project will be reviewed by the City to ensure consistency with the applicable BVDSP Design Guidelines. The design review process will ensure the project would be consistent with the BVDSP standards and guidelines related to aesthetics, compatible with the existing built form and architectural character of the Plan Area as a whole, and compatible with the distinctive visual character of individual areas.

Consistent with the findings of the BVDSP EIR, the project's potential impacts to scenic vistas, scenic resources, visual character, and light and glare would be less than significant with implementation of the SCAs, as the project is consistent with the BVDSP EIR.

Shadow. The project is not within the area identified in the BVDSP EIR as affecting Temple Sinai. Pursuant to the City of Oakland CEQA Thresholds of Significance Guidelines and the analysis contained in the BVDSP EIR, the proposed project requires a shadow analysis to evaluate the potential shading from the project and other past, present, and reasonably foreseeable projects (e.g., potential cumulative shading impacts) on nearby CEQA Historic Resources identified in the BVDSP EIR on solar collectors and on public or quasi-public parks, lawns, gardens or open spaces. A shadow analysis has been prepared for the project (see Attachment E), which shows shadows that would be cast by the building at 9:00 a.m., 12:00 p.m., and 3:00 p.m. for the summer solstice (June 21st), spring/fall equinoxes (March 20th and September 22nd), and winter solstice (December 21st), based on City of Oakland significance threshold criteria.

The shadow analysis indicated that the proposed project would cast new shadow on four properties listed under the City of Oakland historical register; 415 24th Street, 2346 Valdez Street, 2333 Harrison Street and 200 Grand Avenue. Two of these properties, 2346 Valdez Street and 2333 Harrison Street, were identified in Table 4.4-1 and 4.4-2 of the BVDSP EIR as CEQA Historic Resources. New shadow would be cast on the rooftop and eastern street façade of 415 24th Street in the morning from mid-October through late February starting as early as 9:45 am and remaining until as late as 11:45 am and the rooftop of 2333 Harrison Street in the late afternoon (after 6:15 pm) from April to May and again from July to August. New shadow would also be cast on the rooftop and western and southern street façades of 2346 Valdez Street, in the afternoon (around 3–4 pm) for approximately 1 hour from October to November and again from February to March, and on a small portion of the western façade of 200 Grand Avenue, in the late afternoon after approximately 7:15 pm from early June through mid-July. The proposed project would not cast shadows on any solar collectors (see Attachment E), and would therefore not substantially impair the function of a building using passive solar heat collection, solar collectors for hot water heating, or photovoltaic solar collectors.

The proposed project would cast new shadow on grassy areas in Adam's Park, which surrounds the Veteran's Memorial Building at 200 Grand Avenue, in the late afternoon/early evening (after 7:05 pm) from early May through mid-August. Given that new shading of the park by the project would occur in a small grassy area for only a little over an hour in the late afternoon, it would not substantially affect or change the use of the park.[8]

The shadow analysis prepared for this project (see Attachment E) also includes a cumulative shadow analysis from other future projects in the vicinity that are under review but have not been constructed, including 2100 Telegraph Avenue, 2270 Broadway, 2302 Valdez Street, 2400 Valdez Street, and the 24th & Harrison project. Some of the individual projects discussed above would shade historic resources. However, the proposed project would not lead to greater impacts on any historic resources, solar collectors or parks and open spaces than identified in the BVDSP EIR when considered cumulatively.

The BVDSP EIR found that even with implementation of Mitigation Measure AES-4, potential shadow impacts cannot be guaranteed to be reduced to a less than significant level and therefore the impact would remain conservatively significant and unavoidable. The proposed project would not cause a new significant impact related to shading as defined in the BVDSP EIR, nor would it substantially increase the severity of impacts identified in the BVDSP EIR.

Wind. The proposed project is located in the Central Business District and would be approximately 240 feet in height as measured to the roof, therefore, BVDSP EIR Mitigation Measure AES-5: Wind Analysis would apply. Consistent with the mitigation measure, a detailed wind study was prepared for the proposed project to evaluate its wind effects.

As shown in the wind study prepared by RWDI and included as Attachment F to this document, wind speeds will not exceed the hazard criterion of 36 miles per hour for more than 1 hour during daylight hours in any of the test locations under any of the 3 configurations tested. As shown in Attachment F, 38 grade level locations were tested under three tested configurations. Those configurations included (1) no project (i.e., existing site conditions), (2) proposed project (i.e., 2305 Webster, with existing and approved surrounding buildings), and (3) cumulative project (i.e., 2305 Webster, with existing, approved and anticipated future surrounding buildings). Under all scenarios, the wind hazard criterion was not exceeded.

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[8] The latest sunset from May to August in Oakland in 2016 was at 8:35 pm ("Oakland, CA, USA-Sunrise, Sunset, and Daylength," timeanddate.com, accessed October 26, 2016, https://www.timeanddate.com/sun/usa/oakland?month=6).

Therefore, based on an examination of the analysis, findings, and conclusions in the BVDSP EIR, implementation of the proposed project would not substantially increase the severity of the significant impacts identified in that report, nor would it result in new significant impacts related to aesthetics, shadows, or wind that were not identified in the BVDSP EIR.. The proposed project would be required to implement SCAs related to graffiti control, landscaping, landscape maintenance, street frontages, and lighting plans, as identified in Attachment A at the end of the CEQA Checklist (SCA-AES-1:*Graffiti Control*, SCA-AES-2: *Landscape Plan*, and SCA-AES-3: *Lighting*).

2. Air Quality

Would the project:	Equal or Less Severity of Impact Previously Identified in BVDSP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in EIR	New Significant Impact
a. During project construction result in average daily emissions of 54 pounds per day of ROG, NO_x, or $PM_{2.5}$ or 82 pounds per day of PM_{10}; during project operation result in average daily emissions of 54 pounds per day of ROG, NO_x, or $PM_{2.5}$, or 82 pounds per day of PM_{10}; result in maximum annual emissions of 10 tons per year of ROG, NO_x, or $PM_{2.5}$, or 15 tons per year of PM_{10}; or	☒	☐	☐
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 (a) 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 $PM_{2.5}$ 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 $PM_{2.5}$ 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 $PM_{2.5}$ of greater than 0.8 microgram per cubic meter.	☒	☐	☐

Construction and Operational Emissions (Criterion 2a)

The BVDSP EIR determined that construction activities associated with development of projects under the BVDSP would generate air emissions from the use of heavy construction equipment; vehicle trips hauling materials, construction workers traveling to

and from the project sites, and application of architectural coatings, such as paints; and would result in significant impacts. An SCA related to construction air pollution controls (hereafter referred to as SCA-AIR-1: *Construction-Related Air Pollution Controls* [*Dust and Equipment Emissions*]), along with Recommended Measure AIR-1, would reduce emissions from construction equipment, control fugitive dust, and reduce emissions from architectural coatings. Even with implementation of the SCA and Recommended Measure AIR-1, the EIR conservatively estimated construction emissions would exceed the BAAQMD daily significance thresholds for reactive organic gases (ROG), resulting in a significant and unavoidable impact.

The BVDSP EIR also determined operational activities associated with development in the Plan Area would result in an increase in criteria air pollutant and precursor emissions from mobile on-road sources and on-site area sources, such as natural gas combustion for space and water heating and landscape maintenance, which would have a significant impact. Operational emissions of ROG, oxides of nitrogen (NO_x), and particulate matter less than or equal to 10 microns in diameter (PM_{10}) would exceed significance thresholds. An SCA that requires the implementation of Parking and Transportation Demand Management (TDM) would reduce vehicular trips and operational emissions. Recommended Measure AIR-2 includes additional measures that should be considered for larger projects that would also reduce emissions of criteria air pollutants. Even with implementation of the SCA and Recommended Measure AIR-2, the EIR concluded this impact would conservatively remain significant and unavoidable for emissions of ROG, NO_x, and PM_{10}.

Toxic Air Contaminants (Criterion 2b)

The BVDSP EIR determined that development under the BVDSP could generate substantial levels of Toxic Air Contaminants (TACs), resulting in significant impacts from construction activities and project operations. Implementation of the City's SCA for construction-related air pollution controls would reduce health risks to sensitive receptors from temporary construction emissions of diesel particulate matter in accordance with recommendations from the BAAQMD's *CEQA Air Quality Guidelines*.[9] As described under SCA-AIR-1: *Construction-Related Air Pollution Controls* [*Dust and Equipment Emissions*]), basic controls for construction emissions would be implemented for all projects, and enhanced controls would be implemented for projects that involve 114 or more single-family dwelling units, 240 or more multi-family units, nonresidential uses that exceed the applicable screening size listed in the BAAQMD's CEQA Guidelines, a demolition permit, simultaneous occurrence of more than two construction phases, extensive site

[9] BAAQMD, 2012. *CEQA Air Quality Guidelines*. Updated May.

preparation, or extensive soil transport. Even with implementation of the SCA for construction-related air pollution controls, the BVDSP EIR conservatively determined that impacts from TAC emissions during construction would remain significant and unavoidable.

New operational sources, such as backup diesel generators, could result in significant impacts on new and existing receptors. SCAs would reduce potential air quality impacts related to TACs by reducing construction source impacts on new and existing receptors, and requiring a Health Risk Assessment of surrounding off-site sources on new on-site sensitive receptors. The EIR also identified Mitigation Measure AIR-4: Risk Reduction Plan, which would reduce the impacts associated with new operational sources on existing sensitive receptors. Even with the SCA and Mitigation Measure AIR-4, the EIR conservatively determined that these impacts would remain significant and unavoidable.

Project Analysis and Conclusion

Construction and Operational Emissions (Criterion 2a)

The proposed project would be up to 239,000 square feet in size on an approximately 0.3-acre lot, including up to 130 residential units and approximately 3,000 square feet of retail. The BVDSP EIR allows for the distribution of density and development type between categories and sub-areas as long as such development conforms to the general traffic generation parameters established by the Plan. The proposed project conforms to the traffic generation parameters analyzed in the BVDSP EIR, as described below in Section 13, Transportation and Circulation; therefore, the BVDSP EIR accounted for the construction and operational emissions from the development proposed on the project site within its analysis. The proposed project would be required to comply with applicable SCAs related to parking demand and construction and operation source emissions, and Recommended Measures AIR-1 (to reduce project construction emissions).

Because the proposed project would include a demolition permit and the potential simultaneous occurrence of construction phases (e.g., grading, building construction, and paving), it would be required to implement both the basic and enhanced controls for emissions of dust and equipment exhaust under SCA-AIR-1*: Construction-Related Air Pollution Controls (Dust and Equipment Emissions)* to reduce emissions of criteria air pollutants and TACs during construction. The proposed project would also implement BVDSP EIR Recommended Measure AIR-1 to further reduce construction emissions.

Toxic Air Contaminants (Criterion 2b)

Health Risks from Project Construction to Existing Receptors

Construction emissions associated with the proposed project would not result in a more severe impact than what was previously disclosed in the BVDSP EIR. The BVDSP EIR does

not indicate that an additional project-level analysis of construction-related health risks is necessary. There is no evidence that the proposed project would have peculiar or unusual impacts or impacts that are new or more significant than previously analyzed in the BVDSP EIR. Moreover, the project site's proximity to sensitive receptors is typical of other project sites in the BVDSP area and other urban areas. Therefore, there would be nothing unique or peculiar about the proposed project's proximity to sensitive receptors. Consequently, the analysis and conclusions of the BVDSP EIR are still valid for this proposed project.

Nevertheless, a project-level, construction-related health risk assessment (HRA) was conducted to estimate risks to nearby receptors (see Attachment G.2). The analysis determined that health risk from project construction to nearby receptors would be less than project-level significance thresholds with the implementation of subsection (w) of SCA AIR-1, which requires construction equipment to be equipped with Best Available Control Technology and meet the California Air Resources Board's most recent certification standard.

Projects under the BVDSP EIR are required to implement subsections (w) and (x) of SCA-AIR-1 that would reduce construction-related diesel particulate matter emissions by requiring equipment and diesel trucks to be equipped with Best Available Control Technology and meet the California Air Resources Board's most recent certification standard. In order to comply with subsections (w) and (x) of SCA-AIR-1, the project sponsor would be required to ensure that construction equipment meet Tier 4 emissions standards, which can reduce emissions of diesel particulate matter by at least 85 percent relative to equipment without emission control technologies installed.[10] SCA-AIR-1 also minimizes construction health risks by requiring the following: exposed surfaces be watered; trucks hauling sand, soil, and other loose materials be covered; visible dirt track-out be removed daily; new roads, driveways, sidewalks be paved within 1 month of grading or as soon as possible, stockpiles be enclosed, covered, and watered twice daily; vehicle speeds on unpaved roads be limited; and idling time be limited. SCA-AIR-1 also minimizes diesel emissions by minimizing idling under subsections (g) and (h); ensuring that construction equipment is running in proper condition under subsection (i); specifying that portable equipment would be powered by electricity if available under subjection (j); requiring that equipment meet emissions and performance requirements under subsection (u); requiring the use of low volatile organic compound coatings under subjection (v). Beyond SCA-AIR-1, there are no additional feasible control measures available to further reduce construction-related diesel particulate matter emissions.

[10] California Air Resources Board, 2015. *Frequently Asked Questions; Regulation for In-Use Off-Road Diesel-Fueled Fleets*. Revised December.

Health Risks to Project Receptors

The proposed project would introduce new sensitive receptors (residents) to the project site, and is within 1,000 feet of several major roadways with significant traffic (at least 10,000 vehicles per day) and other sources of TACs (backup generators). The proposed project would also include an emergency backup generator, introducing a new stationary source of TACs.

To assess the impacts of nearby sources of TACs on the proposed project's new residential sensitive receptors, and the proposed project's stationary source emissions of TACs on adjacent sensitive receptors, a screening level analysis was conducted (see Attachment G.2). Using conservative assumptions, the screening level analysis found that that the cumulative health risks to the project's sensitive receptors from existing and reasonably foreseeable future sources of TACs would be less than the City's cumulative health risk thresholds (cancer risk of 100 in a million, chronic hazard index [HI] of 10, and fine particulate matter [$PM_{2.5}$] concentration of 0.8 micrograms per cubic meter).[11]

The screening level analysis found that the health risks to existing sensitive receptors from the project's stationary source, when combined with health risks from existing and reasonably foreseeable future sources of TACs, would be less than the City's cumulative health risk thresholds.[12] This is also below the threshold to prepare a Health Risk Assessment or adopt further risk reduction strategies to reduce the exposure of existing sensitive receptors to TACs under SCA-AIR-3: *Stationary Sources of Air Pollution (Toxic Air Contaminants).)*

Therefore, based on an examination of the analysis, findings, and conclusions of the BVDSP EIR, implementation of the proposed project would not substantially increase the severity of significant impacts identified in the BVDSP EIR, nor would it result in new significant impacts related to air quality that were not identified in the BVDSP EIR. The proposed project would be required to implement SCAs related to construction-related emissions controls and development, and a TDM, as identified in Attachment A at the end of the CEQA Checklist (SCA-AIR-1: *Construction-Related Air Pollution Controls [Dust and*

[11] While this is below the City's threshold to prepare a Health Risk Assessment or adopt further risk reduction strategies to reduce the exposure of the project's sensitive receptors to TACs under SCA-AIR-2: Exposure to Air Pollution (Toxic Air Contaminants), a Health Risk Assessment was prepared (see Attachment H).

[12] This is below the threshold to prepare a Health Risk Assessment or adopt further risk reduction strategies to reduce the exposure of existing sensitive receptors to TACs under SCA-AIR-3: Stationary Sources of Air Pollution (Toxic Air Contaminants) and Mitigation Measure AIR 6: Risk Reduction Plan.

Equipment Emissions], SCA-TRANS-4: *Transportation and Parking Demand Management [TDM] Plan Needed*).

SCA-AIR-2**:** *Exposure to Air Pollution (Toxic Air Contaminants),* SCA-AIR-3: *Stationary Sources of Air Pollution (Toxic Air Contaminants)*, and Mitigation Measure AIR-4: *Risk Reduction Plan*, could potentially apply to the project; however, as described above, the screening level analyses found that the proposed project would be below the applicable thresholds and no further action is required under these SCAs.

In addition, Recommended Measures AIR-1 and AIR-2 from the BVDSP EIR, listed below, would apply to the proposed project.

Recommended Measure AIR-1: During construction, the project sponsor shall require the construction contractor to use prefinished materials and colored stucco, as feasible.

3. Biological Resources

Would the project:	Equal or Less Severity of Impact Previously Identified in BVDSP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in EIR	New Significant Impact
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 and Wildlife or U.S. Fish and Wildlife Service; Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service; 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; 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;	☒	☐	☐
b. Fundamentally conflict with the City of Oakland Tree Protection Ordinance (Oakland Municipal Code [OMC] 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.	☒	☐	☐

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

As described in the BVDSP EIR, the Plan Area is in and is surrounded by a fully developed urban environment, and impacts of development on biological resources under the BVDSP would be less than significant. Few special-status animals are present in the Plan Area, and no aquatic habitats that could support migratory fish or birds are present. In addition, very little natural vegetation exists; and because this vegetation is not connected to other nearby natural habitats, it would not constitute a wildlife corridor. There are no natural sensitive communities in the Plan Area. The nearest riparian habitat is Glen Echo Creek corridor near Adams Park, where the stream daylights for a short distance before flowing under Grand Avenue and into Lake Merritt. Potential increases in transmittal of hazardous materials from construction activities via runoff from the impermeable surfaces of the site could result in adverse impacts to Glen Echo Creek. The EIR identified landscape trees in the Plan Area as potential nursery sites for nesting birds. Development in the Plan Area will be required to comply with SCAs related to removal and replacement of trees, including trees on creekside properties; tree protection during construction; and protection of nesting birds during the breeding season, which would protect natural resources from potential degradation that could result from construction of development projects under the Plan Area. SCAs pertaining to landscaping and vegetation management on creekside properties; protection of creeks from construction vibration and dewatering; hazardous materials management; stormwater and erosion control, will ensure that development under the BVDSP is in compliance with all aspects of the Creek Protection Ordinance and reduce the potential impacts on water quality, , and minimize potential indirect impacts from pollution in Glen Echo Creek.

Project Analysis and Conclusion

The approximately 0.30-acre proposed project site, currently in use as a surface parking lot, is in a highly urbanized and built up environment and is bounded to the north by a public parking structure, to the west by a multi-family housing development, to the east by surface level parking and a restaurant, and to the south by a surface level parking lot and an office building. There is also a 21 story multi-family housing development directly to the southwest of the proposed project site.

The project site is entirely covered by impervious surfaces. The closest riparian habitat is Glen Echo Creek. However, the Creek is not within the boundary of the proposed project site. This project is not expected to increase stormwater runoff because the surrounding area is already fully developed with impervious surfaces. Stormwater would be treated consistent with C.3 requirements for on-site treatment, including treatment and storage tanks within the proposed building.

Implementation of the proposed project would not result in any net change in the amount of impervious surface on the project site. The proposed project may replace the existing

street trees and plant additional trees along the street frontages. The proposed project would incorporate SCA-BIO-1: *Tree Removal During Bird Breeding Season*, referenced above, which would ensure that the tree removal impacts to nesting birds would not exceed the level of severity identified in the BVDSP EIR. The project sponsor would incorporate SCA-BIO-2*: Tree Removal Permit*, if any on-site trees require removal.

Therefore, based on an examination of the analysis, findings, and conclusions in the BVDSP EIR, implementation of the proposed project would not substantially increase the severity of the significant impacts identified in that EIR, nor would it result in new significant impacts related to biological resources that were not identified in the BVDSP EIR. The BVDSP EIR did not identify any mitigation measures related to biological resources, and none would be needed for the proposed project. SCAs related to tree removal, tree permits, City of Oakland Tree Protection Ordinance, and construction activity and operations, identified in Attachment A at the end of the CEQA checklist, would apply to the proposed project (SCA-BIO-1: *Tree Removal During Bird Breeding Season and* SCA-BIO-2: *Tree Removal Permit*).

4. Cultural Resources

Would the project:	Equal or Less Severity of Impact Previously Identified in BVDSP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in EIR	New Significant Impact
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 **and** that justify its inclusion on, or eligibility for inclusion on an historical resource list (including the California Register of Historical Resources, the National Register of Historic Places, Local Register, or historical resources survey form (DPR Form 523) with a rating of 1-5);	☒	☐	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5;	☒	☐	☐
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or	☒	☐	☐
d. Disturb any human remains, including those interred outside of formal cemeteries.	☒	☐	☐

Historical Resources (Criterion 4a)

The BVDSP EIR found that development under the BVDSP could result in the physical demolition, destruction, relocation, or alteration of historical resources that are listed in or may be eligible for listing in the federal, state, or local registers of historical resources, which would be considered a significant impact. The Plan Area contains 20 individual properties, including two in an Area of Primary Importance,[13] that are considered historical resources for CEQA purposes. There are also many older buildings that possess architectural merit, either in Areas of Secondary Importance (ASIs)[14] or standing alone, that contribute to the variety and texture of the Plan Area.

The EIR identified Mitigation Measure CUL-1 to reduce the impacts to historical resources throughout the Plan Area, as well as the site-specific impacts associated with the demolition of individual historical resources. In addition, the EIR concluded that incompatible new construction immediately adjacent to historical resources, as well as inappropriate reuse of such resources, could result in significant impacts in the Plan Area. Specifically, development on parcels across Webster Street to the northeast of Temple Sinai could extend shadows far enough south to shade the temple's stained-glass windows during the early morning hours, resulting in significant impacts. Even with implementation of Mitigation Measure AES-4, Shadow Analysis, described in Section 1 above, Aesthetics, Shadow and Wind, the EIR conservatively determined shadow impacts may remain significant and unavoidable.

The BVDSP EIR determined that significant cumulative impacts to historical resources could result from development of projects under the BVDSP, and identified Mitigation Measure CUL-5, which would require implementation of Mitigation Measure CUL-1. However, even with implementation of Mitigation Measure CUL-5, the EIR determined that cumulative impacts would remain significant and unavoidable.

In addition to the mitigation measures described above, the BVDSP EIR identified Oakland Municipal Code Section 17.136.075, Regulations for Demolition or Removal of Designated Historic Properties and Potentially Designated Historic Properties, as well as SCAs related to property relocation instead of demolition, and protection of historic structures from vibration impacts during adjacent construction projects, which will also address impacts to historical resources.

[13] Area of Primary Importance is an area or district that appears eligible for the National Register of Historic Places, and is considered a historical resource under CEQA.

[14] Area of Secondary Importance is an area or district that is of local interest, but is not eligible for the National Register of Historic Places and is not considered a historical resource under CEQA.

Even with the above mitigation measures and SCAs, impacts to historical resources would remain significant and unavoidable.

Archaeological and Paleontological Resources (Criteria 4b and 4c)

No known archaeological resources have been recorded in the Plan Area; however, the EIR revealed that the Plan Area is potentially sensitive for archaeological and buried resources, including Native American artifacts and sites, that are not visible due to urban development. The EIR determined that implementation of an SCA, which would ensure that resources are recovered and that appropriate procedures are followed in the event of accidental discovery, would minimize potential risk of impact to archaeological resources to a less than significant level.

The Plan Area was also identified as having low to moderate paleontological sensitivity, and it is possible that fossils would be discovered during excavation in the Plan Area. Implementation of an SCA, which would require a qualified paleontologist to document a discovery, and monitor that appropriate procedures be followed in the event of a discovery, would ensure that the potential impact to fossils discovered in the rock units would be less than significant.

Human Remains (Criterion 4d)

Although the BVDSP EIR did not identify any locations of buried human remains in the Plan Area, the inadvertent discovery of human remains during ground-disturbing activities cannot be entirely discounted. In the event that human remains are discovered during excavation, implementation of an SCA which would ensure that the appropriate procedures for handling and identifying the remains are followed would reduce impacts to a less than significant level.

Project Analysis and Conclusion

Historic Architectural Resources. There are no historical resources on the proposed project site, and the project site is not within any of the Areas of Primary Importance (API) or Areas of Secondary Importance (ASI), as identified by the BVDSP EIR. As detailed under the "Aesthetics, Shadow and Wind" section, the proposed project would not cast a shadow on any historic resources in such a way that it would materially impair the physical characteristics of the resources that convey their historical significance and that justify their inclusion on or eligibility for listing in any federal, state or local registers. The proposed project would also not cast a shadow on Temple Sinai. Furthermore, demolition of the existing surface parking lot would not result in a significant impact and Mitigation Measures CUL-1 and CUL-5, as outlined in the BVDSP EIR would not apply.

Archaeological and Paleontological Resources and Human Remains. The proposed project would entail excavation below grade. Deep excavations for building foundations

associated with adoption of and development under the Specific Plan may disturb these geologic units of moderate prehistoric archaeological sensitivity. Furthermore, the Plan Area was classified as having low to moderate paleontological sensitivity of underlying geological units. It is always possible that subsurface excavation activities may encounter previously undiscovered resources.

As shown in Figure 4.4-1 of the BVDSP EIR, the geology at the project site is within Pleistocene bay terrace deposits, and as such, the SCAs related to archaeological, paleontological resources, and human remains would apply to the proposed project. Any resources present in these deposits are likely to have been obscured by recent development, and further, the SCAs related to archaeological, paleontological resources, and human remains are considered adequate to ensure that subsurface materials are dealt with according to regulatory guidance and would minimize the potential risk of impact to archaeological resources to the maximum extent practicable.

Tribal Cultural Resources. Assembly Bill 52 required an update to Appendix G of the CEQA Guidelines to include questions related to impacts to tribal cultural resources. Changes to Appendix G were approved by the Office of Administrative Law on September 27, 2016, and OPR subsequently updated Appendix G to include the approved questions and language. Therefore, an analysis of potential impacts to tribal cultural resources is included here.

As defined in Public Resources Code section 21074, a tribal cultural resource is either a site; feature; place; cultural landscape geographically defined in terms of the size and scope of the landscape; sacred place; or object with cultural value to a California Native American tribe. A significant impact would result if the project would cause a substantial adverse change in the significance of a tribal cultural resource. The NAHC has identified no sacred lands within or near the Plan Area or the project site. Further, the NAHC identified individuals and organizations as representatives of Native American peoples traditionally associated with the area surrounding for the City of Oakland, and on February 9, 2017 letters were sent to each person on the NAHC list requesting input; however, no indication that the site may contain Native American cultural resources was received.[15] The project site is located in a highly urbanized context and is currently developed as a surface parking lot. As such, given the absence of evidence of tribal cultural resources on the site or in the surrounding area, the potential for the project to cause a substantial adverse change in the significance of a tribal cultural resource is low. In the event that as

[15] Please see Attachment H to this Initial Study for a full record of correspondence with the NAHC and tribal representatives.

yet undiscovered resources are encountered, the SCAs related to impacts to tribal cultural resources would be less than significant.

Therefore, overall, an examination of the analysis, findings, and conclusions of the BVDSP EIR finds that implementation of the proposed project would not substantially increase the severity of the significant impacts that were identified in the BVDSP EIR, nor would it result in new significant impacts related to cultural resources that were not identified in the BVDSP EIR. The proposed project would be required to implement SCAs related to the discovery of archaeological and paleontological resources during construction and the discovery of human remains during construction, as identified in Attachment A at the end of the CEQA Checklist (SCA-CUL-1*: Archaeological and Paleontological Resources—Discovery During Construction*, SCA-CUL-2: *Human Remains—Discovery During Construction*), which would reduce any potential impacts to a less than significant level.

5. Geology, Soils, and Geohazards

Would the project:	Equal or Less Severity of Impact Previously Identified in BVDSP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in EIR	New Significant Impact
a. Expose people or structures to substantial risk of loss, injury, or death involving: • Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map or Seismic Hazards Map issued by the State Geologist for the area or based on other substantial evidence of a known fault; • Strong seismic ground shaking; • Seismic-related ground failure, including liquefaction, lateral spreading, subsidence, collapse; or • Landslides;	☒	☐	☐
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.	☒	☐	☐

Seismic Hazards, Expansive Soils, and Soil Erosion (Criterion 5a and 5b)

The BVDSP EIR determined that very strong ground shaking and associated liquefaction in certain soils could expose people to injury or harm during earthquakes. In addition, the soils in the Plan Area are largely composed of artificial fill material overlying natural deposits of Bay Mud. The southern half of the Plan Area is mostly built on a marine terrace of silty mudstone. The BVDSP identified the artificial fills and expansive soils underlying the Plan Area as presenting a potential hazard, due to the possibility of shrink-swell behavior and soil compression.

Development proposed under the BVDSP would avoid and minimize potential geologic impacts through compliance with local and state regulations governing design and construction practices, such as the Seismic Hazards Mapping Act (in liquefaction hazard zones) and the California Building Code. Implementation of SCAs that require the preparation of soils and geotechnical reports specifying generally accepted and

appropriate engineering techniques would reduce potential impacts to less than significant levels.

The BVDSP EIR identified no impacts related to substantial soil erosion or loss of topsoil, because the Plan Area is in a developed urban area that is paved or landscaped, and served by a storm drain system. In addition, SCAs would minimize erosion and sedimentation.

Project Analysis and Conclusion

The proposed project would excavate approximately 40,000 cubic feet (or approximately 1,480 cubic yards) of soil to construct the building foundation. Projects within the City that propose to excavate more than 500 cubic yards of soil are required to obtain a grading permit. The grading permit would require the proposed project to comply with local and state construction requirements, including the California Building Code, in the design and building of the proposed project.

The BVDSP EIR found no significant impact with regard to fault rupture because the nearest active fault is 2 miles away from the BVDSP Plan Area, and no active faults occur across the Plan Area.[16] The proposed project could experience strong to violent ground shaking because of seismic activity on a regional fault. According to the ABAG Bay Area Hazards Map, Alameda County has been categorized under the "Very Strong" and "Violent" shaking category.[17] The project would be required to comply with *SCA-GEO-1: Construction-related Permits*, prior to approval of a construction-related permit.

The proposed project site is not within a hazard zone for earthquake-induced landslides,[18] and is has a low susceptibility to liquefaction, according to the Association of Bay Area Governments (ABAG) Liquefaction Susceptibility map.[19] Further, a soils report prepared for the site (Attachment I) found firm brown clayey sand underlain by medium dense yellow sandy clay on the site and concluded that because of dense underlying material, liquefaction of the foundation soils is not likely to occur. Additionally, the project site is minimally sloped; the report concluded that there is no significant potential for local creep/sliding. The report contains recommendations for foundation and building design that address on-site soil conditions. The proposed project will be required to comply with

[16] Broadway Valdez District Specific Plan Draft Environmental Impact Report, 4.5-20.
[17] "Alameda County Hazard Map," Association of Bay Area Governments Resilience Program, accessed October 21, 2016, http://resilience.abag.ca.gov/earthquakes/Alameda/.
[18] "Bay Area Hazards," Association of Bay Area Governments Resilience Program, accessed October 21, 2016, http://gis.abag.ca.gov/website/Hazards/?hlyr=liqSusceptibility.
[19] "Bay Area Hazards," Association of Bay Area Governments Resilience Program, accessed October 21, 2016, http://gis.abag.ca.gov/website/Hazards/?hlyr=liqSusceptibility.

the requirements of California Building Code and Seismic Hazards Mapping Act, and SCA-GEO-2: *Soils Report*, which ensures the implementation of the recommendations from an approved soil report to prevent exposure of people or structures to substantial risk of loss, injury, or death during a large regional earthquake.

Based on an examination of the analysis, findings, and conclusions of the BVDSP EIR, implementation of the proposed project would not substantially increase the severity of significant impacts identified in the BVDSP EIR, nor would it result in new significant impacts related to geology, soils, and geohazards that were not identified in the BVDSP EIR. The BVDSP EIR did not identify any mitigation measures related to geology, soils, and geohazards, and none would be needed for the proposed project. SCAs related to erosion, grading, and sedimentation control would apply, as identified in Attachment A at the end of the CEQA Checklist (SCA-GEO-1: *Construction-Related Permit[s], SCA-GEO 2*: *Soils Report*).

6. Greenhouse Gas and Climate Change

Would the project:	Equal or Less Severity of Impact Previously Identified in BVDSP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in EIR	New Significant Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, specifically: • For a project involving a stationary source, produce total emissions of more than 10,000 metric tons of CO_2e annually. • For a project involving a land use development, produce total emissions of more than 1,100 metric tons of CO_2e annually AND more than 4.6 metric tons of CO_2e per service population annually. 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.	☒	☐	☐
b. Fundamentally conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing greenhouse gas emissions.	☒	☐	☐

Greenhouse Gas Emissions (Criterion 6a)

The BVDSP EIR evaluated impacts related to GHG emissions from construction and operation anticipated under the BVDSP. The EIR identified motor vehicle use, water, gas, electrical use, loss of vegetation, and construction activities as contributing to generation of GHG emissions under the implementation of the BVDSP. Future projects and development implemented under the BVDSP would be required to be consistent with the City of Oakland Energy and Climate Action Plan, and with SCAs that would reduce GHG emissions during construction and operation of projects. Even with implementation of

SCAs, the BVDSP EIR conservatively determined that GHG impacts would remain significant and unavoidable.

Consistency with Applicable GHG Plans (Criterion 6b)

The BVDSP EIR determined that development under the Specific Plan would not conflict with any applicable plan, policy or regulation adopted with the intent to reduce GHG emissions. Therefore, the BVDSP EIR determined that the impact related to consistency with applicable plans, policies or regulations to reduce GHG emissions would be less than significant.

Project Analysis and Conclusion

The proposed project would generate GHG emissions that were previously analyzed under the BVDSP EIR. While mitigation measures were not included in the BVDSP EIR, the proposed project would be required to comply with applicable SCAs that would reduce GHG emissions. These SCAs include, but are not limited to, preparation and implementation of a Transportation and Parking Demand Management Plan under SCA-TRANS-4 and a Construction and Demolition Waste Reduction and Recycling Plan under SCA-UTIL-1.

The City requires a GHG reduction plan for projects that exceed both thresholds and large projects that produce total GHG emissions during operations that exceed one or both of the City's established thresholds of significance for land use developments, or involve a stationary source (e.g., backup generator) that produce total GHG emissions that exceed the City's established threshold of significance for stationary sources. The project's construction and operational GHG emissions were quantified and compared with the applicable City GHG threshold. This GHG analysis was prepared for the proposed project to determine whether a GHG reduction plan was required. The project's GHG emissions during construction and operation were estimated using the most current version of the California Emissions Estimator Model (CalEEMod). The project's GHG emissions from operation of a backup diesel generator were estimated in accordance with guidance from the California Air Resources Board. As shown in Tables 3 and 4, the analysis determined that GHG emissions from the proposed project would not exceed the City's established thresholds of significance and therefore the project is not required to prepare a GHG reduction plan. Because the proposed project does not meet the threshold requirements for a GHG reduction plan, it is consistent with the City of Oakland's Energy and Climate Action Plan, as well as the BVDSP.

Table 3 Average Greenhouse Gas Emissions from Operation of the Project

Emissions Scenario	CO_2e [a] (Metric Tons/Year)	CO_2e [a] (Metric Tons/Year/ Service Population [c])
Construction 2018	382	1.08
Construction 2019	393	1.11
Construction 2020	<1	
Construction Total	775	2.18
Amortized Construction Emissions [d]	19.4	
Operation—Area	25.8	0.03
Operation—Energy	9	1.05
Operation—Mobile [b]	372	1.89
Operation—Waste	59	0.17
Operation—Water	34	0.1
Total project Emissions	519	3.3
City of Oakland's Thresholds	1,100	4.489
Exceed City's Mass Emissions Threshold?	No	
GHG Efficiency (**MT CO_2e/yr/SP)**	3.3	
GHG Efficiency Threshold of Significance (MT CO_2e/yr/SP)	4.6	
Threshold Exceedance?	No	No

[a] CO_2e—Carbon dioxide equivalents
[b] The project is located in a Priority Development Area (PDA) and is considered a Transit Priority Project (TPP), which would qualify for CEQA streamlining (i.e., not required to analyze the project's car and light-duty truck emissions impact). However, for the purposes of a conservative analysis, this table compares the project's total emissions (including amortized construction and mobile-source emissions) with the applicable City GHG threshold.
[c] Service population is the sum of employees and residents associated with a project. Using CalEEMod default assumptions, the project is anticipated to have a service population of 355.
[d] Total construction emissions were amortized over 40 years, which is the assumed lifetime of the project.
Source: CalEEMod and FirstCarbon Solutions; See Attachment G-2, SMAQMD 2015.

Table 4 Average Greenhouse Gas Emissions from the Project Backup Generator

Source	CO_2e [a] (Metric Tons/Year)
project Backup Generator	28
City of Oakland's Threshold	10,000
Threshold Exceedance?	No

[a] CO_2e—Carbon dioxide equivalents
Source: Baseline Environmental Consulting, 2016

Based on an examination of the analysis, findings, and conclusions of the BVDSP EIR, implementation of the proposed project would not substantially increase the severity of significant impacts identified in the BVDSP EIR, nor would it result in new significant impacts related to GHG and climate change that were not identified in the BVDSP EIR. The BVDSP EIR did not identify any mitigation measures related to GHGs, and none are required for the proposed project.

7. Hazards and Hazardous Materials

Would the project:	Equal or Less Severity of Impact Previously Identified in BVDSP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in EIR	New Significant Impact
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 which 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, would create a significant hazard to the public or the environment;	☒	☐	☐
b. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;	☒	☐	☐
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.	☒	☐	☐

Hazardous Materials Use, Storage and Disposal and Hazardous Building Materials (Criterion 7a)

The BVDSP EIR determined that development under the BVDSP could result in construction activities that use hazardous materials, as well as ongoing commercial activities that involve the use of chemicals that are considered hazardous materials. Adoption and development under the BVDSP could therefore require the transportation, use, and storage of additional quantities of hazardous materials to new businesses and entities. The transportation, use, and storage of all hazardous materials would be required to follow the applicable laws and regulations adopted to safeguard workers and the general public. In addition, development under the BVDSP would be subject to the City of Oakland's SCAs pertaining to best management practices for hazardous materials.

Exposure to Hazardous Materials in the Subsurface (Criterion 7a)

The BVDSP EIR determined that development under the BVDSP could require excavation for installation of building foundations and underground utilities and that some of the development sites could have had past documented releases of hazardous materials that have contaminated subsurface soils and groundwater or previously unknown releases that may be discovered during excavation activities. Disturbed contaminated soils could expose construction workers and the public to contaminants potentially causing significant adverse health effects. The BVDSP EIR also indicated that a proposed land use change, such as changing a commercial building to a residential building, could require more stringent clean up levels even if the site had been considered remediated or closed based on complying with standards for its current land use. Development under the BVDSP would be subject to the City of Oakland's SCAs pertaining to hazardous materials in the subsurface, including conducting a Phase I Environmental Site Assessment (ESA) and a Phase II ESA, if warranted based on the results of the Phase I ESA; procedures for managing suspected contamination that is encountered unexpectedly during construction activities; preparation of a construction worker health and safety plan; and implementation of best management practices related to hazardous materials management. The BVDSP EIR determined that compliance with these SCAs would reduce the potential impacts related to hazardous materials in the subsurface to a less than significant level.

Hazardous Materials within a Quarter Mile of a School (Criterion 7b)

There are no schools in the Plan Area; however, there are five schools or daycare facilities within 0.25 mile of the Plan Area. Development under the BVDSP would be required to comply with the City of Oakland's Ordinances and General Plan Policies, which require hazardous material handlers within 1,000 feet of a school or other sensitive receptor to prepare a Hazardous Materials Assessment Report and Remediation Plan. Additionally, those handling or storing hazardous materials would be required to prepare a Hazardous Materials Management Plan and Hazardous Materials Business Plan, as required by

Alameda County and a City of Oakland SCA; preparation of these plans would reduce impacts to less than significant levels.

Emergency Access Routes (Criteria 7c)

The EIR determined that construction under the BVDSP that would result in temporary road closures, which would require traffic control plans to ensure at least two emergency access routes are available for streets exceeding 600 feet in length, consistent with City of Oakland's Ordinances and General Plan Policies. Compliance with all applicable requirements would reduce potential impacts to a less than significant level.

Project Analysis and Conclusion

Developments under the BVDSP including the proposed project, would be required to follow the applicable laws and regulations related to transportation, use, and storage of all hazardous materials and to safeguard workers and the general public. Development under the BVDSP would also be subject to the City of Oakland's SCA-HAZ-1: *Hazardous Materials Related to Construction,* pertaining to the implementation of best management practices for hazardous materials during construction.

A Phase I Environmental Site Assessment (ESA) conducted for the project site (Attachment J) observed no hazardous materials or wastes on the property and found no Recognized Environmental Condition (REC) in association with the property. However, based on the history of up to 50 years of auto repair that occurred on site, the Phase I ESA recommended measures to guide proper soil excavation work and disposal practices. These recommendations would be met by implementing SCA-HAZ-2: *Hazardous Building Materials and Site Contamination*.

The project sponsor is required to prepare and implement a Health and Safety Plan to protect project construction workers from risks associated with exposure to hazardous materials if encountered. The Health and Safety Plan would include, but is not limited to, measures related to personal protective equipment, exposure monitoring, emergency response plan, and a training program. In addition, SCA-HAZ-2 requires the implementation of best management practices for the handling of contaminated soil and groundwater discovered during construction activities to ensure their proper storage, treatment, transport, and disposal. Specifically, SCA-HAZ-2 would require that all suspect soil be stockpiled on-site in a secure and safe manner and adequately profiled (sampled) prior to acceptable reuse or disposal at an appropriate off-site facility. Additionally, this SCA would require implementation of specific sampling and handling and transport procedures for reuse or disposal in accordance with applicable local, state, and federal requirements. Implementation of SCA-HAZ-2 will be reviewed, approved, and overseen by the City, and any applicable regulatory agency, as required by law.

As stated above, the Project would not be constructed on a hazardous waste site. Five Underground Storage Tank (UST) sites were located within the Broadway-Valdez Triangle: Chevron, Sisters of Providence Hospital, Labor Temple Parking Lot, Oakland Tribune, and Tribune Reuse Site. The Chevron, Labor Temple Parking Lot, and Oakland Tribune sites have been remediated and achieved regulatory closure, while the Sisters of Providence Hospital and Tribune Reuse Sites are currently under remediation. The proposed Project would not be affected by the two remaining UST sites.

The proposed project is located within 0.25 mile of Westlake Middle School St. Paul's Episcopal School, and the Oakland Emiliano Zapata Street Academy. The BVDSP EIR determined that the potential risks related to hazardous materials use in the vicinity of schools would not exceed the level of severity identified in the BVDSP EIR, given incorporation of SCAs and other existing regulatory requirements. The proposed project would not change the surrounding streets or roadways, or limit emergency access or plans. Any temporary roadway closures required during construction of the proposed project would be subject to City of Oakland review and approval, to ensure consistency with City of Oakland requirements. The Project would not emit hazardous emissions within one quarter mile of an existing or proposed school. As stated above, there are five schools within one quarter mile of the Plan Area, but none are located within one quarter mile of the Project site.

Based on an examination of the analysis, findings, and conclusions of the BVDSP EIR, implementation of the proposed project would not substantially increase the severity of significant impacts identified in the BVDSP EIR, nor would it result in new significant impacts related to hazards and hazardous materials that were not identified in the BVDSP EIR. The BVDSP EIR did not identify any mitigation measures related to hazards and hazardous materials, and none would be needed for the proposed project. SCAs related to asbestos removal; lead-based paint/coatings; PCBs; ESA reports and remediation; health and safety plans; groundwater and soil contamination; and hazardous materials business plans would apply to the proposed project, as identified in Attachment A at the end of the CEQA Checklist (SCA-HAZ:1 *Hazardous Materials Related to Construction*, SCA-HAZ-2: *Hazardous Building Materials and Site Contamination.*

8. Hydrology and Water Quality

Would the project:	Equal or Less Severity of Impact Previously Identified in BVDSP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in EIR	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 which would be an additional source of polluted runoff; Otherwise substantially degrade water quality; Fundamentally conflict with the City of Oakland Creek Protection Ordinance (OMC 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 pre-existing nearby wells would drop to a level which would not support existing land uses or proposed uses for which permits have been granted);	☒	☐	☐
c. Create or contribute substantial runoff which would exceed the capacity of existing or planned stormwater drainage systems; Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course, or increasing the rate or amount of flow, of a creek, river, or stream in a manner that would result in substantial erosion, siltation, or flooding, both on or off site.	☒	☐	☐

Would the project:	Equal or Less Severity of Impact Previously Identified in BVDSP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in EIR	New Significant Impact
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 which would impede or redirect flood flows; or Expose people or structures to a substantial risk of loss, injury, or death involving flooding.	☒	☐	☐

Water Quality, Stormwater, and Drainages and Drainage Patterns (Criteria 8a and 8c)

The BVDSP EIR determined that development in the Plan Area would result in construction activities that would require ground disturbance, resulting in impacts to hydrology and water quality. The EIR identified several SCAs that would reduce impacts to a less than significant level by minimizing runoff and erosion, as well as sedimentation and contamination to stormwater and surface water during construction activities.

Use of Groundwater (Criterion 8b)

Potable water is supplied to the Plan Area through imported surface water by the EBMUD, and groundwater is generally not used in the Plan Area. The Plan Area is primarily developed and covered with impervious surfaces, and the amount of water able to infiltrate the aquifer in the East Bay Plain groundwater basin would not substantially decrease with development under the BVDSP. Additionally, compliance with the C.3 provisions of the National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit for the Alameda County Clean Water Program would require that recharge rates at a project site be equivalent to the recharge rate at the site prior to development.

Flooding and Substantial Risks from Flooding (Criteria 8d)

The BVDSP EIR identified the easternmost part of the Plan Area along Glen Echo Creek as being situated in the 100-year flood zone, with the rest of the Plan Area lying outside of the 100-year flood zone. SCAs that require regulatory permits prior to construction in a floodway or floodplain, along with preparation of hydrological calculations that ensure that structures will not interfere with the flow of water or increase flooding, would reduce impacts to less than significant levels.

Project Analysis and Conclusion

The proposed project site is currently in use as a surface parking and impervious surfaces cover the entire site. The proposed project would not result in a net change to amount of impervious surface coverage and would not substantially alter drainage patterns or increase the flow of runoff. Additionally, the proposed project would be required to comply with SCAs related to hydrology and water quality, including provisions requiring the preparation and implementation of an Erosion and Sediment Control Plan for Construction and a Post-Construction Stormwater Management Plan, as well as a maintenance agreement for on-site stormwater treatment measures and compliance with the State Construction General Permit, as applicable. The project site is outside the 100-year flood hazard zone.[20]

The project site is underlain by fill consisting of gravels, sands, and clays to a depth of at least 8 feet. Recent studies in the vicinity of the proposed project site indicate that groundwater has been encountered at between approximately 15 feet below ground surface and that it generally flows to the south.[21] Based on the presence of relatively shallow groundwater and proposed excavation of approximately 1,480 cubic yards of soil for the foundation, construction-period dewatering may be required. However, dewatering would be temporary and limited to the period of construction, having only a localized and short-term effect on groundwater levels. Post-construction dewatering would not be required because the foundation and wall systems below the groundwater table would be waterproofed to prevent infiltration.

As described in the BVDSP EIR, any groundwater dewatering would be limited in duration and would be subject to permits from EBMUD or the RWQCB, depending if the discharge

[20] "FEMA's National Flood Hazard Zone," FEMA, accessed October 12, 2016, http://fema.maps.arcgis.com/home/webmap/viewer.html?webmap=cbe088e7c8704464aa0fc34eb99e7f30&extent=-122.28601502661188,37.806545601776584,-122.24447297338813,37.81773398790539.

[21] AECOM, 2015. Phase I Environmental Site Assessment, Acura of Oakland property, 277 27th Street, Oakland, CA, October 22.

were to the sanitary or storm sewer system. If the water is not suitable for discharge to the storm drain (receiving water), dewatering effluent may be discharged to EBMUD's sanitary sewer system if special discharge criteria are met. These include, but are not limited to, application of treatment technologies or Best Management Practices (BMPs) which will result in achieving compliance with the wastewater discharge limits. Discharges to EBMUD's facilities must occur under a Special Discharge Permit. In addition, according to the EBMUD Wastewater Ordinance, "all dischargers, other than residential, whose wastewater requires special regulation or contains industrial wastes requiring source control shall secure a wastewater discharge permit" (Title IV, Section 1). EBMUD also operates its wastewater treatment facilities in accordance with Waste Discharge Requirements issued by the RWQCB, which require rigorous monitoring of effluent to ensure discharges do not adversely impact receiving water quality. Since proper management of dewatering effluent is covered by existing State and local regulations, and implementation of these regulations would protect receiving water quality, the project would be consistent with the BVDSP EIR.

Based on an examination of the analysis, findings, and conclusions of the BVDSP EIR, implementation of the proposed project would not substantially increase the severity of significant impacts identified in the BVDSP EIR, nor would it result in new significant impacts related to hydrology and water quality that were not identified in the BVDSP EIR. The BVDSP EIR identified no mitigation measures related to hydrology and water quality, and none would be required for the proposed project. The proposed project would be required to implement SCAs related to stormwater, drainages and drainage patterns, and water quality, as identified in Attachment A at the end of the CEQA Checklist (SCA-HYD-1: *Erosion and Sedimentation Control Plan for Construction*, SCA-HYD-2: *State Construction General Permit*, and SCA-HYD-3: *NPDES C.3 Stormwater Requirements for Regulated projects*).

9. Land Use, Plans, and Policies

Would the project:	Equal or Less Severity of Impact Previously Identified in BVDSP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in EIR	New Significant Impact
a. Physically divide an established community;	☒	☐	☐
b. Result in a fundamental conflict between adjacent or nearby land uses; or	☒	☐	☐
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.	☒	☐	☐

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

The BVDSP EIR determined that adoption and implementation of the BVDSP would have less than significant land use impacts related to the division of an established community, potential conflicts with nearby land uses, or applicable land use plans, policies, and regulations. The Plan Area is in Oakland's Central Business District, an area intended to promote a mixture of vibrant and unique uses with around-the-clock activity, continued expansion of job opportunities, and growing residential population.

Project Analysis and Conclusion

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.

The proposed project site is located in Valdez Triangle subarea of the Plan Area and zoned D-BV-2. As described in the Oakland Municipal Code (17.101C.010), "the intent of

the of the D-BV-2 Zone is to create, maintain, and enhance areas of the Broadway Valdez District Specific Plan Area for ground-level retail, restaurants, entertainment, and art activities with pedestrian-oriented, active storefront uses. Upper-story spaces are intended to be available for a wide range of Office and Residential Activities."[22] As discussed in the BVDSP EIR, the D-BV-2 requires that ground floor uses consist of retail, restaurant, entertainment, or arts activities.[23] The proposed project would include commercial/retail space on the ground floor. The BVDSP allows building heights up to 250 feet in the southern portion of the planning area where the proposed project would be located. The proposed project would be approximately 240 feet tall as measured to the roof and would not exceed this maximum height. Further, by bringing new residents and commercial/retail space to the area, the proposed project would be consistent with the policy objective of the BVDSP to turn the Valdez Triangle Subarea into a "dynamic retail district" and repurposing underutilized parcels.[24]

Based on the above, the proposed project would be consistent with the land use regulations in the BVDSP. Based on an examination of the analysis, findings, and conclusions in the BVDSP EIR, implementation of the proposed project would not substantially increase the severity of the significant impacts identified in that report, nor would it result in new significant impacts related to land uses, plans, or policies that were not identified in the BVDSP EIR. The BVDSP EIR did not identify any SCAs or mitigation measures related to land use, and none are necessary for the proposed project.

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[22] "Oakland Municipal Code," City of Oakland, accessed September 13, 2016, https://www.municode.com/library/ca/oakland/codes/planning_code?nodeId=TIT17PL_CH17.101CBRVADICOZORE.

[23] Broadway Valdez District Specific Plan EIR, 3-17

[24] Broadway Valdez District Specific Plan, 95, 102.

10. Noise

Would the project:	Equal or Less Severity of Impact Previously Identified in BVDSP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in EIR	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 7:00 p.m. to 7:00 a.m. on weekdays and 8:00 p.m. to 9:00 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; 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 5 dBA permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or, if under a cumulative scenario where 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);	☒	☐	☐

Would the project:	Equal or Less Severity of Impact Previously Identified in BVDSP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in EIR	New Significant Impact
d. Expose persons to interior L_{dn} or CNEL greater than 45 dBA for multi-family dwellings, hotels, motels, dormitories and long-term care facilities (and may be extended by local legislative action to include single-family dwellings) per California Noise Insulation Standards (CCR Part 2, Title 24); Expose the project to community noise in conflict with the land use compatibility guidelines of the Oakland General Plan after incorporation of all applicable Standard Conditions of Approval; 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]); or	☒	☐	☐
e. During either project construction or project operation expose persons to or generate ground-borne vibration that exceeds the criteria established by the Federal Transit Administration (FTA).	☒	☐	☐

Construction and Operational Noise and Vibration, Exposure of Receptors to Noise (Criteria 10a, 10b, 10d, and 10e)

Overall, the BVDSP EIR determined that impacts related to construction and operations of development under the BVDSP would be less than significant. Construction-related activities associated with development under the BVDSP would temporarily increase ambient noise levels and vibration. Implementation of SCAs would minimize construction noise impacts by limiting hours of construction activities; require best available noise control technology; require vibration monitoring for activities adjacent to historic structures; and require a project sponsor and/or its contractors to notify any local residents of construction activities, and to track and respond to noise complaints.

During operations, mechanical equipment used in projects developed under the BVDSP would generate noise; however, equipment would be standardized and would be required to comply with the City of Oakland Noise Ordinance. Potential impacts would be reduced with implementation of SCAs that would require project design to achieve acceptable interior noise levels for buildings; limit ground-borne vibration at the project site; and require mechanical equipment to comply with applicable noise performance standards.

As described in the BVDSP EIR, noise measurements taken at various locations in the Plan Area indicate that the ambient noise environment in the Plan Area would be in the conditionally acceptable category for residential uses, and in the normally acceptable category for commercial uses—except for 24th Street, 25th Street, and Brooks Street in the Plan Area. At these three locations, the noise environment would be in the normally acceptable category for residential uses. The BVDSP EIR identified an SCA that would ensure that project components are appropriately sound-rated to meet land use compatibility requirements throughout the Plan Area.

Traffic Noise (Criterion 10c)

The BVDSP EIR determined that development under the Specific Plan would increase noise levels adjacent to nearby roads due to additional vehicles traveling throughout the Plan Area. The increase in traffic noise from the Existing Plus Project scenario as compared to existing conditions would increase peak-hour noise levels by less than 5 A-weighted decibels (dBA) at all studied roadway segments, with the exception of 24th Street east of Broadway and 26th Street east of Broadway, where the increase in roadside noise would be 6.4 and 5.1 dBA, respectively. In addition, the increase in traffic noise between the Cumulative No Project (2035) and Cumulative Plus Project (2035) scenarios would be 5.3 dBA along 24th Street east of Broadway, and 2.1 dBA along Valdez Street north of Grand Avenue. The cumulative increases in traffic-generated noise could also combine with stationary noise sources, such as rooftop mechanical equipment and back-up generators, to result in significant cumulative impacts. The BVDSP EIR determined that no feasible mitigation measures are available, and that these impacts would remain significant and unavoidable.

Project Analysis and Conclusion

Construction activities for the proposed project are expected to occur over approximately 24 months, and would entail excavation for the foundation, as well as construction of the building and finishing interiors. The foundation of the proposed project would be constructed using a mat-slab foundation and no pile driving is anticipated. The proposed project is adjacent to a noise sensitive multi-family residential apartment building, located immediately to the west. The adjacent building is built to a zero lot line and although the wall facing the project site is blank with no windows, residents could still be adversely affected by noise during project construction activities. However, the proposed project would be required to implement SCA-NOI-1: *Construction Days/Hours* to limit the days

and hours of construction, SCA-NOI-2: *Construction Noise* and SCA-NOI-3: *Extreme Construction Noise* to ensure the application of noise reduction measures to reduce noise impacts and extreme construction noise, and SCA-NOI-4: *Construction Noise Complaints* to provide measures to respond to and track construction noise complaints (if any).

Additionally, the site is located within one-half mile of several projects as shown in Table 7 (included in Section 13 of this document), such as 24th and Harrison Project and the 2315 Valdez Street/2330 Webster Street Project. Construction schedules of all these projects are currently unknown and construction activities for the proposed project and these other projects may occur simultaneously. However, the proposed project conforms to the traffic generation parameters analyzed in the BVDSP EIR, as described below in Section 13, Transportation and Circulation. As such, the proposed project is within the envelope of the Development Program analyzed in the BVDSP and would not be anticipated to substantially increase the level of significance of the construction noise impact identified in the BVDSP EIR or result in a new significant construction noise impact. In addition, the proposed project would be required to implement SCA-NOI-1: *Construction Days/Hours*, SCA-NOI-2: *Construction Noise,* SCA-NOI-3: *Extreme Construction Noise*, and SCA-NOI-4: *Construction Noise Complaints*, described above.

During operation of the proposed project, noise from mechanical equipment, including a backup generator, increased traffic from additional trips associated with the residential and retail components of the project, including truck deliveries, and parking lot activities inside the proposed four-story parking garage. The proposed project would be required to implement SCA-NOI-6: *Operational Noise*, which 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. The proposed project is not located adjacent to any active rail line and, therefore, the SCA pertaining to exposure of new dwelling units to vibration (*Exposure to Vibration*) would not apply.

Based on an examination of the analysis, findings, and conclusions of the BVDSP EIR, and since the proposed project is consistent with the Broadway Valdez Development Project analyzed in the BVDSP EIR, implementation of the proposed project would not substantially increase the severity of significant impacts identified in the BVDSP EIR, nor would it result in new significant impacts related to noise that were not identified in the BVDSP EIR. The BVDSP EIR did not identify any mitigation measures related to noise, and none would be necessary for the proposed project. The proposed project would be required to implement SCAs to reduce construction noise and vibration, achieve interior noise standards, and require mechanical equipment to meet applicable noise performance standards presented on page 4.10-12 in BVDSP EIR. Related SCAs are provided in Attachment A at the end of the CEQA Checklist (SCA-NOI-1: *Construction Days/Hours*, SCA-NOI-2: *Construction Noise*, SCA-NOI-3: *Extreme Construction Noise*, SCA-NOI-4: *Construction Noise Complaints*, SCA-NOI-5: *Exposure to Community Noise,* and SCA-NOI-6: *Operational Noise*).

11. Population and Housing

Would the project:	Equal or Less Severity of Impact Previously Identified in BVDSP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in EIR	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.	☒	☐	☐

Population Growth and Displacement of Housing and People (Criteria 11a and 11b)

The BVDSP EIR determined that impacts related to population growth and displacement of housing and people would be less than significant. Development under the BVDSP would add up to 1,800 housing units and 3,230 residents to the Plan Area.[25] As discussed in the BVDSP EIR, this would represent approximately 2 percent of the total population growth projected for Oakland through 2035,[26] and would not be considered substantial. Although

[25] As shown in Table 6, there are 2,573 net new housing units and approximately 214,900 gross square feet of net new commercial uses constructed and/or proposed for development under the BVDSP to date. The BVDSP EIR allows for the distribution of density and development type between categories and sub-areas as long as such development conforms to the general traffic generation parameters established by the Plan.

[26] Broadway Valdez Specific Plan, 4.11-10.

adoption and development under the BVDSP could require the demolition of existing housing units, existing regulations such as Housing Element policies, the Ellis Act (Government Code Sections 7060 through 7060.7), and the City of Oakland's Ellis Act Ordinance (Oakland Municipal Code Sections 8.22.400 through 8.22.480) would prevent significant impacts.

Project Analysis and Conclusion

The proposed project would replace the existing surface parking lot at the project site with a new mixed-use building consisting of 130 residential units and approximately 3,000 square feet of commercial (retail) space. The proposed project would not demolish or displace any existing housing units.

Assuming an average of 1.87 persons per household as stated in the BVDSP EIR, the proposed project would result in an increase of approximately 243 new residents. Additionally, assuming a standard generation rate of one employee per 500 square feet of retail space, the proposed project would generate approximately six jobs. While the proposed project, in combination with other proposed and approved projects in the Plan Area, could result in more than 1,800 dwelling units being built, the BVDSP allows for flexibility with respect to the quantity and type of future development as long as such development conforms to the general traffic generation parameters established by the BVDSP EIR. The proposed project is within the envelope of the Development Program analyzed in the BVDSP EIR.

Based on an examination of the analysis, findings, and conclusions in the BVDSP EIR, implementation of the proposed project would not substantially increase the severity of the impacts identified in that EIR, nor would it result in new significant impacts related to population and housing that were not identified in the BVDSP EIR. The BVDSP EIR did not identify any mitigation measures or SCAs related to population and housing, and none would be required for the proposed project.

12. Public Services, Parks, and Recreation Facilities

Would the project:	Equal or Less Severity of Impact Previously Identified in BVDSP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in EIR	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: • Fire protection; • Police protection; • Schools; or • Other public facilities.	☒	☐	☐
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 which might have a substantial adverse physical effect on the environment.	☒	☐	☐

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

The BVDSP EIR determined that impacts related to fire and police protection, schools, and other public facilities would be less than significant. Although development under the BVDSP would increase density and population in the Plan Area, any corresponding increase in crime and need for police protection would likely be counteracted by the revitalization of the area, as envisioned by the BVDSP. The EIR identified SCAs that would reduce the potential impacts related to the increased need for fire protection by requiring all projects to implement safety features, and to comply with all applicable codes and regulations. Adherence to the General Plan's Open Space, Conservation and Recreation (OSCAR) Element policies 3.1, 3.3, and 3.10 would reduce potential impacts to recreational facilities. In addition, any increases in need for police protection, fire

protection, schools, or other public facilities would be mitigated by adherence to General Plan policies N.12.1, N.12.2, N.12.5, FI-1, and FI-2. No additions or expansions of parks or recreational facilities are proposed under the BVDSP, and no new parks or recreational facilities, or expansion of existing parks or recreational facilities, were determined to be required under the BVDSP.

Project Analysis and Conclusion

The proposed project would add 130 residential units and approximately 3,000 square feet of commercial/retail uses. This development program and intensity, while not specified in the Illustrative Development Program Map, is consistent with the BVDSP, which did not prescribe or assume exact land uses on a site-by-site basis and instead established a maximum density based on trip generation and traffic capacity. The proposed project is within that capacity and the residential units and commercial square footage proposed for the project, was analyzed in the BVDSP EIR, and the proposed project's increase in demand for public services is consistent with that analysis.

The proposed project would increase student enrollment at local schools. Pursuant to Senate Bill 50, the 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 relatively minor increase in demand for police and fire protection services; however, as described in the BVDSP EIR, adherence to General Plan policies N.12.1, N.12.2, N.12.5, FI-1, and FI-2 would mitigate potential impacts.

As described above, no new parks or recreational facilities, nor expansion of existing parks or recreational facilities, would be required as a result of adoption and development under the BVDSP. As described above, adherence to General Plan's OSCAR Policies 3.1, 3.3, and 3.10 detailed in the BVDSP would reduce potential impacts to recreational facilities .Further, in the form of an outdoor rooftop terrace, a group communal room and private balcony space, the proposed project would provide approximately 10,665 square feet of open space, as described in the project description. The open space that would be provided is consistent with the requirements of the BVDSP and the Planning Code to meet recreational demands associated with development of residential units.

Based on an examination of the analysis, findings, and conclusions in the BVDSP EIR, implementation of the proposed project would not substantially increase the severity of the significant impacts identified in that report, nor would it result in new significant impacts related to the provision of public services or park and recreational facilities that were not identified in the BVDSP EIR. The BVDSP EIR did not identify any mitigation measures or SCAs related to public services or park and recreational facilities, and none would be required for the proposed project.

13. Transportation and Circulation

Would the project:	Equal or Less Severity of Impact Previously Identified in BVDSP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in EIR	New Significant Impact
Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit, specifically:			
Traffic Load and Capacity Thresholds a. At a study, signalized intersection which is located **outside the Downtown area and that does not provide direct access to Downtown**, the project would cause the motor vehicle level of service (LOS) to degrade to worse than LOS D (i.e., LOS E or F) and cause the total intersection average vehicle delay to increase by four (4) or more seconds;	☒	☐	☐
b. At a study, signalized intersection which is located **within the Downtown area or that provides direct access to Downtown**, the project would cause the motor vehicle LOS to degrade to worse than LOS E (i.e., LOS F) and cause the total intersection average vehicle delay to increase by four (4) or more seconds;	☒	☐	☐
c. At a study, signalized intersection **outside the Downtown area and that does not provide direct access to Downtown** where the motor vehicle level of service is LOS E, the project would cause the total intersection average vehicle delay to increase by four (4) or more seconds;	☒	☐	☐
d. At a study, signalized intersection **outside the Downtown area and that does not provide direct access to Downtown** where the motor vehicle level of service is LOS E, the project would cause an increase in the average delay for any of the critical movements of six (6) seconds or more;	☒	☐	☐

Would the project:	Equal or Less Severity of Impact Previously Identified in BVDSP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in EIR	New Significant Impact
e. At a study, signalized intersection for all areas where the level of service is LOS F, the project would cause (a) the overall volume-to-capacity ("V/C") ratio to increase 0.03 or more or (b) the critical movement V/C ratio to increase 0.05 or more;	☒	☐	☐
f. At a study, unsignalized intersection the project would add ten (10) or more vehicles to the critical movement and after project completion satisfy the California Manual on Uniform Traffic Control Devices (MUTCD) peak-hour volume traffic signal warrant;	☒	☐	☐
g. For a roadway segment of the Congestion Management Program (CMP) Network, the project would cause (a) the LOS to degrade from LOS E or better to LOS F or (b) the V/C ratio to increase 0.03 or more for a roadway segment that would operate at LOS F without the project; or	☒	☐	☐
h. Cause congestion of regional significance on a roadway segment on the Metropolitan Transportation System (MTS) evaluated per the requirements of the Land Use Analysis Program of the CMP.	☒	☐	☐

Criteria 13a through 13h

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 in order to implement the directive from Senate Bill 743 (Steinberg 2013) to modify local environmental review processes by removing automobile delay, as described solely by level of service (LOS) or similar measures of vehicular capacity or traffic congestion, as a significant impact on the environment pursuant to CEQA. The recommendation aligns with draft proposed guidance from the Governor's Office of Planning and Research and the City's approach to transportation impact analysis with adopted plans and policies related to transportation, which promote the reduction of

greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.

Thus, this section of the CEQA Checklist evaluates the impacts of the proposed project with respect to VMT. In addition, consistent with previous developments proposed under the BVDSP, this Section also compares the proposed project's impacts to those analyzed in the EIR, provides additional analysis of project study intersections to supplement the analysis in the EIR, and identifies EIR impacts and mitigation measures that would be triggered by the proposed project combined with other planned developments.

Vehicle Miles Travelled (VMT)

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.

Considering 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.

Estimating VMT

Neighborhoods within Oakland are expressed geographically in transportation analysis zones, or TAZs. The Metropolitan Transportation Commission (MTC) Travel Model includes 116 TAZs in 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 estimates VMT by automobiles for different employment categories. 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 and transit carrier for a particular scenario. For example, in the 2040 MTC model run, trips are assigned to and from each of the TAZs across the region based on the projected employment categories.

The travel behavior from 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 retail 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 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.

Thresholds of Significance

According to the interim *Update to CEQA Thresholds of Significance and Transportation Impact Study Guidelines* dated October 17, 2016, 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 a net increase in total VMT.

VMT impacts would be less than significant for a project if any of the 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 one-half mile of a Major Transit Corridor or Stop [27] 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); and
    - Is consistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Transportation Commission).

VMT Screening Analysis

The proposed project satisfies the Low-VMT Area (number 2) and Near Transit Station (number 3) screening criteria, as detailed below. VMT calculations are provided in Attachment I.

Criterion Number 1: Small Projects

The project would not generate more than 100 trips per day and therefore does not meet criterion number 1.

Criterion #2: Low-VMT Area

The Project site is located in TAZ 972. As shown in Table 5, 2020 and 2040 VMT for TAZ 972 are 15 percent below the regional average. Because the proposed project would provide less than 50,000 square feet of retail space, the retail use is considered to be local serving.

[27] 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.

Table 5 Daily Vehicle Miles Traveled per Capita

Land Use	Bay Area				TAZ 972	
	2020		2040			
	Regional Average	Regional Average minus 15%	Regional Average	Regional Average minus 15%	2020	2040
Residential (VMT per Capita)[a]	15.0	12.8	13.8	11.7	6.9	6.8

[a] MTC Model results at analytics.mtc.ca.gov/foswiki/Main/PlanBayAreaVmtPerCapita and accessed in November 2016.

Source: Fehr & Peers, 2016

Criterion Number 3: Near Transit Stations

The proposed project would be located about 0.3 mile from the 19th Street BART Station and is served by several frequent bus routes. The project site is about 400 feet from frequent bus service along Broadway (Route 51A with 10 minute peak headways), and about 0.2 miles from Telegraph Avenue (Route 6 with 10 minute peak headways). The proposed project has an FAR greater than 0.75. Further, 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. According to the City of Oakland Municipal Code Sections 17.116.060 and 17.116.310 in the D-BV-2 zone, the project is required to provide one-half (½) parking space per unit with no maximum parking limit and all spaces must be unbundled. The proposed parking supply is within the supply range allowed by the Municipal Code. Therefore, the 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 required by the City Code. As such, the proposed project would satisfy Criterion number 3 because it would meet all of the three conditions for this criterion.

VMT Screening Conclusion

The proposed project would satisfy the Low-VMT Area (number 2) Criteria and Near Transit Stations (number 3) Criteria and is located in within one-half mile of a Major Transit Corridor and a BART station. As such, the proposed project is therefore presumed to have a less-than-significant impact on VMT.

Consistency with BVDSP EIR

While the City now relies on VMT as their CEQA Thresholds of Significance, the threshold for determining consistency with the BVDSP EIR is based on conformity with transportation and circulation assumptions. For this reason, this section of the CEQA Checklist

summarizes the project's consistency with the BVDSP EIR based on a transportation analysis completed for the proposed project. The analysis is provided in two parts below, as follows: the first part describes the BVDSP EIR analysis related to transportation and circulation impacts; the second part compares the proposed project's impacts to those analyzed in the EIR, provides additional analysis of project study intersections to supplement the analysis in the EIR, and identifies EIR impacts and mitigation measures that would be triggered by the proposed project combined with other planned developments.

BVDSP EIR Analysis

The BVDSP EIR analyzed transportation and circulation conditions in and around the Plan Area under six different scenarios, which represent three time periods (existing conditions, Year 2020, and Year 2035) with and without the BVDSP Development Program and transportation improvements. For the purposes of this analysis, these scenarios are referred to as: 1) existing conditions; 2) existing conditions plus full Development Program (full buildout of the Broadway Valdez Development Program); 3) Year 2020 no project; 4) Year 2020 plus Phase 1 of Development Program (partial buildout of the Development Program); 5) Year 2035 no project; and 6) Year 2035 plus full Development Program (full buildout of the Development Program).

The BVDSP EIR determined that no significant impacts to transit, pedestrian, bicycle, and other related topics would occur under any of the scenarios; therefore, these topics are not further discussed herein. As noted in the EIR, the Development Program represents the reasonably foreseeable development expected to occur in the next 20 to 25 years in the Plan Area. The Specific Plan and the EIR intend to provide flexibility in the location, amount, and type of development. Therefore, the traffic impact analysis in the EIR does not assign land uses to individual parcels; rather, land uses are distributed to five subdistricts within the Plan Area. Thus, as long as the trip generation for each subdistrict and the overall Plan Area remain below the levels estimated in the EIR, the traffic impact analysis presented in the EIR continues to remain valid.

The EIR identified 28 significant impacts on Level of Service (LOS) at intersections serving the Plan Area. For each impact and associated mitigation measure(s), the EIR identified specific triggers based on the level of development in the entire Plan Area or specific subdistrict(s). Several of these impacts and mitigation measures would be triggered by the proposed project combined with other planned developments. These impacts and mitigation measures are further described below.

The BVDSP EIR identified SCAs that require city review and approval of all improvements in the public right-of-way, reduction of vehicle traffic and parking demand generated by development projects, and construction traffic and parking management, which will also address transportation and circulation impacts.

Project Analysis and Conclusion

The trip general for the proposed project is summarized in Table 6. Trip generation accounts for the trips generated by the existing uses that the proposed project would eliminate. The proposed project would generate approximately 40 net new vehicle trips during the weekday AM peak hour (nine inbound and 31 outbound) and approximately 57 net new vehicle trips during the weekday PM peak hour (36 inbound and 21 outbound).

Table 6 Project Vehicle Trip Generation

Land Use	ITE Code	Daily	Weekday AM Peak Hour			Weekday PM Peak Hour		
			In	Out	Total	In	Out	Total
Proposed Project								
Multi-Family Residential								
130 Units	220[a]	910	13	54	67	58	31	89
Retail								
3.0 KSF	820[b]	130	2	1	3	5	6	11
Subtotal		*1,040*	*15*	*55*	*70*	*63*	*37*	*100*
Non-Auto Reduction (-43%)[c]		-450	-6	-24	-30	-27	-16	-43
Total New Project Vehicle Trips		590	9	31	40	36	21	57

KSF = 1,000 square feet.
[a] ITE Trip *Generation (9th Edition)* land use category 220 (Apartments):
Daily: T = 6.06(X) + 123.56
AM Peak Hour: T = 0.49(X) + 3.73 (20% in, 80% out)
PM Peak Hour: T = 0.55(X) + 17.65 (65% in, 35% out)
[b] ITE *Trip Generation (9th Edition)* land use category 820 (Shopping Center):
Daily: T = 42.7 * X
AM Peak Hour: T = 0.96* X (88% in, 12% out)
PM Peak Hour: T = 3.71* X (17% in, 83% out)
[c] Reduction of 43.0% assumed. Based on City of Oakland *Transportation Impact Study Guidelines* using BATS 2000 data for development in an urban environment within 0.5 miles of a BART Station.
Source: Fehr & Peers, 2017.

Analysis of Proposed Project and Other Projects that are in Development under the Development Program Analyzed in the BVDSP EIR.

The development projects within BVDSP Plan Area that have been constructed, are currently under construction, approved, and/or proposed, including the proposed project are included in Table 7. Table 7 also accounts for existing uses on each site.

The total amount of development constructed, currently under construction, approved, and/or proposed with the Development Program Buildout assumptions used in the BVDSP Draft EIR for the Plan Area (Subdistricts 1 through 5), the Valdez Triangle subarea (Subdistricts 1 through 3) and Subdistrict 1 is provided in Table 8. The trip generation from the project site, which is in Subdistrict 1 of the Valdez Triangle subarea of the Plan Area and the trip generation in the Plan Area (Subdistricts 1 through 5), the Valdez Triangle subarea (Subdistricts 1 through 3), and Subdistrict 1 is compared in Table 9.

Table 7 Developments in the Broadway Valdez District Specific Plan

Development	BVDSP Subdistrict	Status	Proposed Development[a] Residential (DU)	Retail (KSF)	Office (KSF)	Other (KSF)	Active Existing Uses[b]	Net Development[a,c] Residential (DU)	Retail (KSF)	Office (KSF)	Other (KSF)
3001 Broadway (Sprouts)	5	Constructed	0	36.0	0	0	Parking Lot	0	36.0	0	0
2345 Broadway (HIVE)	1	Constructed	105	30.3	64.0	0	11.4 KSF Auto Repair and 30.2 KSF Warehouse	105	30.3	64.0	-41.6
2425 Valdez St.	3	Constructed	71	1.5	0	0	Parking Lot	71	1.5	0	0
3093 Broadway	5	Under Construction	423	20.0	0	0	40.2 KSF Auto Dealership	423	-20.2	0	0
2302 Valdez St.	2	Under Construction	196	31.3	0	0	3.6 KSF Auto Repair	196	31.3	0	-3.6
2270 Broadway	1	Approved	223	5.0	0	0	Parking Lot	223	5.0	0	0
2315 Valdez/ 2330 Webster St.	1	Approved	235	16.0	0	0	Parking Lot	235	16.0	0	0
2630 Broadway	3	Under Construction	255	37.5	0	0	Parking Lot/Vacant	255	37.5	0	0
3416 Piedmont Ave.	5	Approved	6	1.5	0	0	Vacant Lot	6	1.5	0	0
2400 Valdez St.	2	Under Construction	224	23.5	0	0	Parking Lot	224	23.5	0	0
3000 Broadway	5	Approved	127	8.0	0	0	3 Dwelling Units, 8.8 KSF Restaurant, and 10.2 KSF Auto Repair	124	-0.8	0	-10.2
2820 Broadway	4	Approved	218	18.0	0	0	42.2 KSF Auto Dealership	218	-24.2	0	0
24th and Harrison	2	Approved	437	65.0	0	0	55.2 KSF Auto Dealership, 5.3 KSF Auto Repair, and 3.25 KSF Fitness	437	6.6	0	-5.3
2401 Broadway	3	Proposed	147	45.0	18.0	0	15.5 KSF Auto Dealership, and 7.1 KSF Retail	147	22.4	18.0	0
2424 Webster	3	Proposed	0	10.0	48.8	0	12.5 KSF Retail	0	-2.5	48.8	0
2500 Webster	3	Proposed	30	6.4	0	0	6.3 KSF Auto Dealership	30	0.1	0	0
3300 Broadway	5	Proposed	45	3.0	0	0	5.5 KSF Retail	45	-2.5	0	0
2305 Webster St	1	Proposed	130	3.0	0	0	Parking Lot	130	3.0	0	0
Total			**2,872**	**361.0**	**130.8**	**0**		**2,869**	**164.5**	**130.8**	**-60.7**

[a] DU = dwelling units, ksf = 1,000 square feet
[b] Consists of active uses at the time the BVDSP EIR was prepared.
[c] Retail and non-retail uses (such as auto repair and warehouses) are presented separately because the non-retail uses generate fewer trips than typical retail uses.
Source: City of Oakland, February 2017.

Table 8 Development Comparison within the Plan Area, Valdez Triangle, and Subdistrict 1

	Residential (DU)	Retail (KSF)	Office (KSF)	Hotel (Rooms)
Plan Area (Subdistricts 1 through 5)				
Constructed, Under Construction, Approved, and Proposed Development Projects[a]	2,869	164.5	130.8	0
Development Program Buildout[b]	1,797	1,114.1	694.9	180
Percent Completed	160%	15%	19%	0%
Valdez Triangle (Subdistricts 1 through 3)				
Constructed, Under Construction, Approved, and Proposed Development Projects[a]	2,053	174.7	130.8	0
Development Program Buildout[b]	965	793.5	116.1	180
Percent Completed	213%	22%	113%	0%
Subdistrict 1				
Constructed, Under Construction, Approved, and Proposed Development Projects[a]	693	54.3	64.0	0
Development Program Buildout[b]	438	153.9	0	180
Percent Completed	158%	35%	NA	0%

Notes: DU = dwelling units, KSF = 1,000 square feet.
[a] Information from City of Oakland, February 2017. Accounts for existing active uses that would be eliminated.
[b] Based on Table 4.13-7 on page 4.13-37 of BVDSP Draft EIR.
Source: Fehr & Peers, 2017.

Table 9 Trip Generation Comparison

	Weekday AM Peak Hour			Weekday PM Peak Hour		
	In	Out	Total	In	Out	Total
Plan Area (Subdistricts 1 through 5)						
Constructed, Development Projects Approved, Proposed, or Under Construction[a]	287	676	956	988	780	1,768
Development Program Buildout[b]	1,152	829	1,981	1,702	2,007	3,709
Percent Completed	25%	81%	48%	58%	39%	48%
Valdez Triangle (Subdistricts 1 through 3)						
Constructed, Development Projects Approved, Proposed, or Under Construction[a]	244	492	736	743	621	1,363
Development Program Buildout[b]	457	442	899	1,013	993	2,006
Percent Completed	53%	111%	82%	73%	62%	68%

	Weekday AM Peak Hour			Weekday PM Peak Hour		
	In	Out	Total	In	Out	Total
Subdistrict 1						
Constructed, Development Projects Under Construction, Approved, or Proposed	91	178	269	228	179	407
Development Program Buildout[b]	118	165	283	273	233	506
Percent Completed	77%	108%	95%	84%	77%	80%

[a] Based on application of the BVDSP trip generation model with the developments shown in Table 7, and accounting for the trips generated by existing uses that would be eliminated.
[b] Based on Table 4.13-10 on page 4.13-43 of the BVDSP EIR.
Source: Fehr & Peers, 2017.

Trips generated by the proposed project, together with trips generated by other projects that are constructed, currently under construction, approved, or proposed for development in the Plan Area, would represent approximately 48 percent of the AM and 48 percent of the PM peak-hour trips anticipated in the BVDSP EIR, 82 percent of the AM and 68 percent of the PM peak-hour trips anticipated in the BVDSP EIR for the Valdez Triangle subarea, and 95 percent of the AM and 80 percent of the PM peak-hour trips anticipated in the BVDSP EIR for Subdistrict 1.

In general, the outbound trips generated by the Valdez Triangle (Subdistricts 1 through 3) and Subdistrict 1 during the AM peak hour would exceed the outbound AM peak hour trip generation estimated for the Development Program in the BVDSP EIR, but the total AM peak hour trip generation would continue to remain below the BVDSP EIR trip generation estimate. Because the overall AM peak hour trip generation is below the BVDSP EIR, none of the BVDSP EIR impacts are triggered during the AM peak hour. Therefore, this exceedance will not result in additional impacts based on the analysis completed for the BVDSP EIR.

The exceedance in the AM peak hour would not affect intersection operations beyond the ones identified as having a significant impact and discussed in the next section. Furthermore, considering that the BVDSP EIR analyzed the impacts of the Development Program at signalized intersections in the immediate vicinity of the project site, the proposed project would not cause additional impacts beyond those analyzed in the BVDSP EIR, nor would it increase the magnitude of the impacts identified in the BVDSP EIR.

Traffic Impacts at BVDSP EIR Intersections. The BVDSP EIR identifies 28 significant impacts at intersections that serve the Plan Area. It also identifies the specific level of development in the Plan Area and/or each subdistrict that would trigger each impact and its associated mitigation measure(s). Impacts are triggered when a certain percentage of

overall project buildout is met. The impacts, the reason for triggering the impacts, and the mitigation measures are described below.

1. The proposed project, combined with other projects that are under construction, approved, or proposed for development in the Plan Area, would trigger **Impact TRANS-2** under existing plus-project conditions (and also **Impact TRANS-7** under 2020 plus-project conditions and **Impact TRANS-17** under 2035 plus-project conditions) at the Perry Place/I-580 eastbound ramps/Oakland Avenue intersection because these projects, when combined, would generate more than 15 percent of the total traffic generated by the Development Program.

   Mitigation Measure TRANS-2 in the BVDSP EIR includes the following improvements at this intersection:

   1. Optimize signal timing (i.e., change the amount of green time assigned to each lane of traffic) for the PM peak hour, and
   2. Coordinate signal timing changes at this intersection with adjacent intersections that are in the same signal coordination group. This intersection is under the jurisdiction of the California Department of Transportation (Caltrans), so any equipment or facility upgrades must be approved by Caltrans prior to installation.

   The BVDSP EIR determined that, if implemented, the mitigation measure would mitigate the significant impact at this intersection. However, it is not certain whether this mitigation measure could be implemented because the intersection is under the jurisdiction of Caltrans. The City of Oakland, as lead agency, does not have jurisdiction at this intersection; the mitigation would need to be approved and implemented by Caltrans. Therefore, the BVDSP EIR considered the impact significant and unavoidable.

2. The proposed project, combined with other projects that are under construction, approved, or proposed for development in the Plan Area, would trigger **Impact TRANS-5** under existing plus-project conditions (and also **Impact TRANS-11** under 2020 plus-project conditions and **Impact TRANS-25** under 2035 plus-project conditions) at the 23rd Street/Broadway intersection because these projects, when combined, would generate more than 65 percent of the total traffic generated by the Broadway Valdez Development Program in the Valdez Triangle (Subdistricts 1, 2, and 3).

   Mitigation Measure TRANS-5 in the BVDSP EIR includes the following improvements at the 23rd Street/Broadway intersection:

   1. Signalize the intersection providing actuated operations, with permitted left turns on all movements

2. Coordinate the signal timing changes at this intersection with the adjacent intersections that are in the same signal coordination group

The BVDSP EIR determined that, if implemented, the mitigation measure would reduce the impact to a less than significant level.

3. The proposed project, combined with other projects that are under construction, approved, or proposed for development in the Plan Area, would trigger **Impact TRANS-10** under 2020 plus-project conditions (and also **Impact TRANS-24** under 2035 plus-project conditions) at the 27th Street/24th Street/Bay Place/Harrison Street intersection because these projects, when combined, would generate more than 10 percent of the total traffic generated by the Development Program.

   Mitigation Measure TRANS-10 in the BVDSP EIR includes the following improvements at this intersection:

   1. Reconfigure the 24th Street approach at the intersection to restrict access (i.e., right turns only from 27th Street to 24th Street) and create a pedestrian plaza at the intersection approach;
   2. Convert 24th Street between Valdez and Harrison Streets to two-way circulation and allow right turns from 24th Street to southbound Harrison Street south of the intersection, which would require acquisition of private property in the southwest corner of the intersection;
   3. Modify the eastbound 27th Street approach from the current configuration (i.e., one right-turn lane, two through lanes, and one left-turn lane) to provide one right-turn lane, one through lane, and two left-turn lanes;
   4. Realign pedestrian crosswalks to shorten pedestrian crossing distances;
   5. Reduce the length of the signal cycle from 160 to 120 seconds and optimize signal timing (i.e., change the amount of green time assigned to each lane of traffic); and
   6. Coordinate signal timing changes at this intersection with adjacent intersections that are in the same signal coordination group.

   The BVDSP EIR determined that, if implemented, the mitigation measure would reduce the magnitude of the impact but would not mitigate the impact to a less than significant level. Therefore, the BVDSP EIR considered the impact significant and unavoidable.

4. The proposed project, combined with other projects that are under construction, approved, or proposed for development in the Plan Area, would trigger **Impact TRANS-22** under 2035 plus-project conditions at the 27th Street/Broadway intersection because these projects, when combined, would generate more than 30 percent of the total traffic generated by the Development Program.

Mitigation Measure TRANS-22 in the BVDSP EIR includes the following improvements at this intersection:

1. Upgrade traffic signal operations at the intersection to actuated coordinated;
2. Reconfigure the westbound 27th Street approach to provide a 150-foot left-turn pocket, one through lane, and one shared through/right-turn lane;
3. Provide protected left-turn phases for the northbound and southbound approaches;
4. Optimize signal timing (i.e., change the amount of green time assigned to each lane of traffic); and
5. Coordinate signal timing changes at this intersection with adjacent intersections that are in the same signal coordination group.

The BVDSP EIR determined that, if implemented, the mitigation measure would reduce the magnitude of the impact but would not mitigate the impact to a less than significant level. Therefore, the BVDSP EIR considered the impact significant and unavoidable.

According to the BVDSP EIR, the project sponsor would fund the cost of preparing and funding these mitigation measures. Alternatively, if the City of Oakland adopted the BVDSP or the citywide Transportation Impact Fee (TIF) program, the project sponsor could pay the applicable TIF to mitigate project impacts, as identified above. On May 3, 2016, the City of Oakland adopted a citywide TIF program. It went into effect on September 1, 2016. The proposed project sponsor may elect to pay the applicable TIF to mitigate project impacts.

Additional Study Intersections. The *City of Oakland Transportation Impact Study Guidelines* require analysis of project impacts at intersections adjacent to the project site, signalized and all-way stop-controlled intersections where the project would add 50 or more peak hour trips, and side-street stop-controlled intersections where the project would add ten or more trips to the stop-controlled approach. The BVDSP EIR did not analyze the side-street stop-controlled 23rd Street/Webster Street intersection which is adjacent to the southeast corner of the project site.

The proposed project would add fewer than 50 peak hour trips at the 23rd Street/Webster Street Intersection. This intersection was studied in the *2315 Valdez Street/2330 Webster Street—Final Transportation Assessment* (June 14, 2015). That analysis concluded the intersection would operate at LOS B during both AM and PM peak hours. A significant impact would occur at the intersection if the it would satisfy the peak hour signal warrant after the completion of the project. The additional traffic generated by the proposed project at this intersection, combined with existing traffic and traffic generated by other projects that are constructed, currently under construction, approved, or proposed for

development in the Plan Area, would not satisfy the peak hour signal warrant, which is based on specific volume thresholds for each intersection approach, after the completion of the proposed project.

Beyond the intersections discussed above, the proposed project is not expected to add 50 or more peak hour trips to signalized or all-way stop-controlled intersections, nor add ten or more peak hour trips to the stop-controlled approach of side-street stop-controlled intersections in the vicinity that were not analyzed in BVDSP EIR. Therefore, analysis of additional intersections beyond the ones analyzed in the BVDSP EIR is not needed. Overall, the proposed project would not result in impacts on traffic operations at the intersections beyond the ones identified in the BVDSP EIR. In addition, the proposed project also would not increase the magnitude of the impacts identified in the BVDSP EIR.

The combined trip generation for projects that are currently approved, proposed, or under construction in the Plan Area and the Valdez Triangle including the proposed project, remains lower than the estimated trip generation in the BVDSP EIR under the Development Program for those areas. Although the outbound trip generation during the weekday AM peak hour for Subdistrict 1 would exceed the estimate for the Development Program in the BVDSP EIR, the exceedance is not expected to cause additional significant impacts beyond the ones identified in the BVDSP EIR.

Additionally, the proposed project would not result in significant impacts to the intersections not analyzed in the BVDSP EIR. Therefore, the project would not cause additional impacts beyond the locations analyzed in the EIR; nor would the project increase the magnitude of the impacts identified in the EIR. In addition, the project would not result in any significant impacts to vehicle access and circulation, bicycle access and bicycle parking, pedestrian access and circulation, and transit access, consistent with the findings of the BVDSP EIR.

Based on an examination of the analysis, findings, and conclusions of the BVDSP EIR, implementation of the proposed project would not substantially increase the severity of significant impacts identified in the BVDSP EIR, nor would it result in new significant impacts related to transportation and circulation that were not identified in the BVDSP EIR. The proposed project combined with other projects under construction, approved, and proposed for development in the Plan Area, would trigger and be required to implement Mitigation Measures TRANS-2, TRANS-5, TRANS-10, and TRANS-22, as described in the EIR, or pay the applicable TIF to mitigate project impacts based on its fair-share contribution to those impacts. The proposed project would also be required to implement SCAs related to city review and approval of all improvements proposed in the public right-of-way, reduction of vehicle traffic and parking demand generated by development projects, and construction traffic and parking management, as identified in Attachment A, at the end of the CEQA Checklist (SCA-TRANS-1: *Construction Activity in the Public Right-of-Way*, SCA-

TRANS-2: *Bicycle Parking*, SCA-TRANS-3: *Transportation Improvements*, and SCA-TRANS-4: *Transportation and Parking Demand Management*).

In addition, the proposed project would implement the following recommended improvement measures related to vehicle and bicycle access and circulation and bicycle parking, although the improvement measures are not required to address CEQA impacts.

Recommended Improvement: Although not required to address a CEQA impact, the following should be considered as part of the final design and/or conditions of approval of the project:

- Ensure that the project driveway on Webster Street would provide adequate sight distance[28] between motorists exiting the driveway and pedestrians on the adjacent sidewalks. This may require redesigning and/or widening the driveway. If adequate sight distance cannot be provided, consider providing audio and/or visual warning devices at the driveway.
- To ensure adequate sight distance for motorists entering and exiting the garage driveways, prohibit on-street parking within 20 feet on either side of the garage driveways on Webster Street if feasible.

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[28] Sight distance is dependent on each specific location; typically, adequate sight distance is defined as a clear line-of-sight between a motorist ten feet back from the sidewalk and a pedestrian ten feet away on each sides of the driveway.

14. Utilities and Service Systems

Would the project:	Equal or Less Severity of Impact Previously Identified in BVDSP EIR	Substantial Increase in Severity of Previously Identified Significant Impact in EIR	New Significant Impact
a. Exceed wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board; Require or result in construction of new storm water drainage facilities or expansion of existing facilities, construction of which could cause significant environmental effects; Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the providers' existing commitments and require or result in construction of new wastewater treatment facilities or expansion of existing facilities, construction of which could cause significant environmental effects;	☒	☐	☐
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, 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, construction of which could cause significant environmental effects; Violate applicable federal, state, and local statutes and regulations related to solid waste;	☒	☐	☐

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

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

As described in the BVDSP EIR, EBMUD has accounted for the water demand projections associated with development under the BVDSP; and the BVDSP EIR determined that development under the BVDSP would not require new water supply entitlements, resources, facilities, or expansion of existing facilities beyond those already planned, and that impacts related to water supplies would be less than significant.

The BVDSP EIR also determined that development under the BVDSP would have less than significant impacts related to stormwater and wastewater facilities. Much of the Plan 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.

On the other hand, development projects may increase sewer capacity demand. Implementation of SCAs requiring stormwater control during and after construction would address potential impacts on stormwater treatment and sanitary sewer infrastructure.

Solid Waste Services (Criterion 14c)

As described in the BVDSP EIR, impacts associated with solid waste would be less than significant. Nonhazardous solid waste in the Plan 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 BVDSP. In addition,

implementation of an SCA pertaining to waste reduction and recycling would reduce waste through compliance with the City of Oakland's Recycling Space Allocation Ordinance (Oakland Municipal Code, Chapter 17.118).

Energy (Criterion 14d)

Development under the BVDSP 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. SCAs pertaining to compliance with the green building ordinance would require construction projects to incorporate energy-conserving design measures.

Project Analysis and Conclusion

The BVDSP allows for flexibility with respect to the quantity and profile of future development within each subarea and between subareas as long as such development conforms to the general traffic generation parameters established by the Plan. The Development Program is not intended to be a cap that restricts development. The proposed project would result in a net increase in the number of dwelling units on the site (i.e., 130 units) and the square footage of commercial/retail uses (approximately 3,000 square feet). This difference, however, represents minor net changes in the Development Program in terms of environmental impacts because the proposed project conforms to the traffic generation parameters analyzed in the BVDSP EIR, as described above in Section 13, Transportation and Circulation. As such, the proposed project is within the envelope of the Development Program analyzed in the BVDSP EIR. As shown in Table 7, the proposed project when considered with other approved and constructed projects within the BVDSP would still remain below the anticipated development footprint. The proposed project would result in only approximately five percent of the residential units proposed for the BDVSP, and approximately one percent of the proposed retail/commercial space.

The water and sanitary sewer demand and stormwater facilities, as well as solid waste and energy associated with the proposed project, are consistent with the Development Program analyzed in the BVDSP EIR. All on-site utilities would be designed in accordance with applicable codes and current engineering practices. In relation to stormwater, the project would be served by the City of Oakland's Basin 52 and sub-basin 5205. The BVDSP states that sub-basins 5205, 5206, 5209, 5210, and 5211, do not have additional capacity. The project would need to comply with SCA-UTIL-1: *Sanitary Sewer System*, which would require the project sponsor to construct necessary future sanitary sewer infrastructure improvements which would either contribute to the cost of replacing pipes for the local collection system to increase capacity or be used to perform inflow and infiltration rehabilitation projects outside of the Plan Area, as described in the BVDSP EIR. The project sponsor may accomplish this by paying a sewer mitigation fee, which would either contribute to the cost of replacing pipes for the local collection system to increase

capacity or be used to perform inflow and infiltration rehabilitation projects outside of the Plan Area, as described in the BVDSP EIR. By complying with these SCAs, impacts related to wastewater treatment providers would not exceed the severity of the impacts previously identified in the BVDSP EIR.

The project would not result in the net increase in impervious surface area to the Plan Area. The site is currently a parking lot, and is completely paved. The project would have to comply with SCA-UTIL-2: *Storm Drain System* to ensure stormwater runoff from the project site would be reduced by at least 25 percent compared to the pre-project conditions.

Solid waste would be produced during construction activities as well as during general operation of the proposed project. The proposed project would be required to comply with SCA-UTIL-3: *Construction and Demolition Waste Reduction and Recycling* which requires the project sponsor to submit a Construction and Demolition Waste Reduction and Recycling Plan (WRRP) for City review and approval. It would also have to comply with SCA-UTIL-4: *Recycling Collection and Storage Space*, which requires that project drawings containing recycling collection and storage areas be submitted to the City in compliance with the City of Oakland Recycling Space Allocation Ordinance (chapter 17.118 of the Oakland Planning Code).

Further, the proposed project would be required to comply with project SCA-UTIL-5: *Green Building Requirements* which requires construction projects to integrate energy-saving design measures into the project.

Based on an examination of the analysis, findings, and conclusions in the BVDSP EIR, implementation of the proposed project would not substantially increase the severity of the significant impacts identified in that EIR, nor would it result in new significant impacts related to utilities and service systems that were not identified in the BVDSP EIR. The BVDSP EIR did not identify any mitigation measures related to utilities and service systems, and none would be required for the proposed project. The proposed project would be required to implement SCAs related to construction and demolition waste reductions and recycling, underground utilities, recycling collection and storage space, "green" building requirements, a sanitary sewer system, and the storm drain system, as identified in Attachment A at the end of the CEQA checklist (SCA-UTIL-1: *Sanitary Sewer System*, SCA-UTIL-2: *Storm Drain System,* SCA-UTIL-3: *Construction and Demolition Waste Reduction and Recycling*, SCA-UTIL-4: *Recycling Collection and Storage Space*, SCA-UTIL-5: *Green Building Requirements*).

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 2305 Webster Street mixed-use residential development.

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 ("MM") recommended in the EIR and identifies mitigation monitoring requirements, as well as the City's Standard Conditions of Approval ("SCA") identified in the EIR as measures that would minimize potential adverse effects that could result from implementation of the project, to ensure the conditions are implemented and monitored.

All MMs and SCAs identified in the CEQA Analysis, which is consistent with the measures and conditions presented in the BVDSP EIR, are included herein. To the extent that there is any inconsistency between the SCA and MM, the more restrictive conditions shall govern; to the extent any MM and/or SCA identified in the CEQA Analysis were inadvertently omitted, they are automatically incorporated herein by reference.

- The first column identifies the SCA and MM applicable to that topic in the CEQA Analysis.
- The second column identifies the monitoring schedule or timing applicable to the project.
- The third column names the party responsible for monitoring the required action for the proposed project.

The project sponsor is responsible for compliance with any recommendations in approved technical reports, all applicable mitigation measures adopted and with all conditions of approval set forth herein at its sole cost and expense, unless otherwise expressly provided in a specific mitigation measure or condition of approval, 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 Planning and Zoning Division. 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.

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
Aesthetics, Shadow and Wind			
SCA-AES-1 *Graffiti Control.* a. During construction and operation of the project, the project sponsor 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 sponsor 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. . Replacing with new surfacing (with City permits if required).	Ongoing	N/A	Bureau of Building
SCA-AES-2: *Landscape Plan.* a. *Landscape Plan Required* The project sponsor 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. *Landscape Installation* The project sponsor 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	Prior to approval of construction-related permit Prior to building permit final Ongoing	Bureau of Planning Bureau of Planning N/A	N/A Bureau of Building Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
$2,500 or the estimated cost of implementing the Landscape Plan based on a licensed contractor's bid. c. *Landscape Maintenance* 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.			
SCA-AES-3: *Lighting.* 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
Air Quality			
SCA-AIR-1: *Construction-Related Air Pollution Controls (Dust and Equipment Emissions).* The project sponsor shall implement all of the following applicable air pollution control measures during construction of the project: a. Water all exposed surfaces of active construction areas at least twice daily. Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever feasible. b. Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer). c. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. d. Pave all roadways, driveways, sidewalks, etc. 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. e. Enclose, cover, water twice daily, or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.).	During construction	N/A	Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
f. Limit vehicle speeds on unpaved roads to 15 miles per hour.			
g. 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.			
h. 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").			
i. 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.			
j. 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.			
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.			
l. All excavation, grading, and demolition activities shall be suspended when average wind speeds exceed 20 mph.			
m. Install sandbags or other erosion control measures to prevent silt runoff to public roadways.			
n. Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for one month or more).			
o. Designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust off-site. Their duties shall include holidays and weekend periods when work may not be in progress.			
p. Install appropriate wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas			

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
of the construction site to minimize wind-blown dust. Wind breaks must have a maximum 50 percent air porosity. 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. 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. s. All trucks and equipment, including tires, shall be washed off prior to leaving the site. 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. 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 sponsor shall provide written documentation that fleet requirements have been met. v. Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., BAAQMD Regulation 8, Rule 3: Architectural Coatings). w. All construction equipment, diesel trucks, and generators shall be equipped with Best Available Control Technology for emission reductions of NO_x and PM. x. Off-road heavy diesel engines shall meet the California Air Resources Board's most recent certification standard. 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.			
Note: Screening analysis demonstrated that the proposed project would be below the applicable threshold. No further action is required under this SCA. **SCA-AIR-2:** *Exposure to Air Pollution (Toxic Air Contaminants).*	Ongoing	N/A	Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
a. Health Risk Reduction Measures The project sponsor shall incorporate appropriate measures into the project design in order to reduce the potential health risk due to exposure to toxic air contaminants. b. Maintenance of Health Risk Reduction Measures The project sponsor shall maintain, repair, and/or replace installed health risk reduction measures, including but not limited to the HVAC system (if applicable), on an ongoing and as-needed basis. Prior to occupancy, the project sponsor shall prepare and then distribute to the building manager/operator an operation and maintenance manual for the HVAC system and filter including the maintenance and replacement schedule for the filter.			
Note: Screening analysis demonstrated that the proposed project would be below the applicable threshold. No further action is required under this SCA. **SCA-AIR-3:** *Stationary Sources of Air Pollution (Toxic Air Contaminants).* The project sponsor 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.	Prior to approval of construction-related permit	Bureau of Planning	Bureau of Building
Transportation and Parking Demand Management (TDM) Plan Required. Refer to SCA-TRANS-4 under Transportation.	See below.	See below.	See below.
Biological Resources			
SCA-BIO-1: *Tree Removal During Bird Breeding Season.* To the extent feasible, removal of any tree and/or other vegetation suitable for nesting of birds shall not occur during the bird breeding season of February 1 to August 15 (or during December 15 to August 15 for trees located in or near marsh, wetland, or aquatic habitats). If tree removal must occur during the bird breeding season, all trees to be removed shall be surveyed by a qualified biologist to verify the presence or absence of nesting raptors or other birds. Pre-removal surveys shall be conducted within 15 days prior to the start of work and shall be submitted to the City for review and approval. If the survey indicates the potential presence of nesting raptors or other birds, the biologist shall determine an appropriately sized buffer around the nest in which no work will be allowed until	Prior to removal of trees	Bureau of Building.	Bureau of Building.

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
the young have successfully fledged. The size of the nest buffer will be determined by the biologist in consultation with the California Department of Fish and Wildlife, and will be based to a large extent on the nesting species and its sensitivity to disturbance. In general, buffer sizes of 200 feet for raptors and 50 feet for other birds should suffice to prevent disturbance to birds nesting in the urban environment, but these buffers may be increased or decreased, as appropriate, depending on the bird species and the level of disturbance anticipated near the nest.			
SCA-BIO-2: *Tree Removal Permit.* ***Tree Permit required.*** 1. Pursuant to the City's Tree Protection Ordinance (OMC chapter 12.36), the project applicant shall obtain a tree permit and abide by the conditions of that permit. ***Tree Protection During Construction*** 2. Adequate Protection shall be provided during the construction period for any trees which are to remain standings, including the following, plus any recommendations of an arborist: i. Before the start of any clearing, excavation, construction, or other work on the site, every protected tree deemed to be potentially endangered by said site work shall be securely fenced off at a distance from the base of the tree to be determined by the project's consulting arborist. Such fences shall remain in place for duration of all such work. All trees to be removed shall be clearly marked. A scheme shall be established for the removal and disposal of logs, brush, earth and other debris which will avoid injury to any protected tree. ii. Where proposed development or other site work is to encroach upon the protected perimeter of any protected tree, special measures shall be incorporated to allow the roots to breathe and obtain water and nutrients. Any excavation, cutting, filing, or compaction of the existing ground surface within the protected perimeter shall be minimized. No change in existing ground level shall occur within a distance to be determined by the project's consulting arborist from the base of any protected tree at any time. No burning or use of equipment with an open flame shall occur near or within the protected perimeter of any protected tree. iii. No storage or dumping of oil, gas, chemicals,	Prior to approval of construction-related permit During Construction Prior to building permit final	Permit approval by Public Works Department, Tree Division; evidence of approval submitted to Bureau of Building Public Works Department, Tree Division Public Works Department, Tree Division	Bureau of Building Bureau of Building Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
or other substances that may be harmful to trees shall occur within the distance to be determined by the project's consulting arborist from the base of any protected trees, or any other location on the site from which such substances might enter the protected perimeter. No heavy construction equipment or construction materials shall be operated or stored within a distance from the base of any protected trees to be determined by the project's consulting arborist. Wires, ropes, or other devices shall not be attached to any protected tree, except as needed for support of the tree. No sign, other than a tag showing the botanical classification, shall be attached to any protected tree. iv. Periodically during construction, the leaves of protected trees shall be thoroughly sprayed with water to prevent buildup of dust and other pollution that would inhibit leaf transpiration. v. If any damage to a protected tree should occur during or as a result of work on the site, the project applicant shall immediately notify the Public Works Department and the project's consulting arborist shall make a recommendation to the City Tree Reviewer as to whether the damaged tree can be preserved. If, in the professional opinion of the Tree Reviewer, such tree cannot be preserved in a healthy state, the Tree Reviewer shall require replacement of any tree removed with another tree or trees on the same site deemed adequate by the Tree Reviewer to compensate for the loss of the tree that is removed. vi. All debris created as a result of any tree removal work shall be removed by the project applicant from the property within two weeks of debris creation, and such debris shall be properly disposed of by the project applicant in accordance with all applicable laws, ordinances, and regulations.			
Tree Replacement Plantings 1. Replacement plantings shall be required for tree removals for the purposes of erosion and control, groundwater replenishment, visual screening, wildlife habitat, and preventing excessive loss of shade, in accordance with the following criteria: i. No tree replacement shall be required for the removal of nonnative species, for the removal of trees which is required for the benefit of remaining trees, or where insufficient planting			

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
area exists for a mature tree of the species being considered. ii. Replacement tree species shall consist of *Sequoia sempervirens* (Coast Redwood), *Quercus agrifolia* (Coast Live Oak), *Arbutus menziesii* (Madrone), *Aesculus californica* (California Buckeye), *Umbellularia californica* (California Bay Laurel), or other tree species acceptable to the Tree Division. iii. Replacement trees shall be at least twenty-four (24) inch box size, unless a smaller size is recommended by the arborist, except that three fifteen (15) gallon size trees may be substituted for each twenty-four (24) inch box size tree where appropriate. iv. Minimum planting areas must be available on site as follows: • For Sequoia sempervirens, three hundred fifteen (315) square feet per tree; • For other species listed, seven hundred (700) square feet per tree. v. In the event that replacement trees are required but cannot be planted due to site constraints, an in lieu fee in accordance with the City's Master Fee Schedule may be substituted for required replacement plantings, with all such revenues applied toward tree planting in city parks, streets and medians. vi. The project applicant shall install the plantings and maintain the plantings until established. The Tree Reviewer of the Tree Division of the Public Works Department may require a landscape plan showing the replacement plantings and the method of irrigation. Any replacement plantings which fail to become established within one year of planting shall be replanted at the project applicant's expense.			
Cultural Resources			
SCA-CUL-1: *Archaeological and Paleontological Resources—Discovery During Construction.* 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 sponsor shall notify the City and consult with a qualified archaeologist or paleontologist, as applicable, to assess	During construction	N/A	Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
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. In the event of data recovery of archaeological resources, the project sponsor 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 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 sponsor shall implement the ARDTP at his/her expense. In the event of excavation of paleontological resources, the project sponsor 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 sponsor.			

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
SCA-CUL-2: *Human Remains—Discovery During Construction.* 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 sponsor 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 sponsor.	During construction	N/A	Bureau of Building
Geology, Soils and Geohazards			
SCA-GEO-1: *Construction-Related Permit(s).* The project sponsor 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.	Prior to approval of construction-related permit	Bureau of Building	Bureau of Building
SCA-GEO-2 *Soils Report.* The project sponsor 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 recommendations for appropriate grading practices and project design. The project sponsor shall implement the recommendations contained in the approved report during project design and construction.	Prior to approval of construction-related permit	Bureau of Building	Bureau of Building
Hazards and Hazardous Materials			
SCA-HAZ-1: *Hazardous Materials Related to Construction.* The project sponsor shall ensure that Best Management	During construction	N/A	Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
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: 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); and 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 project sponsor shall cease work in the vicinity of the suspect material, the area shall be secured as necessary, and the project sponsor 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.			
SCA-HAZ-2: *Hazardous Building Materials and Site Contamination* **Hazardous Building Materials Assessment** Requirement: 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 materials by State or federal law. If lead-based paint, ACMs, PCBs, or any other building	Prior to approval of construction-related permit Prior to approval of construction-related permit During construction	Oakland Fire Department Bureau of Building N/A	Oakland Fire Department Bureau of Building Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
materials or stored materials classified as hazardous materials 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. 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. When Required: Prior to approval of demolition, grading, or building permits. Initial Approval: Bureau of Building Monitoring/Inspection: Bureau of Building ***Environmental Site Assessment Required*** Requirement: 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. When Required: Prior to approval of construction-related permit Initial Approval: Applicable regulatory agency with jurisdiction Monitoring/Inspection: Applicable regulatory agency with jurisdiction ***Health and Safety Plan Required*** Requirement: 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. When Required: Prior to approval of construction-related permit Initial Approval: Bureau of Building Monitoring/Inspection: Bureau of Building			

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
Best Management Practices (BMPs) Required for Contaminated Sites Requirement: 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: 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 be utilized, which include impermeable barriers to prohibit groundwater and vapor intrusion into the building. When Required: During construction Initial Approval: N/A Monitoring/Inspection: Bureau of Building			
Hydrology and Water Quality			
SCA-HYD-1: *Erosion and Sedimentation Control Plan for Construction.* *a. Erosion and Sedimentation Control Plan Required* The project sponsor 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	Prior to approval of construction-related permit During construction	Bureau of Building N/A	N/A Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring		
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sediment, and stormwater retention basins. Off-site work by the project sponsor may be necessary. The project sponsor 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 sponsor shall ensure that the storm drain system shall be inspected and that the project sponsor shall clear the system of any debris or sediment. *b. Erosion and Sedimentation Control During Construction* The project sponsor 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.			
SCA-HYD-2*: State Construction General Permit.* The project sponsor shall comply with the requirements of the Construction General Permit issued by the State Water Resources Control Board (SWRCB). The project sponsor shall submit a Notice of Intent (NOI), Stormwater Pollution Prevention Plan (SWPPP), and other required Permit Registration Documents to SWRCB. The project sponsor shall submit evidence of compliance with Permit requirements to the City.	Prior to approval of construction-related permit	State Water Resources Control Board; evidence of compliance submitted to Bureau of Building	State Water Resources Control Board
SCA-HYD-3: *NPDES C.3 Stormwater Requirements for Regulated projects.* *a. Post-Construction Stormwater Management Plan Required* The project sponsor shall comply with the requirements of Provision C.3 of the Municipal Regional Stormwater Permit issued under the National Pollutant Discharge Elimination System (NPDES). The project sponsor 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: i. Location and size of new and replaced impervious surface; ii. Directional surface flow of stormwater runoff; iii. Location of proposed on-site storm drain lines; iv. Site design measures to reduce the amount of	Prior to approval of construction-related permit Prior to building permit final	Bureau of Planning; Bureau of Building Bureau of Building	Bureau of Building Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
impervious surface area; v. Source control measures to limit stormwater pollution; vi. Stormwater treatment measures to remove pollutants from stormwater runoff, including the method used to hydraulically size the treatment measures; and vii. Hydromodification management measures, if required by Provision C.3, so that post-project stormwater runoff flow and duration match pre-project runoff. *b. Maintenance Agreement Required* The project sponsor 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: i. The project sponsor 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 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. The maintenance agreement shall be recorded at the County Recorder's Office at the project sponsor's expense.			
Noise			
SCA-NOI-1: *Construction Days/Hours.* The project sponsor shall comply with the following restrictions concerning construction days and hours: 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. 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.	During construction	N/A	Bureau of Building

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	When Required	Initial Approval	Monitoring/ Inspection
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. c. No construction is allowed on Sunday or federal holidays. 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. Any construction activity proposed outside of the above days and hours for special activities (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 sponsor 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 sponsor 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.			
SCA-NOI-2: *Construction Noise.* The project sponsor shall implement noise reduction measures to reduce noise impacts due to construction. Noise reduction measures include, but are not limited to, the following: a. 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. b. 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	During construction	N/A	Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
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. c. Project sponsor shall use temporary power poles instead of generators where feasible. d. 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. e. 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.			
SCA-NOI-3: *Extreme Construction Noise.* *a. Construction Noise Management Plan Required* Prior to any extreme noise generating construction activities (e.g., pier drilling, pile driving and other activities generating greater than 90dBA), the project sponsor 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 sponsor shall implement the approved Plan during construction. Potential attenuation measures include, but are not limited to, the following: i. Erect temporary plywood noise barriers around the construction site, particularly along on sites adjacent to residential buildings; ii. 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; iii. Utilize noise control blankets on the building structure as the building is erected to reduce noise emission from the site; iv. 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	Prior to approval of construction-related permit During construction	Bureau of Building Bureau of Building	Bureau of Building Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
impacts; and v. Monitor the effectiveness of noise attenuation measures by taking noise measurements. *b. Public Notification Required* The project sponsor 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 sponsor 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.			
SCA-NOI-4: *Construction Noise Complaints.* The project sponsor 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: a. Designation of an on-site construction complaint and enforcement manager for the project; 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; c. Protocols for receiving, responding to, and tracking received complaints; and 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.	Prior to approval of construction-related permit	Bureau of Building	Bureau of Building
SCA-NOI-5: *Operational Noise.* 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.	Ongoing	N/A	Bureau of Building
SCA-NOI-6: *Exposure to Community Noise.* The project sponsor shall submit a Noise Reduction Plan prepared by a qualified acoustical engineer for City review and approval that contains noise reduction	Prior to approval of construction-related permit	Bureau of Planning	Bureau of Building

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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 project sponsor shall implement the approved Plan during construction. To the maximum extent practicable, interior noise levels shall not exceed the following: a. 45 dBA: Residential activities, civic activities, hotels b. 50 dBA: Administrative offices; group assembly activities c. 55 dBA: Commercial activities d. 65 dBA: Industrial activities			
Transportation and Circulation			
Mitigation Measure TRANS-2: Implement the following measures at the Perry Place/I 580 Eastbound Ramps/Oakland Avenue intersection: • Optimize signal timing (i.e., changing the amount of green time assigned to each lane of traffic approaching the intersection) for the PM peak hour • Coordinate the signal timing changes at this intersection with the adjacent intersections that are in the same signal coordination group. This intersection is under the jurisdiction of Caltrans so any equipment or facility upgrades must be approved by Caltrans prior to installation. • To implement this measure, the project sponsor shall submit the following to City of Oakland's Transportation Services Division and Caltrans for review and approval: • Plans, Specifications, and Estimates (PS&E) to modify intersection. All elements shall be designed to City and Caltrans standards in effect at the time of construction and all new or upgraded signals should include these enhancements. All other facilities supporting vehicle travel and alternative modes through the intersection should be brought up to both City standards and Americans with Disabilities Act (ADA) standards (according to Federal and State Access Board guidelines) at the time of construction. Current City Standards call for the elements listed below: • 2070L Type Controller with cabinet assembly • GPS communications (clock) • Accessible pedestrian crosswalks according to Federal and State Access Board guidelines with signals (audible and tactile) • Countdown pedestrian head module switch out • City standard ADA wheelchair ramps • Video detection on existing (or new, if required) • Mast arm poles, full actuation (where applicable)	Investigation of the need for this mitigation shall be studied and submitted for review and approval to the City of Oakland, at the time when about 15 percent of the Development Program is operational and every three years thereafter until 2035 or until the mitigation measure is implemented, whichever occurs first. The City of Oakland will notify the project Sponsor when this threshold is reached. If investigations at the required intervals show this mitigation is still required,		City of Oakland Planning and Building Department City of Oakland—Building Services Division, Zoning Inspection City of Oakland Transportation Services Division

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• Polara push buttons (full actuation) • Bicycle detection (full actuation) • Pull boxes • Signal interconnect and communication with trenching (where applicable), or through (E) conduit (where applicable)—600 feet maximum • Conduit replacement contingency • Fiber Switch • PTZ Camera (where applicable) • Transit Signal Priority (TSP) equipment consistent with other signals along corridor • Signal timing plans for the signals in the coordination group. The project sponsor shall fund the cost of preparing and implementing these plans. However, if the City adopts a transportation impact fee program prior to implementation of this mitigation measure, the project sponsor shall have the option to pay the applicable fee in lieu of implementing this mitigation measure and payment of the fee shall be considered the equivalent of implementing the mitigation measure, which would still result in significant unavoidable impacts. A straight line interpolation of intersection traffic volume between Existing and Existing Plus Project conditions indicates that mitigation at this intersection may be required when about 15 percent of the Development Program is developed. Investigation of the need for this mitigation shall be studied at the time when this threshold is reached and every three years thereafter until 2035 or until the mitigation measure is implemented, whichever occurs first.	the project Sponsor will submit Plans, Specifications, and Estimates (PS&E) for review and approval by the City for implementation of this mitigation.		
Mitigation Measure TRANS-10: Implement the following measures at the 27th Street/24th Street/Bay Place/Harrison Street intersection: • Reconfigure the 24th Street approach at the intersection to restrict access to 24th Street to right turns only from 27th Street and create a pedestrian plaza at the intersection approach. • Convert 24th Street between Valdez and Harrison Streets to two-way circulation and allow right turns from 24th Street to southbound Harrison Street south of the intersection, which would require acquisition of private property in the southwest corner of the intersection. • Modify eastbound 27th Street approach from the current configuration (one right-turn lane, two through lanes, and one left-turn lane) to provide one right-turn lane, one through lane, and two left-turn lanes. • Realign pedestrian crosswalks to shorten pedestrian crossing distances.	Investigation of the need for this mitigation shall be studied and submitted for review and approval to the City of Oakland, in 2016 (one year prior to the horizon date) and every three years thereafter until 2035 or until the mitigation measure is implemented, whichever		City of Oakland Planning and Building Department City of Oakland—Building Services Division, Zoning Inspection City of Oakland Transportation Services Division

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	When Required	Initial Approval	Monitoring/ Inspection
• Reduce signal cycle length from 160 to 120 seconds, and optimize signal timing (i.e., changing the amount of green time assigned to each lane of traffic approaching the intersection). • Coordinate the signal timing changes at this intersection with the adjacent intersections that are in the same signal coordination group. To implement this measure, the project sponsor shall submit the following to City of Oakland's Transportation Services Division for review and approval: • PS&E to modify intersection as detailed in Mitigation Measure TRANS-2. • Signal timing plans for the signals in the coordination group. The project sponsor shall fund the cost of preparing and implementing these plans. However, if the City adopts a transportation impact fee program prior to implementation of this mitigation measure, the project sponsor shall have the option to pay the applicable fee in lieu of implementing this mitigation measure and payment of the fee shall be considered the equivalent of implementing the mitigation measure, which would still result in significant unavoidable impacts. A straight line interpolation of intersection traffic volume between Existing and 2020 Plus project conditions indicates that mitigation at this intersection may be required by 2017. Investigation of the need for this mitigation shall be studied at that time and every three years thereafter until 2035 or until the mitigation measure is implemented, whichever occurs first.	occurs first. If investigations in 2016, or subsequent years, as stipulated above, show this mitigation is still required, submit Plans, Specifications, and Estimates (PS&E) for review and approval by the City for implementation of this mitigation. This requirement may be requested at an earlier date than listed if the improvements are needed as reasonably determined by the City.		
Mitigation Measure TRANS-22: Implement the following measures at the 27th Street/Broadway intersection: • Upgrade traffic signal operations at the intersection to actuated-coordinated operations • Reconfigure westbound 27th Street approach to provide a 150-foot left-turn pocket, one through lane, and one shared through/right-turn lane. • Provide protected left-turn phase(s) for the northbound and southbound approaches. • Optimize signal timing (i.e., changing the amount of green time assigned to each lane of traffic approaching the intersection). • Coordinate the signal timing changes at this intersection with the adjacent intersections that are in the same signal coordination group. To implement this measure, the project sponsor shall submit the following to City of Oakland's Transportation Services Division for review and	Investigation of the need for this mitigation shall be studied and submitted for review and approval to the City of Oakland, in 2023 (one year prior to the horizon date),and every three years thereafter until 2035 or until the mitigation measure is implemented, whichever		City of Oakland Planning and Building Department City of Oakland—Building Services Division, Zoning Inspection City of Oakland Transportation Services Division

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	When Required	Initial Approval	Monitoring/ Inspection
approval: • PS&E to modify intersection as detailed in Mitigation Measure TRANS-2. Signal timing plans for the signals in the coordination group. The project sponsor shall fund the cost of preparing and implementing these plans. However, if the City adopts a transportation impact fee program prior to implementation of this mitigation measure, the project sponsor shall have the option to pay the applicable fee in lieu of implementing this mitigation measure and payment of the fee shall be considered the equivalent of implementing the mitigation measure, which would still result in significant unavoidable impacts. A straight line interpolation of intersection traffic volume between Existing and 2035 Plus project conditions indicates that mitigation at this intersection may be required by 2024. Investigation of the need for this mitigation shall be studied at that time and every three years thereafter until 2035 or until the mitigation measure is implemented, whichever occurs first.	occurs first. If investigations in 2023, or subsequent years as stipulated above, show this mitigation is still required, submit Plans, Specifications, and Estimates (PS&E) for review and approval by the City for implementation of this mitigation. This requirement may be requested at an earlier date than listed if the improvements are needed as reasonably determined by the City.		
SCA-TRANS-1: *Construction Activity in the Public Right-of-Way*. a. Obstruction Permit Required The project sponsor shall obtain an obstruction permit from the City prior to placing any temporary construction-related obstruction in the public right-of-way, including City streets and sidewalks. b. Traffic Control Plan Required In the event of obstructions to vehicle or bicycle travel lanes, the project sponsor shall submit a Traffic Control Plan to the City for review and approval prior to obtaining an obstruction permit. The project sponsor shall submit evidence of City approval of the Traffic Control Plan with the application for an obstruction permit. The Traffic Control Plan shall contain a set of comprehensive traffic control measures for auto, transit, bicycle, and pedestrian detours, including detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes. The project sponsor shall implement the	Prior to approval of construction-related permit Prior to approval of construction-related permit Prior to building permit final	Bureau of Building Public Works Department, Transportation Services Division N/A	Bureau of Building Bureau of Building Bureau of Building

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	When Required	Initial Approval	Monitoring/ Inspection
approved Plan during construction. c. Repair of City Streets The project sponsor shall repair any damage to the public right-of way, including streets and sidewalks caused by project construction at his/her expense within one week of the occurrence of the damage (or excessive wear), unless further damage/excessive wear may continue; in such case, repair shall occur prior to approval of the final inspection of the construction-related permit. All damage that is a threat to public health or safety shall be repaired immediately.			
SCA-TRANS-2: *Bicycle Parking.* The project sponsor shall comply with the City of Oakland Bicycle Parking Requirements (chapter 17.118 of the Oakland Planning Code). The project drawings submitted for construction-related permits shall demonstrate compliance with the requirements.	Prior to approval of construction-related permit	Bureau of Planning	Bureau of Building
SCA-TRANS-3: *Transportation Improvements.* The project sponsor shall implement the recommended on- and off-site transportation-related improvements contained within the Transportation Impact Study for the project (e.g., signal timing adjustments, restriping, signalization, traffic control devices, roadway reconfigurations, and pedestrian and bicyclist amenities). The project sponsor is responsible for funding and installing the improvements, and shall obtain all necessary permits and approvals from the City and/or other applicable regulatory agencies such as, but not limited to, Caltrans (for improvements related to Caltrans facilities) and the California Public Utilities Commission (for improvements related to railroad crossings), prior to installing the improvements. To implement this measure for intersection modifications, the project sponsor shall submit Plans, Specifications, and Estimates (PS&E) to the City for review and approval. All elements shall be designed to applicable City standards in effect at the time of construction and all new or upgraded signals shall include these enhancements as required by the City. All other facilities supporting vehicle travel and alternative modes through the intersection shall be brought up to both City standards and ADA standards (according to Federal and State Access Board guidelines) at the time of construction. Current City Standards call for, among other items, the elements listed below: a. 2070L Type Controller with cabinet accessory b. GPS communication (clock) c. Accessible pedestrian crosswalks according to Federal and State Access Board guidelines with signals (audible and tactile)	Prior to building permit final or as otherwise specified	Bureau of Building; Public Works Department, Transportation Services Division	Bureau of Building

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d. Countdown pedestrian head module switch out e. City Standard ADA wheelchair ramps f. Video detection on existing (or new, if required) g. Mast arm poles, full activation (where applicable) h. Polara Push buttons (full activation) i. Bicycle detection (full activation) j. Pull boxes k. Signal interconnect and communication with trenching (where applicable), or through existing conduit (where applicable), 600 feet maximum l. Conduit replacement contingency m. Fiber switch n. PTZ camera (where applicable) o. Transit Signal Priority (TSP) equipment consistent with other signals along corridor p. Signal timing plans for the signals in the coordination group			
SCA-TRANS-4: *Transportation and Parking Demand Management.* a. Transportation and Parking Demand Management (TDM) Plan Required The project sponsor shall submit a Transportation and Parking Demand Management (TDM) Plan for review and approval by the City. i. The goals of the TDM Plan shall be the following: • 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. • Achieve the following project vehicle trip reductions (VTR): o projects generating 50-99 net new AM or PM peak hour vehicle trips: 10 percent VTR o projects generating 100 or more net new AM or PM peak hour vehicle trips: 20 percent VTR • Increase pedestrian, bicycle, transit, and carpool/vanpool modes of travel. All four modes of travel shall be considered, as appropriate. • Enhance the City's transportation system, consistent with City policies and programs. ii. TDM strategies to consider include, but are not limited to, the following: • 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	Prior to approval of construction-related permit Prior to building permit final Ongoing	Bureau of Planning Bureau of Building Bureau of Planning	N/A Bureau of Building Bureau of Planning

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
Planning Code), and shower and locker facilities in commercial developments that exceed the requirement. • Construction of and/or access to bikeways per the Bicycle Master Plan; construction of priority bikeways, on-site signage and bike lane striping. • 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. • Installation of amenities such as lighting, street trees, and trash receptacles per the Pedestrian Master Plan and any applicable streetscape plan. • Construction and development of transit stops/shelters, pedestrian access, way finding signage, and lighting around transit stops per transit agency plans or negotiated improvements. • 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). • Provision of a transit subsidy to employees or residents, determined by the project sponsor and subject to review by the City, if employees or residents use transit or commute by other alternative modes. • 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). • Guaranteed ride home program for employees, either through 511.org or through separate program. • Pre-tax commuter benefits (commuter checks) for employees. • Free designated parking spaces for on-site car-sharing program (such as City Car Share, Zip Car, etc.) and/or car-share membership			

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
for employees or tenants. • On-site carpooling and/or vanpool program that includes preferential (discounted or free) parking for carpools and vanpools. • Distribution of information concerning alternative transportation options. • 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. • Parking management strategies including attendant/valet parking and shared parking spaces. • Requiring tenants to provide opportunities and the ability to work off-site. • 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). • 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. 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. b. TDM Implementation—Physical Improvements For VTR strategies involving physical improvements, the project sponsor shall obtain the necessary permits/approvals from the City and install the improvements prior to the completion of the project. c. TDM Implementation—Operational Strategies For projects that generate 100 or more net new AM or PM peak hour vehicle trips and contain ongoing operational VTR strategies, the project sponsor			

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
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 sponsor, review the annual report. If timely reports are not submitted and/or the annual reports indicate that the project sponsor 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.			
Utilities and Service Systems			
SCA-UTIL-1: *Sanitary Sewer System.* The project sponsor 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 sponsor shall pay the Sanitary Sewer Impact Fee in accordance with the City's Master Fee Schedule for funding improvements to the sanitary sewer system.	Prior to approval of construction-related permit	Public Works Department, Department of Engineering and Construction	N/A
SCA-UTIL-2: *Storm Drain System.* 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
SCA-UTIL-3*: Construction and Demolition Waste Reduction and Recycling.* The project sponsor 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	Prior to approval of construction-related permit	Public Works Department, Environmental Services Division	Public Works Department, Environmental Services Division

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
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 www.greenhalosystems.com 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.			
SCA-UTIL-4: *Recycling Collection and Storage Space.* The project sponsor 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
SCA-UTIL-5: *Underground Utilities.* The project sponsor shall place underground all new utilities serving the project and under the control of the project sponsor 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
SCA-UTIL-6: *Green Building Requirements.* *a. Compliance with Green Building Requirements During Plan-Check* The project sponsor 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	Prior to approval of construction-related permit During construction After project completion as specified	Bureau of Building N/A Bureau of Planning	N/A Bureau of Building Bureau of Building

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
the City for review and approval with the application for a building permit: • Documentation showing compliance with Title 24 of the current version of the California Building Energy Efficiency Standards. • Completed copy of the final green building checklist approved during the review of the Planning and Zoning permit. • Copy of the Unreasonable Hardship Exemption, if granted, during the review of the Planning and Zoning permit. • Permit plans that show, in general notes, detailed design drawings, and specifications as necessary, compliance with the items listed in subsection (ii) below. • 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. • 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. • Other documentation as deemed necessary by the City to demonstrate compliance with the Green Building Ordinance. ii. The set of plans in subsection (i) shall demonstrate compliance with the following: • CALGreen mandatory measures. • 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. • Minimum of 23 points per the appropriate checklist approved during the Planning entitlement process. • 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			

Standard Conditions of Approval/Mitigation Measures	Mitigation Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection
of Planning that shows the previously approved points that will be eliminated or substituted. • The required green building point minimums in the appropriate credit categories. *b. Compliance with Green Building Requirements During Construction* The project sponsor shall comply with the applicable requirements of CALGreen and the Oakland Green Building Ordinance during construction of the project. The following information shall be submitted to the City for review and approval: i. 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. ii. 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. iii. Other documentation as deemed necessary by the City to demonstrate compliance with the Green Building Ordinance. *c. Compliance with Green Building Requirements After Construction* Within sixty (60) days of the final inspection of the building permit for the project, the Green Building Certifier shall submit the appropriate documentation to Build It Green and attain the minimum required certification/point level. Within one year of the final inspection of the building permit for the project, the project sponsor 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.			

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Attachment B: Project Consistency with Community Plans 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: Located in the Broadway Valdez District Specific Plan (BVDSP) Area, the proposed project would involve demolition of an existing surface parking lot and construction of 130 residential units and approximately 3,000 square feet of retail space. Upon completion, the project would provide approximately 239,000 gross square feet of residential and retail space, with 24 stories and approximately 240 feet in height as measured to the roof.

Project Consistency: The General Plan land use designation applicable to the proposed project site is Central Business District (CD) and the site is zoned D-BV-2 Broadway Valdez District Retail Commercial Zone 2 (D-BV-2), incorporated into the Oakland Planning Code with adoption of the Broadway Valdez District Specific Plan (BVDSP) in 2014. Chapter 17.101C of the Oakland Planning Code establishes regulations for development in the D-BV-2, including standards related to land uses, height, Floor Area Ratio (FAR), density and open space. As outlined below, the proposed project is consistent with the City of Oakland General Plan and the applicable development standards from the BVDSP and Oakland Planning Code.

Oakland General Plan: The General Plan land use designation applicable to the proposed project site is Central Business District. This designation 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 involve construction of 130 residential units and approximately 3,000 square feet of ground floor retail space on the site of an existing surface parking lot in the Central Business District of Oakland. As such, the project would enhance the high-density mixed-use urban character of the Central Business District and be consistent with the applicable land use designation.

Intent: Chapter 17.101C.010 of the Oakland Planning Code is intended to implement the Broadway Valdez District Specific Plan. The proposed project site is located in the Valdez Triangle subarea, where regulations are intended to:

- Create a recognized Oakland destination that provides a mix of uses that contributes to around-the-clock activity with people present both day and night, and on weekdays and weekends.
- Create a destination retail district that addresses the City's need for comparison goods shopping complemented with local-serving retail, dining, entertainment, office, and service uses.
- Encourage, support, and enhance a mix of small, medium, and large-scale retail, commercial, dining, entertainment, arts, cultural, office, residential, service, public plaza, and visitor uses.
- Encourage and enhance a pedestrian-oriented streetscape with street-fronting retail and complementary dining and entertainment uses.
- Establish a pedestrian, bicycle, and transit-oriented district that accommodates vehicular access.

The proposed project would involve construction of 130 residential units and approximately 3,000 square feet of ground floor retail space in the BVDSP Area. The residential component of the proposed project would bring up to 243 new residents and potential patrons of shops and restaurants to the area, thereby contributing to the around-the-clock vitality that the BVDSP seeks to create. Further, with 3,000 square feet of ground floor retail space, the proposed project would also contribute to the creation of a retail district, enhance the mix of uses in the BVDSP Area and provide pedestrian-oriented streetscape with street-fronting retail uses. Additionally, incorporation of recommended improvements from the CEQA Checklist such as the installation of short-term and long-term bicycle parking facilities would encourage the use of pedestrian and bicycle use in the BVDSP Area. Therefore, the proposed project is consistent with the intent of Chapter 17.101C.010 of the Oakland Planning Code, which implements the Broadway Valdez District Specific Plan.

Permitted uses: Based on Table 17.101C.01: Permitted and Conditionally Permitted Facilities in the Oakland Planning Code, permanent residential uses are a permitted activity in the D-BV-2 zone, as are general retail sales. Therefore, the mix of uses in the proposed project is consistent with the permitted activities established for the D-BV-2 zone.

Height: As shown on Figure B.4 Proposed Height Areas of the BVDSP, the proposed project site is located in a 250-foot Height Area. Table 17.101C.04 in the Oakland Planning Code prescribes both minimum and maximum height standards applicable to the proposed project, including a minimum of 3 stories, a maximum of 24 stories, a total maximum building height of 250 feet and a maximum building base height of 85 feet. With a proposed height of 24 stories and approximately 240 feet as measured to the roof, the proposed building would be consistent with these requirements. Further, as shown in Exhibit 7, the building base height would not exceed 65 feet.

Floor Area Ratio (FAR): Table 17.101C.04 in the Oakland Planning Code prescribes maximum non-residential Floor Area Ratios (FARs). For development in the 250-foot Height Area, where the proposed project would be located, the maximum non-residential FAR is 10. With a lot size of approximately 13,070 square feet and approximately 3,000 proposed square feet of retail, the project would have an FAR of 0.23, far below the established maximum FAR. Therefore, the proposed project would be consistent with applicable regulations from the BVDSP and Oakland Planning Code.

Density: Table 17.101C.04 in the Oakland Planning Code prescribes maximum residential density for development in the 250-foot Height Area, where the proposed project would be located. With a lot size of approximately 13,070 square feet, up to 145 units would be allowed on the site. The project proposes 130 units and is therefore consistent with applicable regulations from the BVDSP and Oakland Planning Code.

Open Space: Table 17.101C.04 in the Oakland Planning Code prescribes Open Space standards for the various Height Areas. The proposed project is located in a 250-foot maximum height area and as such is required to provide a minimum of 75 square feet of group usable open space per regular unit. With 130 units proposed, the project would therefore be required to provide 9,750 square feet of usable open space. In fact, the proposed project would provide a total of approximately 10,665 square feet of open space for the building residents. This total includes 7,220 square feet of private useable balcony open space (or more than 55 square feet per unit) as well as 2,356 square feet of common usable open space on the 7th floor of the building, in the form of a courtyard (outdoor terrace), lounge, and gym. Therefore, the proposed project would be consistent with applicable open space standards from the BVDSP and Oakland Planning Code.

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Attachment C: Infill Performance Standards, Per CEQA Guidelines Section 15183.3

California Environmental Quality Act (CEQA) Guidelines Section 15183.3(b) and CEQA Guidelines Appendix M establish eligibility requirements for projects to qualify as infill projects. Table C-1, on the pages following, shows how the proposed project satisfies each of the applicable requirements.

Table C-1
project Infill Eligibility

CEQA Eligibility Criteria		Eligible?/Notes for Proposed project
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 project site has been previously developed with 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:	—
	2a. *Performance Standards Related to project Design.* All projects must implement **all** of the following:	—
	Renewable Energy. *Non-Residential projects.* 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. *Residential projects.* 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.
	Soil and Water Remediation. 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.	Yes As stated in Section 7, Hazards and Hazardous Materials, of the CEQA Checklist, a review of available environmental databases was conducted for the proposed project. The project would not be constructed on a hazardous waste site. Five Underground Storage Tank (UST) sites were located within the Broadway-Valdez Triangle: Chevron, Sisters of Providence Hospital, Labor Temple Parking Lot, Oakland Tribune, and Tribune Reuse Site. The Chevron, Labor Temple

Table C-1 project Infill Eligibility		
CEQA Eligibility Criteria		**Eligible?/Notes for Proposed project**
		Parking Lot, and Oakland Tribune sites have been remediated and achieved regulatory closure, while the Sisters of Providence Hospital and Tribune Reuse Sites are currently under remediation. The proposed project would not be affected by the two remaining UST sites.
	Residential Units Near High-Volume Roadways and Stationary Sources. 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.	Yes As discussed in Attachment G-2, three major roadways with an AADT volume greater than 10,000 vehicles per day were identified within 1,000 feet of the Maximally Impacted Receptor (MIR). The health risk screening values at the MIR from nearby major roadways were estimated using the BAAQMD's Roadway Screening Analysis Calculator. As described therein, no "high-volume roadways" with 100,000 vehicles per day, as defined by Section II of CEQA Appendix M, are located within 1,000 feet of the proposed project. As summarized in the air quality screening prepared for the proposed project, the project's construction and operational emissions would not exceed the City of Oakland's project-level health risk thresholds of significance after application of standard conditions of acceptance and mitigation measures. Additionally, the project's construction and operational emissions after application of mitigation in combination with TAC emissions from existing and future sources of TAC emissions within 1,000 feet of the project would not expose nearby sensitive receptors to cancer risks or hazard levels that exceed the City of Oakland's cumulative health risk thresholds of significance.
	2b. *Additional Performance Standards by project Type.* In addition to implementing all the features described in criterion 2a above, the project must meet eligibility requirements provided below by project type.[a]	

Table C-1
project Infill Eligibility

CEQA Eligibility Criteria		Eligible?/Notes for Proposed project
	Residential. A residential project must meet **one** of the following: A. *projects achieving below average regional per capita vehicle miles traveled.* A residential project is eligible if it is located in a "low vehicle travel area" within the region; B. *projects located within ½ mile of an Existing Major Transit Stop or High Quality Transit Corridor.* 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; **or** C. *Low-Income Housing.* 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.	Yes The proposed project is eligible under Section (B). The project site is well-served by multiple transit providers, including numerous Alameda-Contra Costa County Transit District (AC Transit) routes and transit service provided by the Bay Area Rapid Transit (BART). The project site is approximately 0.3 mile north of the 19th Street Oakland BART station. With fixed route bus service at intervals no longer than 15 minutes during peak commute hours, Broadway in downtown Oakland qualifies as a "High Quality Transit Corridor," as defined Appendix M of the CEQA Guidelines. The AC Transit Line 51A runs along Broadway near the project site, and has service intervals no longer than 15 minutes during peak commute hours. Other bus routes in the project vicinity further satisfy this criterion.
	Commercial/Retail. A commercial/retail project must meet **one** of the following: A. *Regional Location.* 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"; **or** B. *Proximity to Households.* A project with no single-building floor-plate greater than 50,000 square feet located within ½ mile of 1,800 households is eligible.	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 requirements for commercial/retail projects do not apply.
	Office Building. An office building project must meet **one** of the following: A. *Regional Location.* Office buildings, both commercial and public, are eligible if they locate in a low vehicle travel area; **or** B. *Proximity to a Major Transit Stop.* 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.	Not Applicable The proposed project would not include any office space.
	Schools. Elementary schools within 1 mile of	Not Applicable The proposed project would not include any

Table C-1
project Infill Eligibility

CEQA Eligibility Criteria		Eligible?/Notes for Proposed project
	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. Additionally, to be eligible, all schools shall 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.	schools or related facilities.
	Transit. Transit stations, as defined in Section 15183.3(e)(1), are eligible.	Not Applicable The proposed project would not include any transit stations.
	Small Walkable Community projects. 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 The proposed project is not considered a small walkable community project.
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, **except** 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; **or** (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 §15183.3(f)(5). (CEQA Guidelines Section 15183.3[b][3])	Yes (see explanation below table)

[a] Where a project includes some combination of residential, commercial and retail, office building, transit station, and/or schools, the performance standards in this section that apply to the predominant use shall govern the entire project.

Explanation for Eligibility Criteria 3—Plan Bay Area, adopted by the Metropolitan Transportation Commission and Association of Bay Area Governments in 2013, serves as the Sustainable Communities Strategy (SCS) for the San Francisco Bay Area, per Senate Bill 375. Plan Bay Area defines Priority Development Areas (PDAs) well-served by transit where new development can best support the needs of residents and workers in a pedestrian-friendly environment. The Broadway Valdez District, defined in the Broadway Valdez District Specific Plan (BVDSP), is a PDA. The proposed project is consistent with the standards related to use designation, density and building intensity, as well as other policies applicable to the proposed project area established in the BVDSP and implemented through Chapter 17.101C.010 of the Oakland Planning Code.

Chapter 17.101C.010 of the Oakland Planning Code is intended to implement the BVDSP. The proposed project site is located in the Valdez Triangle subarea of the BVDSP, where regulations are intended to:

a) Create a recognized Oakland destination that provides a mix of uses that contributes to around-the-clock activity with people present both day and night, and on weekdays and weekends.
b) Create a destination retail district that addresses the City's need for comparison goods shopping complemented with local-serving retail, dining, entertainment, office, and service uses.
c) Encourage, support, and enhance a mix of small, medium, and large-scale retail, commercial, dining, entertainment, arts, cultural, office, residential, service, public plaza, and visitor uses.
d) Encourage and enhance a pedestrian-oriented streetscape with street-fronting retail and complementary dining and entertainment uses.
e) Establish a pedestrian, bicycle, and transit-oriented district that accommodates vehicular access.

The proposed project would involve construction of 130 residential units and approximately 3,000 square feet of ground floor retail space in the BVDSP Area. The residential component of the proposed project would bring up to 243 new residents and potential patrons of shops and restaurants to the area, thereby contributing to the around-the-clock vitality that the BVDSP seeks to create. Further, with 3,000 square feet of ground floor retail space, the proposed project would also contribute to the creation of a retail district, enhance the mix of uses in the BVDSP Area and provide pedestrian-oriented streetscape with street-fronting retail uses. Additionally, incorporation of recommended improvements from the CEQA Checklist such as the installation of short-term and long-term bicycle parking facilities would encourage the use of pedestrian and bicycle use in the BVDSP Area. Therefore, the proposed project is consistent with the intent of Chapter 17.101C.010 of the Oakland Planning Code, which implements the Broadway Valdez District Specific Plan. Further, Table 17.101C.01 in the Oakland Planning Code establishes Permitted and Conditionally Permitted uses in the Broadway Valdez District, including the D-BV-2 zone. Based on the uses defined in Table 17.101C.01, permanent residential uses are a permitted activity in the D-BV-2 zone, as are general retail sales. Therefore, the mix of uses in the proposed project is consistent with the permitted activities established for the D-BV-2 zone.

The proposed project would also be consistent with the standards established for density and building intensity in the BVDSP and implemented through the Oakland Planning Code. Table 17.101C.04 in the Oakland Planning Code prescribes a maximum non-residential Floor Area Ratio (FAR)[1] of 10 for development in the 250-foot Height Area, where the proposed project would be located. With a lot size of approximately 13,070 square feet and approximately 3,000 proposed square feet of retail, the project would have an FAR of 0.23, far below the established maximum FAR. Additionally, Table 17.101C.04 prescribes maximum residential density for development in the 250-foot Height Area. With a lot size of approximately 13,070 square feet, up to 145 units would be allowed on the site. The project proposes 130 units and is therefore consistent with applicable regulations from the BVDSP and Oakland Planning Code.

[1] Floor Area Ratio (FAR) is the relationship between the total amount of usable floor area permitted for a building and the total area of the lot on which the building stands. A higher ratio is more likely to indicate a dense or urban construction.

Attachment D: Criteria for Use of Addendum, per CEQA Guidelines Sections 15164 and 15162

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."

Project Modifications. The Broadway Valdez District Specific Plan (BVDSP) EIR analyzed the Broadway Valdez Development Program (Development Program), which represents the maximum feasible development that the City of Oakland has projected can reasonably be expected to occur in the BVDSP area (Plan Area) over a 25-year planning period.[1]

The EIR indicates that the CEQA analysis was based on the maximum development quantities set forth in the Development Program. The intent of the BVDSP is to provide as much flexibility as is feasible in terms of precise mix of newly developed land uses and their location in the Plan Area, while conforming to the CEQA analysis and thresholds established in the EIR. Traffic capacity was identified in the BVDSP EIR as the key environmental factor constraining development. The City of Oakland is tracking and measuring vehicle trip generation created by projects proposed under the BVDSP, not land uses, to monitor when thresholds established have been met. Thus, it is traffic capacity that caps development under the BVDSP, not uses, which were contemplated to evolve and, as long as impacts fall within the maximum development analyzed in the BVDSP EIR, additional CEQA analysis is unnecessary.

As described in Section 13, Transportation and Circulation, of this CEQA Checklist, together with trips generated by other projects that are currently under construction, approved, or proposed for development in the Plan Area, the proposed project would represent approximately 48 percent of the AM and 48 percent of the PM peak-hour trips anticipated in the BVDSP EIR, 82 percent of the AM and 68 percent of the PM peak-hour trips anticipated in the BVDSP EIR for the Valdez Triangle subarea, and 95 percent of the

[1] In total, the Broadway Valdez Development Program includes approximately 3.7 million square feet of development, including approximately 695,000 square feet of office space, 1,114,000 square feet of restaurant/retail space, 1,800 residential units, a new 180-room hotel, approximately 6,500 parking spaces provided by the development program, and approximately 4,500 new jobs.

AM and 80 percent of the PM peak-hour trips anticipated in the BVDSP EIR for Subdistrict 1. The traffic impact analysis presented in the EIR continues to remain valid, and the trip generation from the proposed project combined with other projects currently being developed under the BVDSP would be within the program analyzed under the BVDSP EIR for the Plan Area, the Valdez Triangle, and Subdistrict 1.

Therefore, the proposed project would represent a minor change in the Development Program, and such changes are anticipated in the EIR.

Conditions for Addendum. None of the following conditions for preparation of a subsequent EIR per Section 15162(a) 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

(D) 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 Section 15162 of the CEQA Guidelines. Since certification of the Final EIR, no changes have occurred in the circumstances under which the revised project would be implemented, that would change the severity of the proposed project's physical impacts as explained in the CEQA Checklist above, and no new information has emerged that would materially change the analyses or conclusions set forth in the Final EIR.

Furthermore, as demonstrated in the CEQA Checklist, the proposed modifications to the Development Program 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 EIR, 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 for the Development Program in the EIR.

The analysis presented in this CEQA Checklist, combined with the prior EIR 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 the proposed project contribute considerably to cumulative effects that were not already accounted for in the certified EIR. Overall, the proposed project's impacts are similar to those identified and discussed in the EIR, as described in the CEQA Checklist, and the findings reached in the EIR are applicable.

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Attachment E: Shadow Study for the 2305 Webster Street Mixed Use Residential Project

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PREVISION DESIGN

FEBRUARY 7, 2017
AD2

SHADOW ANALYSIS REPORT FOR THE PROPOSED 2305 WEBSTER STREET PROJECT PER OAKLAND PLANNING & CEQA STANDARDS



FROM:
ADAM PHILLIPS
PRINCIPAL
PREVISION DESIGN

TO:
MARY BEAN, FIRST CARBON SOLUTIONS
1350 TREAT BOULEVARD, SUITE 380
WALNUT CREEK, CA 94597

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I. INTRODUCTION AND OVERVIEW

This report describes the results of an analysis conducted by PreVision Design to identify the shading that would be caused by the proposed construction of a 23-story residential project at 2305 Webster Street ("the proposed project") on area solar collectors, public parks and open spaces and historic resources.

The analysis was conducted according to criteria described in the City of Oakland CEQA Thresholds of Significance Guidelines, dated October 28, 2013.

This report includes a discussion of the proposed project's net new shading, including graphical detail of the location and extent of the project's shading at 9am, 12 noon, and 3pm on the Summer Solstice, Spring/Fall Equinoxes, and Winter Solstice. Cumulative condition shading (by other proposed projects in the vicinity), includes shading from 2100 Telegraph Avenue, 2270 Broadway, 2302 Valdez Street, 2400 Valdez Street, and the 24th & Harrison project. Shadow profiles from these projects are indicated as hatched on the graphics provided as Exhibits A, B, and C.

This report does not present opinions nor conclusions about whether or not the shadow from the proposed project would or should be considered significant/insignificant or acceptable/unacceptable by Oakland or CEQA standards. Such determinations shall be made by the reviewing agencies with input from the prime environmental consultant, First Carbon Solutions. ■



FIGURE 1: Project Rendering

II. PROPOSED PROJECT

The proposed project would be located at 2305 Webster Street on Assessor's Parcel Number 8-667-5-3. The project site is currently a surface parking lot. The proposed project would be an 23-story, 240' tall (+3'-8" parapet) residential building with ground-floor retail. Figure 2 shows a rendering of the proposed project. ■

III. CEQA EVALUATION CRITERIA

CEQA requires the analysis of potential adverse effects of the project on the environment. Relating to the generation of new shadow by the Project, there are three types of receptors that are identified by the *City of Oakland CEQA Thresholds*

of Significance Guidelines, and Project shading could be considered significant if the Project were to:

- Cast shadow that substantially impairs the function of a building using passive solar heat collection, solar collectors for hot water heating, or photo-voltaic solar collectors;

- Cast shadow that substantially impairs the beneficial use of any public or quasi-public park, lawn, garden, or open space;

- Cast shadow on an historic resource, as defined by CEQA Guidelines section 15064.5(a),6 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 inclusion on or eligibility for listing in the National Register of Historic Places, California Register of Historical Resources, Local Register of historical resources, or a historical resource survey form (DPR Form 523) with a rating of 1-5; Historic Resources: Leamington Hotel (1800-26 Franklin Street/365-89 19th Street), Palace Apartments (1560 Alice Street), Lake Merritt Hotel (1800 Madison Street).

This analysis has been completed pursuant to the direction of these guidelines. ■

IV. ANALYSIS METHODOLOGY

Shadow Modeling Analysis

The shadow analysis completed by PreVision Design for the 1750 Webster project used a Geo-located[1] 3D computer model of the proposed project[2], the park, and the surrounding urban environment to simulate both existing shading and net new project -generated shading that would be present with the addition of the proposed project. NOTE: Trees or other foliage are subject to change over the seasons and over time and

---

1 Geo-Location refers to entering in the correct latitude and longitude of the project into the 3D model, which ensures that the solar angles used to simulate shading reflect local shading conditions.

2 PreVision Design was provided with a revised 3D project model on February 6, 2017, after completion of the shading analysis. The updated 3D model was reviewed for consistency with the original 3D project model, and as massing changes consisted of minor alterations in exterior articulation only (no change in height nor overall form), the shading cast by the revised project was found to be nearly identical to the prior design. As such, no update of the analysis was deemed to be necessary..

therefore are not included in the 3D model of had their shadow taken into consideration in determining the existing, project, or cumulative shading conditions.

Cumulative Shadow Analysis

This report also considers shadows from other pipeline projects in the vicinity of the proposed project that are under review but have not been constructed, including 2100 Telegraph Avenue, 2270 Broadway, 2302 Valdez Street, 2400 Valdez Street, and the 24th & Harrison project. These projects are included the shading graphics to display the potential the cumulative shadow effects of these projects on the affected receptor sites in the area.

Graphical Study

Per the City of Oakland CEQA guidelines, snapshot shading graphics have been prepared at 9am, 12 noon, and 3pm on the following dates: Summer Solstice (Exhibit A), Spring/Fall Equinoxes (Exhibit B), and Winter Solstice (Exhibit C). The snapshot graphics also include an overlay depiction of the size and location of cumulative project's shadow. ■

V. FEATURES AFFECTED BY PROJECT SHADOW

Solar Collectors

Based on a review of high-resolution aerial photography in the area, the proposed project does not appear to have the potential to shade any passive solar heat collectors, solar collectors for hot water heating, nor photo-voltaic solar collectors between 9am-3pm at any time throughout the year, however some early morning shadows would fall on the rooftop solar collectors of 420 West Grand prior to 8:30am throughout the summer months.


200 Grand Avenue / Adams Park

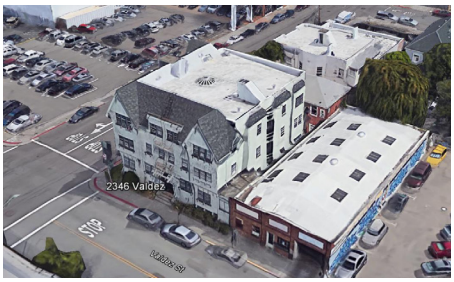
Public Open Spaces

Adams Park surrounds the Veteran's Memorial Building at 200 Grand Avenue, and located to the east and south of the proposed project. The park features grassy areas, several mature trees, paved walkways leading to the Veteran's Memorial Building, as well as bridging across the underground Glen Echo Creek which daylights for about 250' within the park. While the project would cast no new shadow on the park between 9am and 3pm at any time throughout the year, grassy areas would receive a small

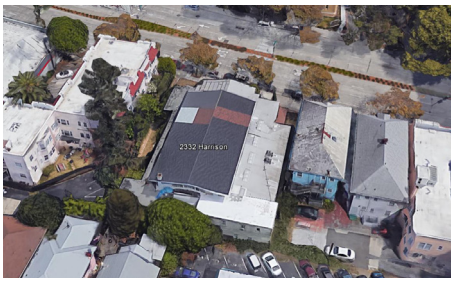
amount of net new shadow in the late afternoon/early evening (after 7:05pm) over from early May through mid-August.



415 24th Street



2346 Valdez Street



2332 Harrison Street

Historic Resources

Project-generated shading on affected local historic resources in the vicinity are discussed below:

1. The rooftop and eastern street facade of 415 24th Street, located north and west of the proposed project, would receive net new morning shadow starting as early as 9:45 am and remaining until as late as 11:45 am over late fall and winter months from mid-October through late February. This property was built in 1913-1914 and is listed on the Local Register of Historic Properties within the 25th Street Garage Local Historic District, with a OCHS Rating of B+a1+.

2. The rooftop western and southern street facades of 2346 Valdez Street, located north and east of the proposed project, would receive net new afternoon shadow occurring for approximately 1 hour in the later afternoon (around 3-4pm) in October-November and February-March. This property was built in 1909-1910 and is listed on the Local Register of Historic Properties within the Waverly Street Residential Historic District, with a OCHS Rating of B+2+.

3. The rooftop of 2333 Harrison Street, located due east of the proposed project, would receive net new afternoon shadow occurring late afternoon after approximately 6:15 pm in April-May and again in July-August. This property was built in 1915-1918 and is listed on the Local Register of Historic Properties with a OCHS Rating of A3.

4. A small portion of the western facade of 200 Grand Avenue, located east and south of the proposed project, would receive net new afternoon shadow occurring late afternoon after approximately 7:15 pm from early June through mid-July. This property was built in 1926-1927 and is listed on the Local Register of Historic Properties within the Lake Merritt Local Historic District, with a OCHS Rating of A1+. ■

EXHIBIT A: SHADOW DIAGRAMS ON SUMMER SOLSTICE

June 21

Diagrams at 9am, 12pm and 3pm..

2305 WEBSTER STREET

Shading diagrams on the Summer Solstice

A1

LEGEND

Historic Resource Sites
1. 415 24th Street
2. 2401 Broadway
3. 2346 Valdez Street
4. 2333 Harrison Street
5. First Congregational Church
6. 230 Bay Place
7. 2332 Harrison Street
8. 200 Grand Avenue

Solar Collector Sites
1. 420 West Grand Avenue
2. 426 25th Street
3. Westlake Middle School

Cumulative Projects
1. 2100 Telegraph Avenue
2. 2270 Broadway
3. 2302 Valdez Street
4. 2400 Valdez Street
5. 24th & Harrison

Parks and Open Spaces
1. Adams Park

Proposed Project
Existing (current) Shadows
New Shading by Proposed Project
New Shading from Cumulative Projects



N

SUMMER SOLSTICE
JUNE 21

9:00 AM

2305 WEBSTER STREET

Shading diagrams on the Summer Solstice

A2

LEGEND

Historic Resource Sites
1. 415 24th Street
2. 2401 Broadway
3. 2346 Valdez Street
4. 2333 Harrison Street
5. First Congregational Church
6. 230 Bay Place
7. 2332 Harrison Street
8. 200 Grand Avenue

Solar Collector Sites
1. 420 West Grand Avenue
2. 426 25th Street
3. Westlake Middle School

Cumulative Projects
1. 2100 Telegraph Avenue
2. 2270 Broadway
3. 2302 Valdez Street
4. 2400 Valdez Street
5. 24th & Harrison

Parks and Open Spaces
1. Adams Park

Proposed Project

Existing (current) Shadows

New Shading by Proposed Project

New Shading from Cumulative Projects



N

SUMMER SOLSTICE
JUNE 21

12:00 PM

2305 WEBSTER STREET

Shading diagrams on the Summer Solstice

A3

LEGEND

Historic Resource Sites
1. 415 24th Street
2. 2401 Broadway
3. 2346 Valdez Street
4. 2333 Harrison Street
5. First Congregational Church
6. 230 Bay Place
7. 2332 Harrison Street
8. 200 Grand Avenue

Solar Collector Sites
1. 420 West Grand Avenue
2. 426 25th Street
3. Westlake Middle School

Cumulative Projects
1. 2100 Telegraph Avenue
2. 2270 Broadway
3. 2302 Valdez Street
4. 2400 Valdez Street
5. 24th & Harrison

Parks and Open Spaces
1. Adams Park

Proposed Project
Existing (current) Shadows
New Shading by Proposed Project
New Shading from Cumulative Projects



N

SUMMER SOLSTICE
JUNE 21

3:00 PM

EXHIBIT B: SHADOW DIAGRAMS ON EQUINOXES

September 22 (Autumnal), March 20 (Vernal) similar

Diagrams at 9am, 12pm and 3pm.

2305 WEBSTER STREET

Shading diagrams on the Vernal/Autumnal Equinoxes

B1



N

VERNAL/AUTUMNAL EQUINOX
MARCH 20 & SEPTEMBER 22

9:00 AM

2305 WEBSTER STREET

Shading diagrams on the Vernal/Autumnal Equinoxes

B2



VERNAL/AUTUMNAL EQUINOX
MARCH 20 & SEPTEMBER 22

12:00 PM

2305 WEBSTER STREET

Shading diagrams on the Vernal/Autumnal Equinoxes

B3

LEGEND

Historic Resource Sites
1. 415 24th Street
2. 2401 Broadway
3. 2346 Valdez Street
4. 2333 Harrison Street
5. First Congregational Church
6. 230 Bay Place
7. 2332 Harrison Street
8. 200 Grand Avenue

Solar Collector Sites
1. 420 West Grand Avenue
2. 426 25th Street
3. Westlake Middle School

Cumulative Projects
1. 2100 Telegraph Avenue
2. 2270 Broadway
3. 2302 Valdez Street
4. 2400 Valdez Street
5. 24th & Harrison

Parks and Open Spaces
1. Adams Park

Proposed Project

Existing (current) Shadows

New Shading by Proposed Project

New Shading from Cumulative Projects



N

VERNAL/AUTUMNAL EQUINOX
MARCH 20 & SEPTEMBER 22

3:00 PM

EXHIBIT C: SHADOW DIAGRAMS ON WINTER SOLSTICE

December 21

Diagrams at 9am, 12pm and 3pm.

2305 WEBSTER STREET

Shading diagrams on the Winter Solstice

C1

LEGEND

Historic Resource Sites
1. 415 24th Street
2. 2401 Broadway
3. 2346 Valdez Street
4. 2333 Harrison Street
5. First Congregational Church
6. 230 Bay Place
7. 2332 Harrison Street
8. 200 Grand Avenue

Solar Collector Sites
1. 420 West Grand Avenue
2. 426 25th Street
3. Westlake Middle School

Cumulative Projects
1. 2100 Telegraph Avenue
2. 2270 Broadway
3. 2302 Valdez Street
4. 2400 Valdez Street
5. 24th & Harrison

Parks and Open Spaces
1. Adams Park

Proposed Project

Existing (current) Shadows

New Shading by Proposed Project

New Shading from Cumulative Projects

25TH STREET
24TH STREET
23RD STREET
22ND STREET
WEST GRAND AVENUE
GRAND AVENUE
VALLEY STREET
BROADWAY
WEBSTER STREET
VALDEZ STREET
WAVERLY STREET
27TH STREET
HARRISON STREET
BAY PL

N

WINTER SOLSTICE
DECEMBER 21

9:00 AM

2305 WEBSTER STREET

Shading diagrams on the Winter Solstice



WINTER SOLSTICE
DECEMBER 21

12:00 PM

2305 WEBSTER STREET

Shading diagrams on the Winter Solstice

C3



WINTER SOLSTICE
DECEMBER 21

3:00 PM

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Attachment F: Wind Tunnel Study for the 2305 Wester Street Mixed Use Residential Project

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Report

Pedestrian Wind Consultation

RWDI # 1603856
October 31, 2016

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Figure 3a: Pedestrian Wind Comfort Conditions – Existing
Figure 3b: Pedestrian Wind Comfort Conditions – Existing + Project
Figure 3c: Pedestrian Wind Comfort Conditions – Project + Cumulative

Tables

Table 1: Wind Hazard Results
Table 2: Wind Comfort Results

Appendices

Appendix A: Drawing List for Model Construction

1. INTRODUCTION

Rowan Williams Davies & Irwin Inc. (RWDI) was retained by First Carbon Solutions to consult on the pedestrian wind conditions for the proposed 2305 Webster in Oakland, CA. The proposed building is located in the downtown core of the city of Oakland and is 240 feet tall, consisting of a 23-storey tower, four of which are parking levels. The purpose of the study was to assess the wind environment around the development in terms of the wind metrics specified in the City of Oakland Significant Wind Impact Criterion. The study objective was achieved through the wind tunnel testing of a 1:400 (1" = 33') scale model of the proposed development for the following configurations:

Configuration A - Existing:	existing site with all existing surrounding buildings;
Configuration B – Existing + Project:	proposed 2305 Webster, with existing and approved surrounding buildings; and,
Configuration C – Project + Cumulative:	proposed 2305 Webster, with existing, approved and anticipated future surrounding buildings.

The photographs in Figures 1a through 1c show the test model in RWDI's boundary-layer wind tunnel. 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 criteria, and presents the test results.

The placement of wind measurement locations was based on our experience and understanding of the pedestrian usage for this site, and reviewed by First Carbon Solutions.

2. PRINCIPAL RESULTS

The results of the study are discussed in detail in Section 5 of this report and are summarized as follows:

- Wind speeds at all locations studied meet the hazard criterion in the Existing configuration, and are continue to meet the criterion in the Existing plus Project and Project plus Cumulative configurations.

- Winds at the majority of the wind speeds tested along 23rd Street and Webster Street are expected to exceed the wind comfort criterion in the Existing configuration, while the wind conditions along Broadway as well as north of the project site will remain suitable for pedestrian comfort annually.

- With the addition of the proposed development, the conditions along 23rd Street and Webster Street at locations close to the project will improve slightly, with little to change to wind speeds on other streets.

- With the addition of future developments around the project site in the Project plus Cumulative configuration, compared to the Existing configuration, wind speeds around the project perimeter on Webster Street to the east on 23rd Street are expected to decrease, while wind speeds are predicted to increase in isolated areas locally around the future buildings, in the parking lot to the north and northeast of the project and on Broadway Street..

3. METHODOLOGY

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 1600 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 38 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 northwest through west-southwest 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 33feet) 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 (240 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 Significant Wind Impacts 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.

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 for the three configurations tested, and lists the predicted wind speed predicted to be exceeded one hour per year for each measurement point. 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 an exceedance of the wind hazard.

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 (90th 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 38 grade level locations tested for the three tested configurations, wind speeds at none currently exceed the hazard criterion in the Existing configuration. Wind speeds are not predicted to exceed the hazard criterion at any location in the Existing plus Project and Project plus Cumulative as well. Considering all locations, wind speeds are predicted to average at 27 mph for all configurations (presented in Table 1).

4.2 Wind Comfort Conditions

In the Existing configuration, the wind speeds in the vicinity of the project site are predicted to exceed 11 mph along the majority of Webster Street and 23rd Street. Farther north of the project site, in the parking lot to the west of Webster Street and along Broadway Street, wind speeds are expected to meet the 11 mph criterion (Figure 3a and Table 2). The average wind speeds for all locations is predicted to be 12 mph, which is marginally higher than the threshold speed of 11 mph.

In the Existing plus Project configuration, with the addition of the project development, improvements are expected in the wind speeds at several locations along 23rd Street and Webster Street as they are reduced from exceeding the comfort criterion to having an average speed ranging between 8-11 mph. (Figure 3b and Table 2). The project is not expected to significantly change the wind comfort conditions farther away from it. Wind speeds are expected to average at 11 mph, which is lower than the 12 mph expected in the Existing configuration.

Anticipated wind 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 close to the project on Webster Street, and to the east on 23rd Street are expected to decrease (Table 2). Additionally, wind speeds are expected to increase on 23rd Street close to the future buildings, along Broadway, as well as to the north and northeast of the project site around the parking lot (see Figure 3c and Table 2). Generally, wind conditions are predicted to be similar to those in the Existing plus Project configuration, with wind speeds averaging at 11 mph, compared to 12 mph in the Existing configuration.

5. APPLICABILITY OF RESULTS

The wind conditions presented in this report pertain to the proposed 2305 Webster 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

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.

4) Soligo, M.J., Irwin, P.A., and Williams, C.J. (1993). "Pedestrian Comfort Including Wind and Thermal Effects," *Third Asia-Pacific Symposium on Wind Engineering*, Hong Kong.

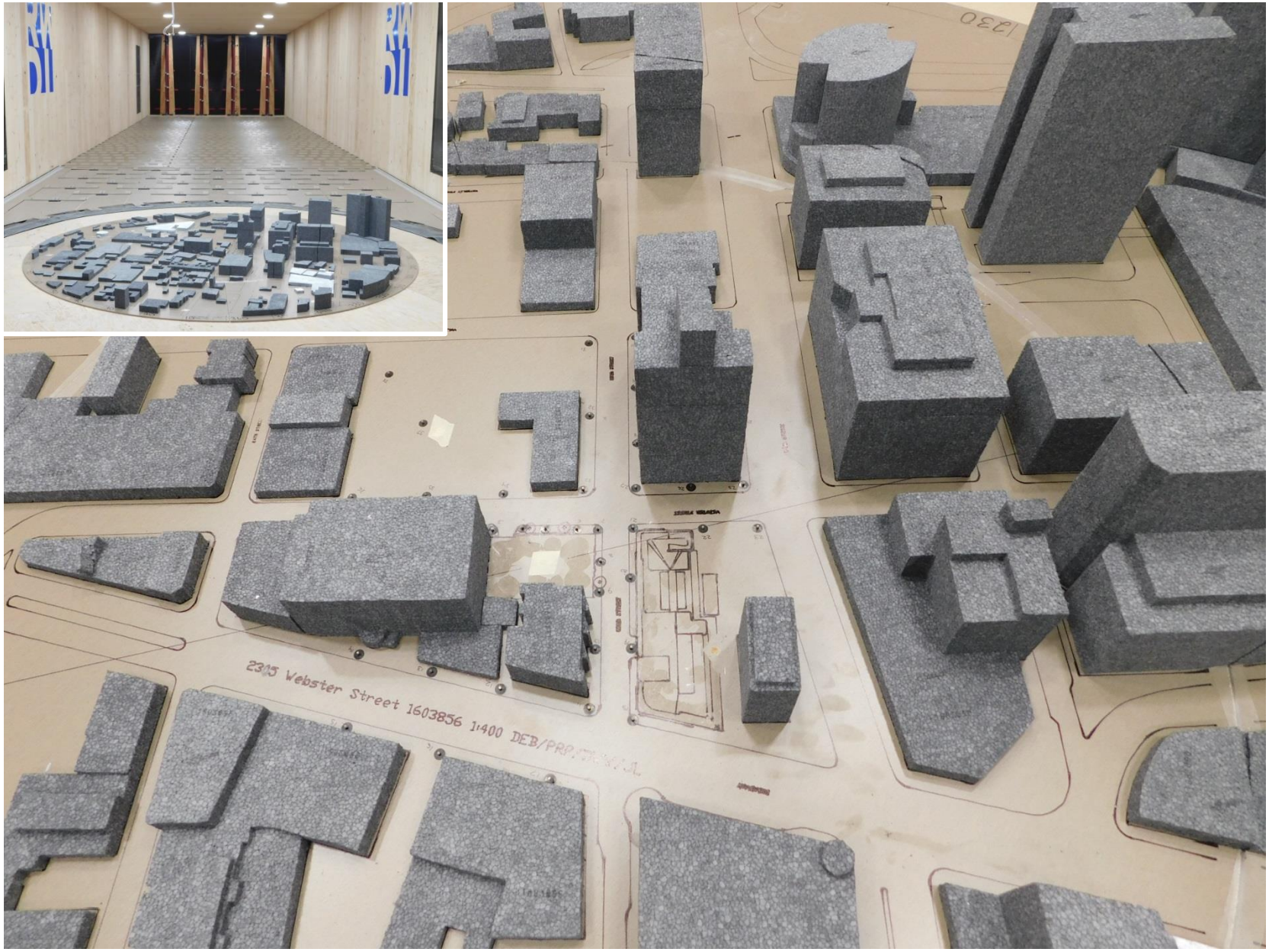
5) Soligo, M.J., Irwin, P.A., Williams, C.J. and Schuyler, G.D. (1998). "A Comprehensive Assessment of Pedestrian Comfort Including Thermal Effects," *Journal of Wind Engineering and Industrial Aerodynamics*, Vol.77&78, pp.753-766.

6) Williams, C.J., Wu, H., Waechter, W.F. and Baker, H.A. (1999). "Experiences with Remedial Solutions to Control Pedestrian Wind Problems," *Tenth International Conference on Wind Engineering*, Copenhagen, Denmark.

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

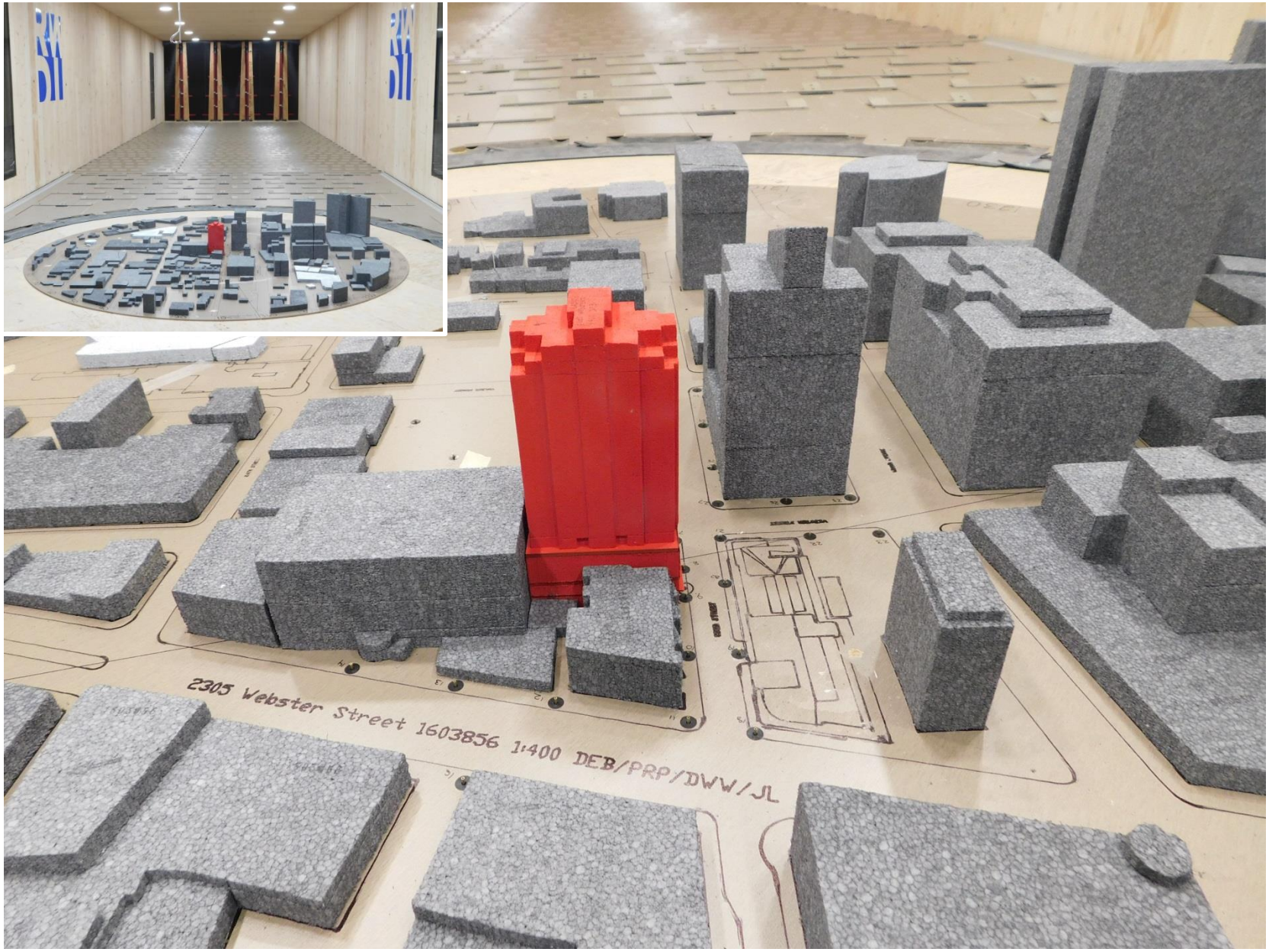
Figure No. 1a

2305 Webster Street – Oakland, CA

Project #1603856

Date: October 31, 2016

RWDI



Wind Tunnel Study Model
Existing + Project

Figure No. 1b

2305 Webster Street – Oakland, CA

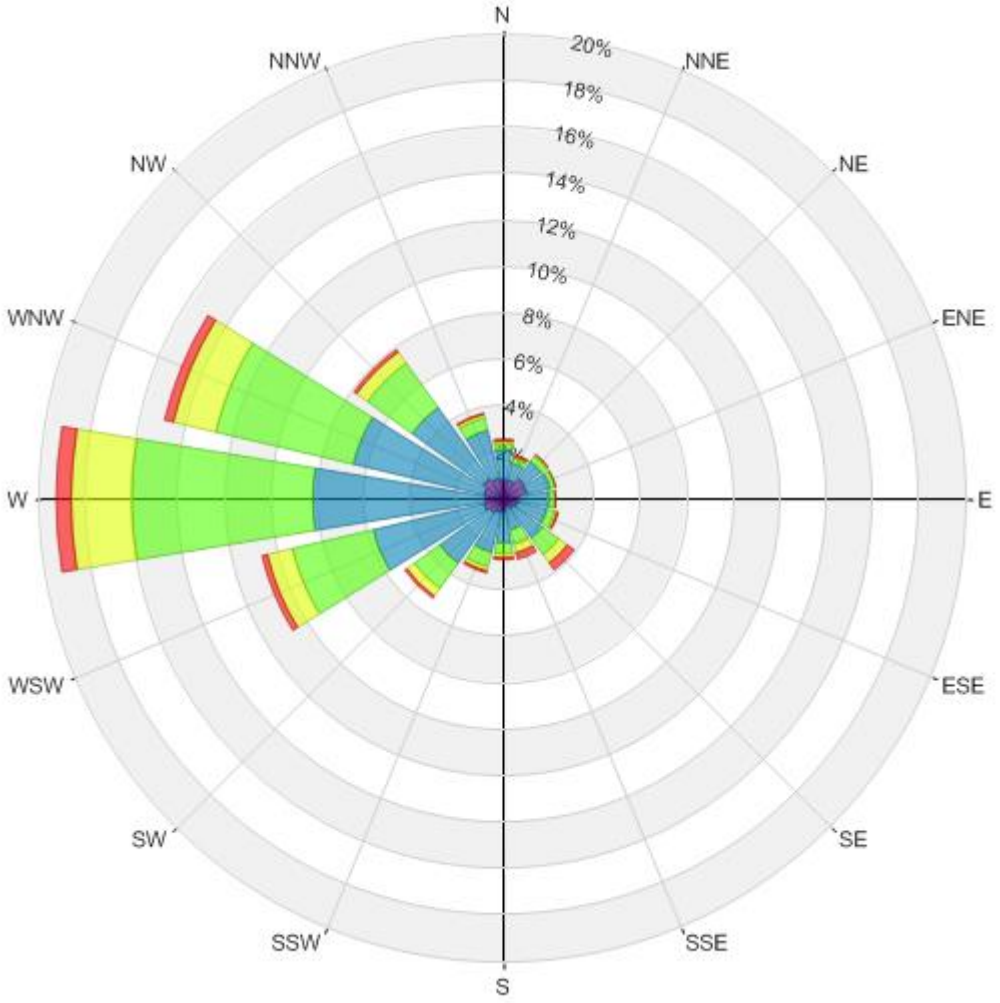
Project #1603856

Date: October 31, 2016

RWDI



Wind Tunnel Study Model **Project + Cumulative**	Figure No. 1c	RWDI
2305 Webster Street – Oakland, CA	Project #1603856	Date: October 31, 2016



Annual Winds

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

Directional Distribution (%) of Winds (Blowing From)
Metropolitan Oakland International Airport (1984 - 2014)

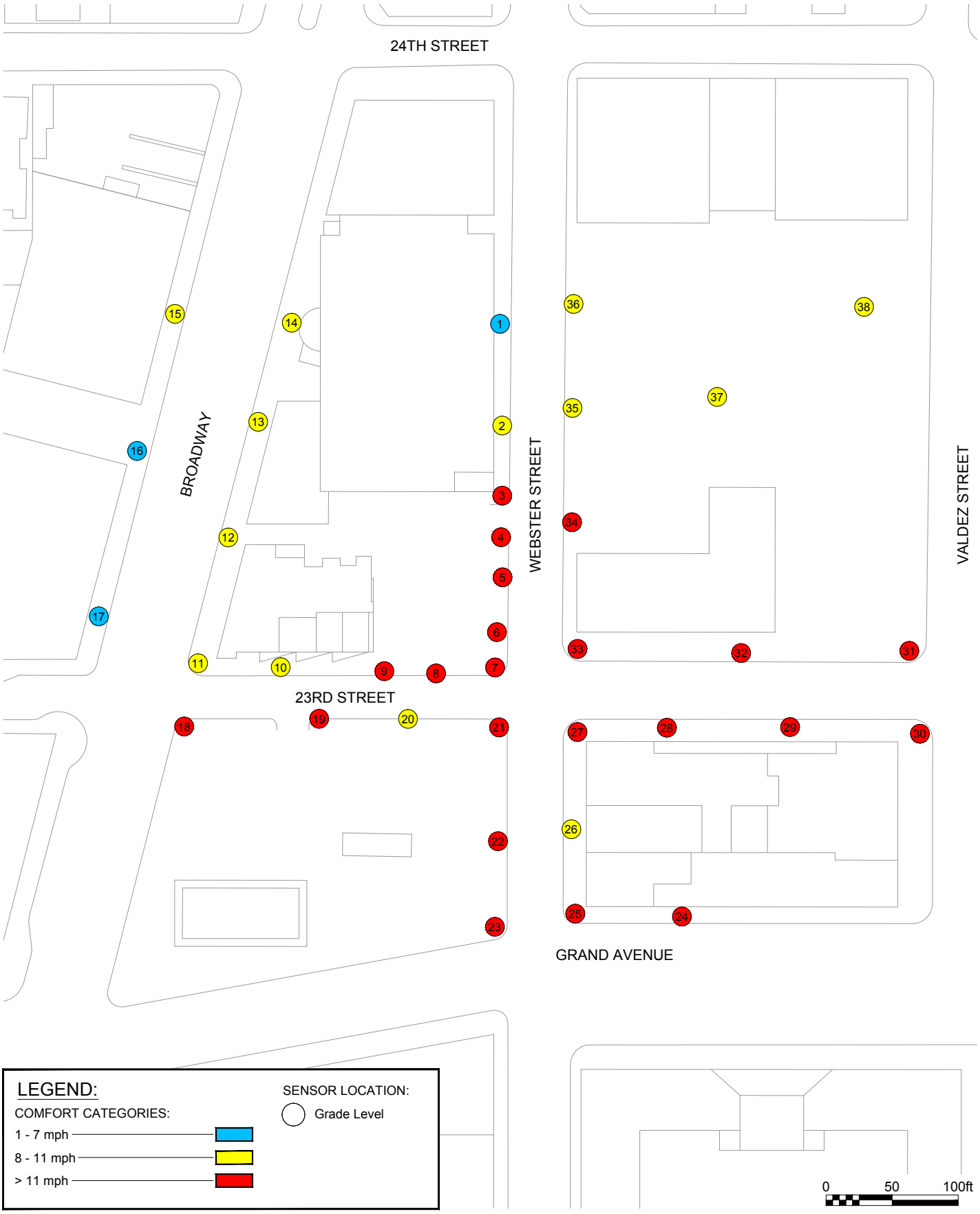
2305 Webster Street – Oakland, CA

Project #1601491

Figure No. 2

Date: May 03, 2016

RWDI



Pedestrian Wind Comfort Conditions - Existing

Annual (January to December)

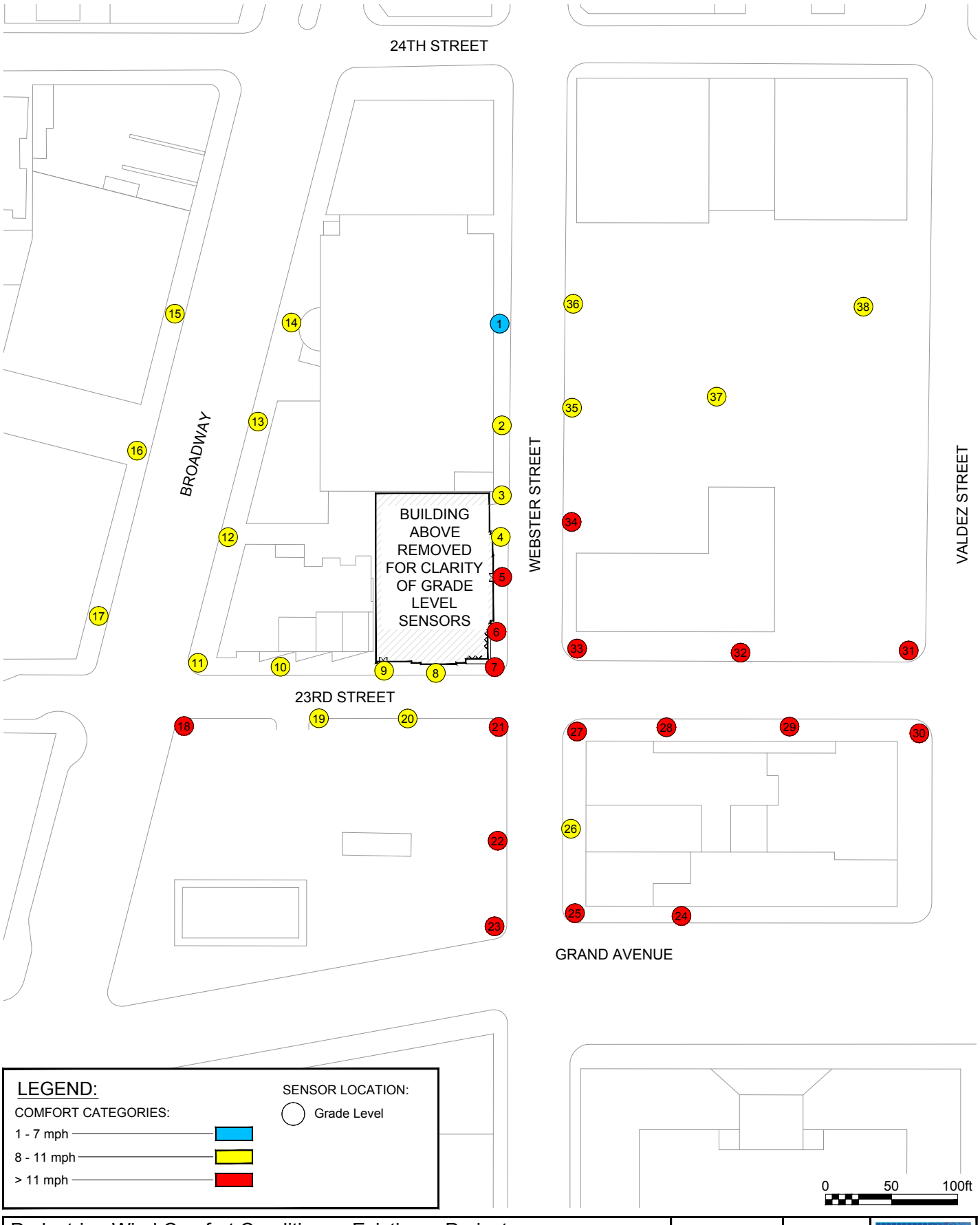
True North

2305 Webster - Oakland, CA

Project #1603856

Drawn by:	ck	Figure:	3a
Approx. Scale:			1"=100'
Date Revised:			Oct. 25, 2016

RWDI



Pedestrian Wind Comfort Conditions - Existing + Project

Annual (January to December)

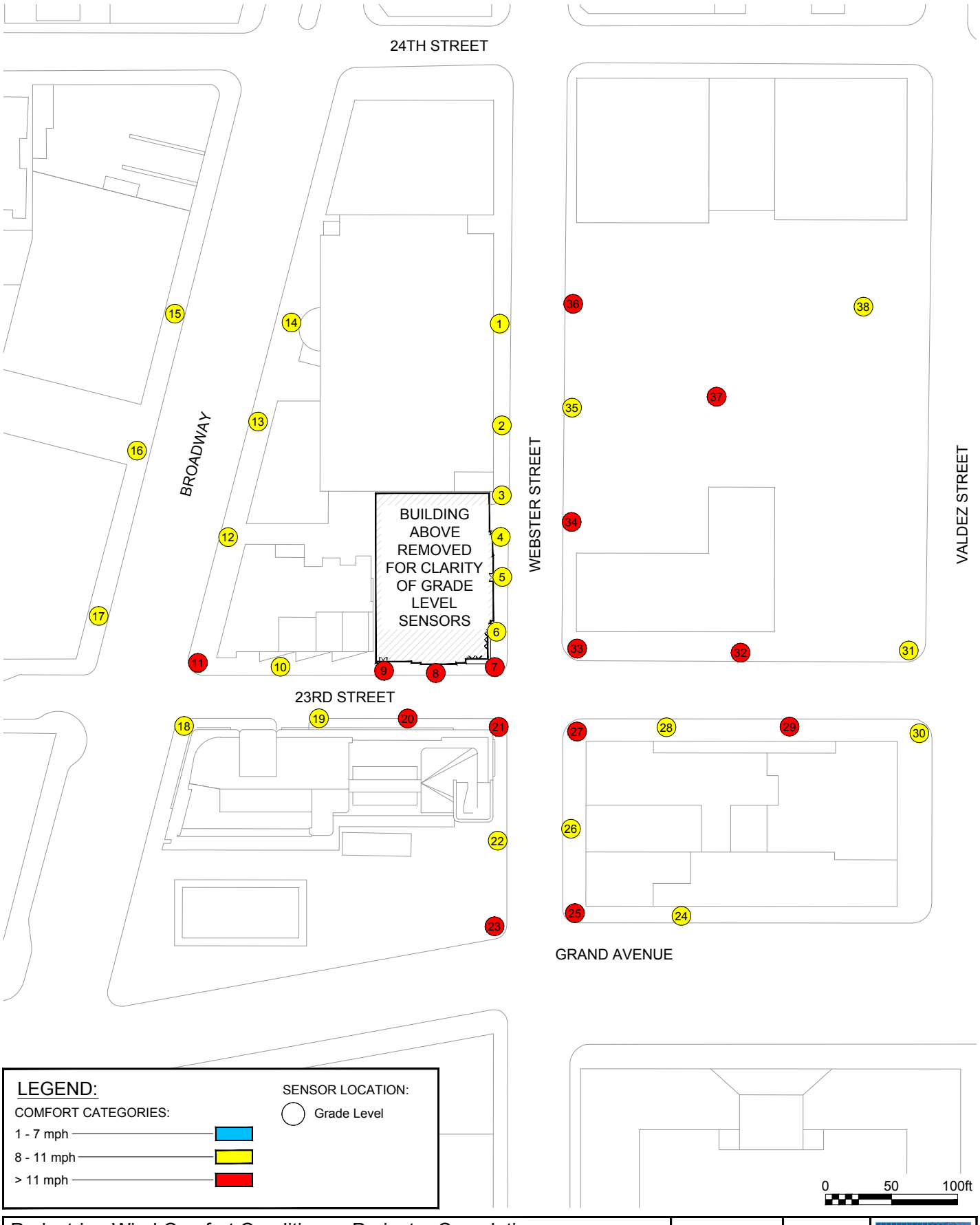
True North

2305 Webster - Oakland, CA

Project #1603856

Drawn by:	ck	Figure:	3b
Approx. Scale:			1"=100'
Date Revised:			Oct. 25, 2016

RWDI



Pedestrian Wind Comfort Conditions - Project + Cumulative

Annual (January to December)

2305 Webster - Oakland, CA

Project #1603856

True North

Drawn by:	ck	Figure:	3c
Approx. Scale:			1"=100'
Date Revised:			Oct. 25, 2016

RWDI

TABLES

Table 1: Wind Hazard Results
Hazard Criterion Speed = 36 mph

References	A Existing			B Existing + Project				C Project + Cumulative			
Location Number	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	17	0	-	20	0	0	-	24	0	0	-
2	19	0	-	18	0	0	-	21	0	0	-
3	28	0	-	23	0	0	-	23	0	0	-
4	29	0	-	23	0	0	-	25	0	0	-
5	28	0	-	25	0	0	-	26	0	0	-
6	28	0	-	25	0	0	-	24	0	0	-
7	30	0	-	33	0	0	-	29	0	0	-
8	27	0	-	22	0	0	-	32	0	0	-
9	28	0	-	20	0	0	-	27	0	0	-
10	18	0	-	21	0	0	-	22	0	0	-
11	23	0	-	25	0	0	-	25	0	0	-
12	22	0	-	22	0	0	-	23	0	0	-
13	20	0	-	21	0	0	-	18	0	0	-
14	24	0	-	24	0	0	-	23	0	0	-
15	25	0	-	25	0	0	-	24	0	0	-
16	18	0	-	19	0	0	-	19	0	0	-
17	11	0	-	24	0	0	-	27	0	0	-
18	27	0	-	28	0	0	-	27	0	0	-
19	25	0	-	26	0	0	-	18	0	0	-
20	26	0	-	26	0	0	-	25	0	0	-
21	36	0	-	35	0	0	-	36	0	0	-
22	35	0	-	34	0	0	-	31	0	0	-
23	32	0	-	31	0	0	-	32	0	0	-
24	26	0	-	26	0	0	-	24	0	0	-
25	36	0	-	35	0	0	-	29	0	0	-
26	29	0	-	28	0	0	-	36	0	0	-
27	35	0	-	34	0	0	-	32	0	0	-
28	28	0	-	28	0	0	-	26	0	0	-
29	28	0	-	28	0	0	-	26	0	0	-
30	34	0	-	34	0	0	-	36	0	0	-
31	32	0	-	32	0	0	-	31	0	0	-
32	35	0	-	36	0	0	-	30	0	0	-
33	30	0	-	29	0	0	-	27	0	0	-
34	29	0	-	32	0	0	-	27	0	0	-
35	19	0	-	22	0	0	-	27	0	0	-
36	21	0	-	22	0	0	-	28	0	0	-
37	22	0	-	22	0	0	-	28	0	0	-
38	22	0	-	24	0	0	-	23	0	0	-
Average speed, Total Hours, Total exceedances	**27 mph**	**0 hr**	**0 of 38**	**27 mph**	**0 hr**	**0 hr**	**0 of 38**	**27 mph**	**0 hr**	**0 hr**	**0 of 38**

Table 2: Wind Comfort Results
Comfort Criterion Speed = 11 mph

References	A Existing			B Existing + Project				C Project + Cumulative			
Location Number	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11mph	Exceeds	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11mph	Speed Change Relative to Existing (mph	Exceeds	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11mph	Speed Change Relative to Existing (mph	Exceeds
1	6	0	-	7	1	1	-	10	7	4	-
2	8	1	-	9	2	1	-	9	4	1	-
3	13	18	e	11	10	-2	-	9	3	-4	-
4	12	17	e	11	10	-1	-	10	6	-2	-
5	13	20	e	12	13	-1	e	10	6	-3	-
6	14	23	e	12	12	-2	e	9	4	-5	-
7	15	27	e	16	33	1	e	14	25	-1	e
8	13	18	e	11	10	-2	-	12	16	-1	e
9	12	15	e	9	4	-3	-	12	16	0	e
10	9	2	-	8	2	-1	-	10	7	1	-
11	11	10	-	11	10	0	-	12	14	1	e
12	10	5	-	10	4	0	-	11	10	1	-
13	9	2	-	8	2	-1	-	8	1	-1	-
14	10	5	-	10	6	0	-	11	10	1	-
15	8	2	-	8	3	0	-	9	3	1	-
16	7	1	-	8	2	1	-	9	3	2	-
17	4	0	-	8	2	4	-	9	4	5	-
18	13	18	e	12	15	-1	e	10	7	-3	-
19	12	16	e	11	10	-1	-	9	2	-3	-
20	11	10	-	11	10	0	-	12	13	1	e
21	16	33	e	15	29	-1	e	13	16	-3	e
22	15	30	e	15	28	0	e	10	7	-5	-
23	14	27	e	14	24	0	e	12	14	-2	e
24	12	16	e	12	17	0	e	11	10	-1	-
25	16	34	e	17	36	1	e	13	17	-3	e
26	9	3	-	8	2	-1	-	10	8	1	-
27	16	34	e	16	34	0	e	14	25	-2	e
28	13	17	e	13	17	0	e	8	3	-5	-
29	13	17	e	13	17	0	e	8	3	-5	-
30	12	14	e	12	15	0	e	10	7	-2	-
31	12	13	e	12	13	0	e	10	8	-2	-
32	17	36	e	17	37	0	e	14	25	-3	e
33	14	25	e	14	26	0	e	13	19	-1	e
34	14	26	e	15	28	1	e	12	13	-2	e
35	8	2	-	10	6	2	-	11	10	3	-
36	9	3	-	9	5	0	-	13	16	4	e
37	10	5	-	10	7	0	-	12	16	2	e
38	8	2	-	9	5	1	-	9	4	1	-
Average speed, Average %, Total exceedances	**12mph**	**15%**	**22 of 38**	**11**	**12mph**	**15%**	**22 of 38**	**11**	**12mph**	**15%**	**22 of 38**

APPENDIX A

APPENDIX A: DRAWING LIST FOR MODEL CONSTRUCTION

The drawings and information listed below were received from First Carbon Solutions and were used to construct the scale model of the proposed 2305 Webster. 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.

File Name	File Type	Date Received (dd/mm/yyyy)
NEV01_Entitlements_160919-Sheet - A050 - SITE PLAN.dxf	AutoDesk Drawing Interchange	20/09/2016
NEV01_Entitlements_160919-Sheet - A101 - FIRST _ SECOND FLOOR PLANS.dxf	AutoDesk Drawing Interchange	20/09/2016
NEV01_Entitlements_160919-Sheet - A102 - THIRD - SIXTH FL PLANS.dxf	AutoDesk Drawing Interchange	20/09/2016
NEV01_Entitlements_160919-Sheet - A104 - SEVENTH FL _ TYPICAL RESIDENTIAL FLOOR PLANS.dxf	AutoDesk Drawing Interchange	20/09/2016
NEV01_Entitlements_160919-Sheet - A105 - PENTHOUSE FLOOR PLANS.dxf	AutoDesk Drawing Interchange	20/09/2016
NEV01_Entitlements_160919-Sheet - A106 - ROOF PLANS.dxf	AutoDesk Drawing Interchange	20/09/2016
NEV01_Entitlements_160919-Sheet - A201 - BUILDING ELEVATIONS.dxf	AutoDesk Drawing Interchange	20/09/2016
NEV01_Entitlements_160919-Sheet - A202 - BUILDING ELEVATIONS.dxf	AutoDesk Drawing Interchange	20/09/2016
NEV01_Entitlements_160919-Sheet - A301 - BUILDING SECTIONS.dxf	AutoDesk Drawing Interchange	20/09/2016
NEV01_Entitlements_160919-Sheet - A305 - WALL SECTIONS.dxf	AutoDesk Drawing Interchange	20/09/2016
NEV01_Entitlements_160919-Sheet - A306 - WALL SECTIONS.dxf	AutoDesk Drawing Interchange	20/09/2016
160915_NEV01_Entitlements Progress Set.pdf	Adobe Portable Document Format	20/09/2016

Attachment G1: Air Quality Screening Analysis for the 2305 Webster Street Mixed Use Residential Project

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FIRSTCARBON SOLUTIONS™

2305 Webster St. Air Quality Analysis

Purpose

The purpose of this report is to provide an air quality analysis to determine whether criteria pollutant emissions from the construction and operation of the 2305 Webster Street Project (project) would exceed the related thresholds of significance adopted by the City of Oakland. This report relied upon the guidance and tools developed by the Bay Area Air Quality Management District (BAAQMD) to assist in performing such analysis.

Project Summary

On the basis of the assessment provided herein,

- The project's unmitigated construction and operational emissions would not exceed the BAAQMD's project-level thresholds of significance.
- The project would implement all BAAQMD Basic Construction Mitigation Measures, which would help reduce construction-related emissions and comply with BAAQMD requirements for all projects.
- The construction and operation of the project would not result in a project-level or cumulatively significant impact. Consequently, the analysis and conclusions of the BVDSP EIR are still valid for this project and the project's impacts would not exceed those determined in the BVDSP EIR.

Thresholds of Significance for Construction and Operational-related Emission

The proposed project is located in Alameda County, which is in the San Francisco Bay Area Basin (SFBAAB). BAAQMD is the regional agency tasked with managing air quality within the SFBAAB. The BVDSP EIR has used the BAAQMD's thresholds of significance for construction and operational-related emissions, shown in Table 1.

Table 1: Thresholds of Significance

Pollutant	Construction Thresholds Average Daily Emissions (lbs/day)	Operational Thresholds	
		Average Daily Emissions (lbs/day)	Annual Average Emissions (tons/year)
ROG	54	54	10
NO_X	54	54	10
PM_{10} (exhaust only)	82	82	15
$PM_{2.5}$ (exhaust only)	54	54	10
Source: BAAQMD 2010.			

Methodology

The proposed Project's construction and operational air quality impacts were modeled using the California Emission Estimator Model (CalEEMod) Version 2016.3.1. The modeling assumptions and outputs are provided in their entirety in Attachment G.2.

Construction Emissions

Construction emissions result from on- and off-site activities. On-site emissions principally consist of exhaust emissions from the heavy-duty off-road construction equipment, on-site motor vehicle operation, and fugitive PM dust (mainly particulate matter with aerodynamic diameter less than 10 microns [PM_{10}]) from disturbed soil. Off-site emissions are caused by motor vehicle exhaust from delivery and haul trucks, worker vehicles, and road dust (PM_{10} and particulate matter with aerodynamic diameter less than 2.5 microns [$PM_{2.5}$]) generated by construction-related vehicles. BAAQMD considers implementation of their Basic Construction Mitigation Measures to be sufficient for most typical projects to minimize generation of fugitive PM dust.

The Project was assumed to start construction in February 2018 and to be completed by January 2020. The construction schedule was provided by the applicant based on the construction schedule for a similar project. See Attachment G.2 for detailed construction assumptions and CalEEMod outputs.

Operational Emissions

Operational emissions would be generated by area, energy and mobile sources. Area sources would include activities such as landscape maintenance and periodic architectural coating. Energy sources would include electricity use and natural gas combustion for space and water heating. Mobile sources would include vehicle trips associated with residents, visitors, employees, and delivery trucks.

Estimation of Construction and Operational-related Emissions

CalEEMod, which was used to estimate project-related construction and operational emissions, provides a consistent platform for estimating construction and operational emissions from a wide variety of land use projects and is the methodology recommended by the BAAQMD for estimating project emissions. The construction schedule and construction equipment inventory was derived from CalEEMod default assumptions based on the type and size of land uses to be developed.

The BVDSP EIR states the Specific Plan would generate average daily construction and operational emissions in excess of the BAAQMD's thresholds of significance, therefore, result in significant and unavoidable air quality impacts.[1] As for this project, Table 2and Table 3 show the construction and operational-related emissions without mitigation.

Table 2: Average Daily Construction Emissions—Unmitigated

Construction Phase	Emissions (tons/year)[1]			
	ROG	NO_X	PM_{10} (exhaust)	$PM_{2.5}$ (exhaust)
2018 Total Emissions	0.36	2.5	0.13	0.12
2019 Total Emissions	1.27	2.21	0.11	0.11
2020 Total Emissions	0.05	0.00	0.00	0.00
Total Construction Emissions	**1.68**	**4.71**	**0.24**	**0.23**
Average Daily Emissions (lbs/day)[2]	6.4	17.8	0.9	0.9
Significance Threshold (lbs/day)	**54**	**54**	**82**	**54**
Exceeds Significance Threshold?	No	No	No	No

Notes:

Calculations use unrounded totals.

lbs = pounds ROG = reactive organic gases NO_X = oxides of nitrogen

PM_{10} = particulate matter with aerodynamic diameter less than 10 microns in diameter

[1] Broadway Valdez District Specific Plan EIR. Sep. 2013.

Construction Phase	Emissions (tons/year)[1]			
	ROG	NO_X	PM_{10} (exhaust)	$PM_{2.5}$ (exhaust)

$PM_{2.5}$ = particulate matter with aerodynamic diameter less than 2.5 microns in diameter
[1] All emissions are shown in units of tons per year unless noted otherwise.
[2] Calculated by dividing the total pounds of emissions by the total 528 construction working days.

Source: CalEEMod and FirstCarbon Solutions, see Attachment G-2.

Table 3: Annual and Average Daily Operational Emissions—Unmitigated

Emissions Source[2]	Emissions (tons/year)[1]			
	ROG	NO_x	PM_{10} (exhaust)	$PM_{2.5}$ (exhaust)
Area	0.70	0.02	0.01	0.01
Energy	0.01	0.08	0.01	0.01
Mobile	0.20	1.30	0.01	0.01
Total	*0.90*	*1.50*	*0.03*	*0.3*
Thresholds of Significance	**10**	**10**	**15**	**10**
Exceeds Significance Threshold?	No	No	No	No
Average Daily Operational Emissions (lbs/day)	*4.98*	*7.67*	*0.11*	*0.11*
Thresholds of Significance (lbs/day)	**54**	**54**	**82**	**54**
Exceeds Significance Threshold?	No	No	No	No

Notes:

ROG = reactive organic gases NO_X = oxides of nitrogen PM_{10} = particulate matter 10 microns or less in diameter $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; lbs = pounds

[1] All emissions are shown in units of tons per year unless noted otherwise.

Source: CalEEMod and FirstCarbon Solutions, see Attachment G.2.

As shown in Table 2 and Table 3, the project would not generate construction- or operational-related emissions that exceed the BAAQMD's thresholds of significance. Therefore, construction and operational related emissions associated with the proposed project would not result in a more severe impact than what was previously disclosed in the BVDSP EIR.

The BAAQMD CEQA guidelines state that:

For all proposed projects, BAAQMD recommends the implementation of all Basic Construction Mitigation Measures listed below, whether or not construction-related emissions exceed applicable thresholds of significance:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. 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.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
8. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

With implementation of the Basic Construction Mitigation Measures, the project would comply with all BAAQMD-required control measures and would not exceed any thresholds of significance. Therefore, the project's construction emissions would not violate any air quality standard or contribute substantially to an existing or projected violation.

Considering the information above, the project's construction and operational-related emissions on annual and daily basis would not result in more significant impacts than those identified in the BVSDP EIR. Consequently, the analysis and conclusions of the BVSDP EIR are still valid for this project.

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Attachment G2: Health Risk Screening Analysis for the 2305 Webster Street Mixed Use Residential Project

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2305 Webster St. Health Risks Assessment

Purpose

The purpose of this report is to provide a health risk assessment to determine whether toxic air contaminant (TAC) emissions from the construction and operation of the2305 Webster Street Project (project) would exceed health risk thresholds of significance adopted by the City of Oakland. This report relied upon the guidance and tools developed by the Bay Area Air Quality Management District (BAAQMD) to assist in performing such health risk assessments. In accordance with BAAQMD guidance and tools, all sources of TAC emissions located within 1,000 feet of the project were identified and their potential cumulative health impacts along with those from the project were quantified.

Project Summary

This health risk assessment consisted of four principal components:

1. Quantify the TAC emissions from the construction and operation of the project.
2. Identify the existing and reasonably foreseeable sources of TAC emissions and their emission levels located within a 1,000-foot radius from the project.
3. Estimate the health impacts to surrounding sensitive receptors such as residences and schools from the project-level construction and operational emissions using a refined air dispersion modeling assessment and as part of the cumulative assessment of health risks from the identified sources of TAC emissions within 1,000 feet of the project.
4. Compare the resulting project-level and cumulative health impacts with health risk significance thresholds adopted by the City of Oakland.

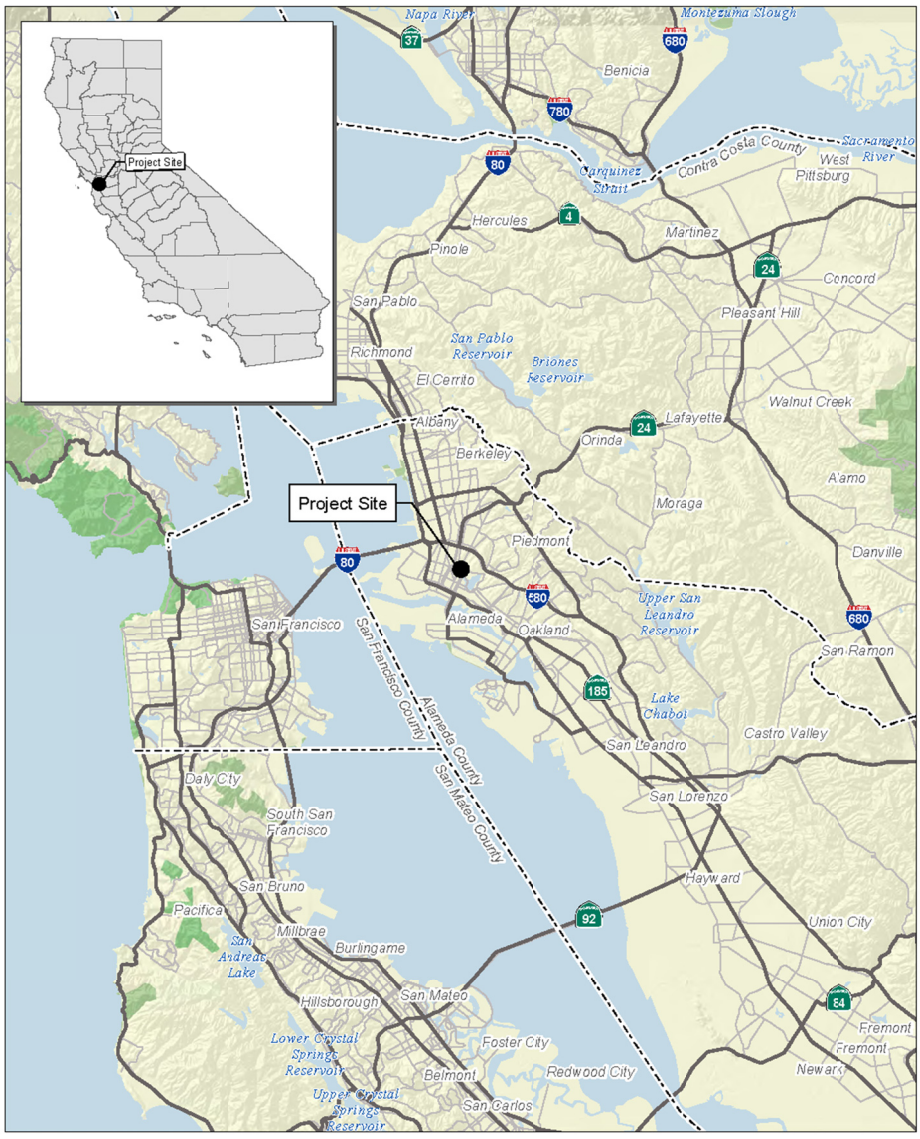
On the basis of the assessment provided herein,

- The project's construction and operational emissions would not exceed the City of Oakland's project-level health risk thresholds of significance after application of standard conditions of acceptance and mitigation measures.

- The project's construction and operational emissions after application of mitigation in combination with TAC emissions from existing and future sources of TAC emissions within 1,000 feet of the project would not expose nearby sensitive receptors to cancer risks or hazard levels that exceed the City of Oakland's cumulative health risk thresholds of significance.

Therefore, there would be nothing unique or peculiar about the projects' proximity to sensitive receptors. Consequently, the analysis and conclusions of the BVDSP EIR are still valid for this project.

Exhibit 1: Regional Location Map



Source: Census 2000 Data, The CaSIL, FCS GIS 2016.

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5 2.5 0 5 Miles

Exhibit 1
Regional Location Map

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HEALTH RISK ASSESSMENT

Exhibit 2: Locations of Sensitive Receptors



Source: ESRI Imagery, 2015

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250 125 0 250 Feet

Exhibit 3
Location of Sensitive Receptors

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HEALTH RISK ASSESSMENT

Toxics Air Contaminants of Concern

TACs are air pollutants present in miniscule amounts in the air that, if a person is exposed to them, could increase the chances of experiencing health problems. Exposures to TAC emissions can have both chronic long-term (over a year or longer) and acute short-term (over a period of hours) health impacts. The TACs of greatest concern are those that cause serious health problems or affect many people. Health problems can include cancer, respiratory irritation, nervous system problems, and birth defects. Some health problems occur very soon after a person inhales a TAC. These immediate effects may be minor, such as watery eyes; or they may be serious, such as life-threatening lung damage. Other health problems may not appear until many months or years after a person's first exposure to the TAC. Cancer is one example of a delayed health problem.

This assessment focuses on particulate pollution, which is a mixture of microscopic solids and liquid droplets suspended in air. This type of air pollution, also known as fine particulate matter, is made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals, metals, soil or dust particles, and allergens (such as fragments of pollen or mold spores).

Fine particle pollution or $PM_{2.5}$ describes particulate matter that is 2.5 micrometers in diameter and smaller—one-thirtieth the diameter of a human hair. Fine particle pollution can be emitted directly or formed secondarily in the atmosphere. $PM_{2.5}$ health impacts are important because their size can be deposited deeply in the lungs causing respiratory effects.

For purposes of this study, exhaust emissions of $PM_{2.5}$ are represented as diesel particulate matter (DPM), a major component of $PM_{2.5}$. Studies indicate that DPM poses the greatest health risk among airborne TACs. A 10-year research program (ARB 1998)[1] demonstrated that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic long-term health risk. DPM differs from other TACs in that it is not a single substance but a complex mixture of hundreds of substances. Although DPM is emitted by diesel-fueled, internal combustion engines, the composition of the emissions varies, depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present. Unlike the other TACs, however, no ambient monitoring data are available for DPM because no routine measurement method currently exists. The California Air Resources Board (ARB) has made preliminary concentration estimates based on a DPM exposure method. This method uses the ARB emissions inventory's PM_{10} database, ambient $PM_{2.5}$ monitoring data, and the results from several studies to estimate concentrations of DPM.

Sources of DPM (as exhaust $PM_{2.5}$ emissions) from the project include DPM emissions from the operation of off-road equipment and vehicle travel during construction. During project operation, the California Building Code requires a backup generator for elevators in buildings that are five or more stories in height (approximately 75 feet). Since the proposed building would have 24 floors, the project would be required to install a backup emergency generator to power elevators, fire pumps, and emergency lighting. The primary TAC of concern associated with the backup emergency generator is DPM from the

[1] ARB. 1998. The Toxic Air Contaminant Identification Process: Toxic Air Contaminant Emissions from Diesel-fueled Engines. Website: www.arb.ca.gov/toxics/dieseltac/factsht1.pdf.

use of diesel fuel to power the generator. To operate a backup emergency generator, the project would be required to comply with the BAAQMD's permit requirements for a stationary source.

Standard Conditions of Approval and Mitigation Measure Applicable to the Project

Potential environmental impacts of development under the BVDSP were analyzed in the BVDSP EIR, and the EIR identified mitigation measures and Standard Conditions of Approval (SCAs) to address these potential environmental impacts[2]. This assessment incorporates by reference the BVDSP EIR discussion and analysis of all potential environmental impact topics. The proposed project is required to comply with applicable mitigation measures identified in the BVDSP EIR, and with City of Oakland SCAs. The project sponsor has agreed to incorporate and/or implement the required mitigation measures and SCAs as part of the proposed project. References to the applicable mitigation measures and SCAs are provided in Appendix A to this report.

With specific regards to subsections SCA AIR-1 (w) and (x) of the SCAs that require construction equipment and diesel trucks to be equipped with Best Available Control Technology and meet the ARB's most recent certification standard, the project must deploy construction equipment meeting Tier 4 emission standards that is the most recent certification standard. Therefore, this construction health risk assessment assumed the deployment of construction equipment that meets Tier 4 emission standards for project mitigation during construction.

In accordance with BVDSP EIR Mitigation Measure AIR-4, projects that would operate a new generator within the BVDSP area are also required to prepare and implement a Risk Reduction Plan that would reduce cumulative cancer risks to the maximum extent feasible. For purposes of this assessment, it was assumed that the project would install a diesel generator with a United States Environmental Protection Agency-certified Tier 4 engine.

Health Risk Significance Thresholds

The City of Oakland CEQA Thresholds of Significance provide quantitative thresholds for both project-level impacts and cumulative impacts. The health risk thresholds of significance applicable for this assessment are provided in Table 1 for an individual, project-level TAC emission source impact as well as the cumulative impacts of all TAC sources located within a 1,000-foot radius of the project.

Table 1: City of Oakland Health Risk Thresholds of Significance

Metric	Individual Source Impact	Cumulative Source Impact
Cancer Risk	10 in one million (sources within a 1,000-foot zone of influence)	100 in one million(sources within a 1,000-foot zone of influence)
Non-Cancer Hazard Index	1.0 (sources within a 1,000-foot zone of influence)	10.0 (sources within a 1,000-foot zone of influence)

[2] Broadway Valdez District Specific Plan, Draft Environmental Impact Report, September 2013. Website: http://www2.oaklandnet.com/oakca1/groups/ceda/documents/report/oak043027.pdf

Annual $PM_{2.5}$	0.3 $\mu g/m^3$(sources within a 1,000-foot zone of influence)	0.8 $\mu g/m^3$(sources within a 1,000-foot zone of influence)
Note: $\mu g/m^3$ = microgram per cubic meter Source: City of Oakland CEQA Thresholds of Significance Guidelines, October 2013. Website: http://www2.oaklandnet.com/oakca1/groups/ceda/documents/report/oak051200.pdf		

Health Risk Assessment and Methodology

A Health Risk Assessment (HRA) is a guide that helps to determine whether current or future exposures to a chemical or substance in the environment could affect the health of a population. In general, risk depends on the following factors:

- Identifying the TACs that may be present in the air;
- Estimating the amount of TACs released from all sources, or the source of particular concern, using air samples or emission models;
- Estimating concentrations of TACs in air in the geographic area of concern by using air dispersion models with information about emissions, source locations, weather, and other factors; and
- Estimating the concentrations of the TAC at different geographic locations and their potential health impacts.

Thus, an HRA identifies the TACs that could affect public health, identifies the sources of the TAC emissions and quantifies the emissions, estimates where the emissions are transported by prevailing meteorological conditions, and determines the potential exposures to individuals affected by the TACs.

Estimation of Project-Level Construction Emissions

The $PM_{2.5}$ construction emissions were estimated using the CalEEMod Land Use Emission Model (Version 2016.3.1). The CalEEMod model provides a consistent platform for estimating construction and operational emissions from a wide variety of land use projects and is the methodology recommended by the BAAQMD for estimating project emissions. The project's construction emissions were derived from the emission estimates contained in Appendix B. The construction assumed the default assumptions built into the CalEEMod model for the type of land uses specific to the project in terms of construction schedule and construction equipment inventory.

Because the project would implement the subsections (w) and (x) of SCA-AIR-1, which require equipment and diesel trucks to be equipped with Best Available Control Technology and meet the California Air Resources Board's most recent certification standard. In order to comply with the subsections mentioned above, the project sponsor would required to ensure that construction equipment meet Tier 4 emissions standards. Therefore,Table 2 summarizes the Tier 4 mitigated annual construction emissions of DPM (as $PM_{2.5}$ exhaust). Note that because of the short time of construction assumed in the construction schedule in 2020 (only 1 day), for purposes of the air dispersion modeling of the construction emissions, all construction emissions for the year 2020 were assumed to be emitted in 2019.

Table 2: Project Annual DPM (as $PM_{2.5}$ exhaust) Construction Emissions

Annual Construction Emissions (With Tier IV Mitigation)[3]			
Year	On-site DPM (as $PM_{2.5}$ Exhaust) (tons/year)	Off-site DPM[2] (as $PM_{2.5}$ Exhaust) (tons/year)	Total $PM_{2.5}$ (tons/year)
2018	0.004	0.0002	0.0038
2019	0.004	0.0002	0.0038
Total	0.008	0.0004	0.0076

Notes:
[2]The offsite emissions are estimated over the construction vehicle travel route from the project, along 23rd Street, Broadway, and 27th Street to Interstate 980
[3] Mitigated emissions reflect the Standard Conditions and Approvals/Mitigation Measures shown in Appendix A including the deployment of off-road construction equipment meeting the Tier 4 emission standard
Source: see Appendix B and C.

Air Dispersion Modeling - Construction

An air dispersion model is a mathematical formulation that is used to estimate the air quality impacts at specific locations (receptors) surrounding a source of emissions given the rate of emissions and prevailing meteorological conditions. The air dispersion model applied in this assessment was the United States Environmental Protection Agency (EPA) AERMOD air dispersion model that is approved by the BAAQMD for air dispersion assessments. Specifically, the AERMOD model was used to estimate levels of TACs at sensitive receptor locations from the project's construction $PM_{2.5}$ exhaust emissions.

Two emission sources were used to represent the project's $PM_{2.5}$ construction emissions. One source represented the generation of on-site construction DPM emissions (as$PM_{2.5}$ exhaust) from the off-road construction equipment and was assumed to cover the entire construction area of approximately 0.2 acres. The emissions from the exhaust source were assumed to be emitted at a height of 5 meters above ground to account for the height of the top of the equipment exhaust stack where the emissions are released to the atmosphere and the increase in the height of the emissions due to its heated exhaust. A second emission sources included the off-site DPM (as $PM_{2.5}$ exhaust) emissions from worker, haul truck, and vendor truck vehicles. The off-site vehicle emissions were represented in the AERMOD model as line volume sources with a release height of 3.7 meters. The off-site construction vehicles were assumed to travel from the project along 23rd Street, Broadway, and 27th Street to Interstate 980. Construction was assumed to take place on an 8 hour/5 day per week basis during the period from 2018 to 2019.

Estimation of Cancer Risks

The BAAQMD has developed a set of guidelines[3] for estimating cancer risks that provide adjustment factors that emphasize the increased sensitivities and susceptibility of young children to exposures to TACs. These

[3] BAAQMD 2016. Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines. Website: http://www.baaqmd.gov/~/media/files /planning-and-research/rules-and-regs/workshops/2016/reg-2-5/hra-guidelines_clean_jan_2016-pdf.pdf?la=en.

adjustment factors include age-sensitivity weighting factors, age-specific daily breathing rates, and age-specific time-at-home factors. The recommend method for the estimation of cancer risk is shown in the following equations with the various cancer risk adjustment factors provided in Table 3 for sensitive/ residential receptors.

$$\text{Cancer Risk} = C_{DPM} \times \text{Inhalation Exposure Factor})$$

Where:

Cancer Risk = Total individual excess cancer risk defined as the cancer risk a hypothetical individual faces if exposed to carcinogenic emissions from a particular source for specified exposure durations; this risk is defined as an excess risk because it is above and beyond the background cancer risk to the population; cancer risk is expressed in terms of risk per million exposed individuals.

C_{DPM} = Period average DPM air concentration calculated from the air dispersion model in $\mu g/m^3$

Inhalation is the most important exposure pathway to impact human health from DPM and the inhalation exposure factor is defined as follows:

$$\text{Inhalation Exposure Factor} = \text{CPF} \times \text{EF} \times \text{ED AAF/AT}$$

Where:

CPF = Inhalation cancer potency factor for the TAC: 1.1 $(mg/kg\text{-}day)^{-1}$ for DPM
EF = Exposure frequency (days/year)
ED = Exposure duration (years)
AAF = set of age-specific adjustment factors that include age sensitivity factors (ASF), daily breathing rates (DBR), and time at home factors (TAH)—see Table 3.
AT = Averaging time period over which exposure is averaged (days)

Table 3: Exposure Assumptions for Cancer Risk

Receptor Type	Exposure Frequency		Exposure Duration (years)	Age Sensitivity Factors (ASF)	Time at Home Factor (TAH) (%)	Daily Breathing Rate (DBR) [1] (L/kg-day)
	Hours/day	Days/year				
Sensitive/Residential—Infant						
3rd Trimester	24	350	0.25	10	85	361
0-1 year	24	350	1	10	85	1,090
Sensitive Receptor—Child						
3 to 16 years	24	350	1	3	73	572
Sensitive Receptor—Adult						
> 16 years	24	350	1	1	72	261

Notes:
(1) The daily breathing rates recommended by the BAAQMD for sensitive/residential receptors assume the 95th percentile breathing rates for all individuals less than 2 years of age and 80th breathing rates for all older individuals
(L/kg-day) = liters per kilogram body weight per day
Source: BAAQMD 2016. Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines. Website: http://www.baaqmd.gov/~/media/files/planning-and-research/rules-and-regs/workshops/2016/reg-2-5/hra-guidelines_clean_jan_2016-pdf.pdf?la=en

Estimation of Non-Cancer Hazards

An evaluation of the potential non-cancer effects of chronic chemical exposures was also conducted. Adverse health effects are evaluated by comparing the annual receptor concentration of each chemical compound with the appropriate reference exposure limit (REL). Available RELs promulgated by the California Office of Environmental health Hazards Assessment (OEHHA) were considered in the assessment.

To quantify non-carcinogenic impacts, the hazard index approach was used.

$$HI = C_{ann}/REL$$

Where:

HI = chronic hazard index
C_{nn} = annual average concentration of TAC as derived from the air dispersion model ($\mu g/m^3$)
REL = reference exposure level above which a significant impact is assumed to occur ($\mu g/m^3$)

The hazard index assumes that chronic sub-threshold exposures adversely affect a specific organ or organ system (toxicological endpoint). For each discrete chemical exposure, target organs presented in regulatory guidance were used. To calculate the hazard index, each chemical concentration or dose is divided by the appropriate toxicity reference exposure level. For compounds affecting the same toxicological endpoint, this ratio is summed. Where the total equals or exceeds 1, a health hazard is presumed to exist. For purposes of this assessment, the TAC of concern is DPM for which the OEHHA has defined a REL for DPM of 5 $\mu g/m^3$. The principal toxicological endpoint assumed in this assessment was through inhalation.

Estimation of $PM_{2.5}$ Hazards

The BAAQMD has included significance thresholds for $PM_{2.5}$ due to recent studies that show health impacts from exposure to this pollutant. The construction emissions of $PM_{2.5}$ incorporated into this assessment included DPM (as $PM_{2.5}$ exhaust).

Estimates of Health Risks and Hazards from Project Construction

The estimated health and hazard impacts at the maximum impacted sensitive receptor from the project's construction emissions after Tier IV mitigations are provided in **Error! Reference source not**

found.. The maximum impacted sensitive receptor (MIR) was found at an existing residence located approximately 25 feet west of the project at 2300 Broadway.

Table 4 summarizes the project's construction impacts after the application of the standard conditions of approval and mitigation identified above in Appendix A and the use of Tier 4 off-road construction equipment.

Table 4: Estimated Health Risks and Hazards: Project Construction—With Tier IV Mitigation

Source	Cancer Risk (risk per million)	Chronic Non-Cancer Hazard Index[(2)]	Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Risks and Hazards at the Maximum Impacted Sensitive Receptor (MIR): Infant[(1)]	3.7	0.003	0.01
Risks and Hazards at the Maximum Impacted Sensitive Receptor (MIR): Child[(1)]	0.5	0.003	0.01
Risks and Hazards at the Maximum Impacted Sensitive Receptor (MIR): Adult[(1)]	0.1	0.003	0.01
City of Oakland Thresholds of Significance	10	1	0.3
Exceeds Individual Source Threshold?	No	No	No

Notes:
(1) Maximum impacted sensitive receptor is a residence located approximately 25 feet west of the project 2300 Broadway.
(2) Chronic non-cancer hazard index was estimated by dividing the annual DPM concentration (as $PM_{2.5}$ exhaust) by the REL for DPM of 5 $\mu g/m^3$.
Source: Appendix C.

As noted in Table 4, the project's construction emissions would not exceed any of the City of Oakland's thresholds of significance after application of mitigation at the MIR and would therefore represent a less than significant impact on a project level.

Estimates of Health Risks and Hazards from Project Operation

Consistent with the California Building Code, a backup emergency generator is required for elevators in buildings that are five or more stories in height (approximately 75 feet)[4]. Since the proposed building would have 24 floors, the project would be required to install a backup emergency generator. The size of the backup emergency generator is unknown at this time. The BAAQMD does not issue permits to operate for stationary sources that result in an excess cancer risk of greater than 10 in one million or a

[4] California Building Code Volume 2, Supplement, Chapter 27 , Section 2702.2.15 July 2015: Website: http://codes.iccsafe.org/app/book/content/2015_CALIFORNIA/2013%20CALIFORNIA%20BUILDING%20CODE%20VOL%202,%20SUPPLEMENT%20JULY%202015/Chapter%2027.html

chronic non-cancer hazard index of greater than 1.0[5]. Conservatively assuming the backup emergency generator for the project would result in a maximum excess cancer risk of 10 in one million due to emissions of diesel particulate matter, the BAAQMD's Risk and Hazards Emissions Screening Calculator (Beta Version)[6] was used to estimate the equivalent screening-level health risks values for chronic HI and annual average PM2.5 concentrations. The health risk screening values were then refined based on the distance from the backup emergency generator to the MIR using the BAAQMD's Diesel Internal Combustion Engine Distance Multiplier Tool[7]. The project's operational risks and hazards from the diesel backup emergency generator are summarized in Table 5. As noted from Table 5, the operation of the project's diesel backup emergency generator would not exceed the City of Oakland's health risk thresholds of significance.

Table 5: Project Operational Risks and Hazards

Source	Cancer Risk (risk per million)	Chronic Non-Cancer Hazard Index(2)	Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Risks and Hazards at the Maximum Impacted Sensitive Receptor (MIR): Infant(1)	9.5	0.03	0.02
Risks and Hazards at the Maximum Impacted Sensitive Receptor (MIR): Child(1)	1.2	0.03	0.02
Risks and Hazards at the Maximum Impacted Sensitive Receptor (MIR): Adult(1)	0.2	0.03	0.02
City of Oakland Thresholds of Significance	10	1	0.3
Exceeds Individual Source Threshold?	No	No	No

Notes:
(1) Maximum impacted sensitive receptor is a residence located approximately 25 feet west of the project 2300 Broadway.
(2) Chronic non-cancer hazard index was estimated by dividing the annual DPM concentration (as $PM_{2.5}$ exhaust) by the REL for DPM of 5 $\mu g/m^3$.
Source: Appendix D.

Estimates of Cumulative Health Risks and Hazards

As noted above, the community risk from the project's construction and operational emissions would not exceed the health risk significance thresholds after application of mitigation and standard conditions of approval.

The BAAQMD also recommends assessing the potential cumulative impacts from sources of TACs within 1,000 feet of a project. To implement this recommendation, a screening level assessment was conducted to determine cumulative health impacts. The screening analysis applied a series of screening tools developed by the BAAQMD to provide conservative estimates of how much existing TAC sources would

[5] BAAQMD's New Source Review for TACs (Regulation 2, Rule 5).
[6] BAAQMD, 2016. Risk and Hazards Emissions Screening Calculator (Beta Version).
[7] BAAQMD, 2012c. Diesel Internal Combustion Engine Distance Multiplier Tool. 13 June

contribute to cancer risk, chronic hazard index (HI), and/or fine particulate matter ($PM_{2.5}$) concentrations in a community. The individual health risks associated with each source are summed to find the cumulative impact at the location of the MIR based on the project-level impacts. Based on proximity to the project site, the MIR was assumed to be a resident located at 2300 Broadway approximately 25 feet west of the project site.

The cumulative health risk assessment identified fourteen existing stationary sources of TAC emissions within 1,000 feet of the MIR (Table 6 and Exhibit 3). Preliminary health risk screening values at the MIR from the stationary sources were determined using the BAAQMD's Stationary Source Screening Analysis Tool. The BAAQMD's Diesel Internal Combustion Engine Distance Multiplier Tool was used to refine the screening values associated with six of the fourteen stationary sources that operate diesel engines to represent the attenuated health risks that can be expected with increasing distance from the source of emissions. The screening values for two facilities that operate diesel engines (BAAQMD ID#20013 and ID#20095) were not provided within the BAAQMD stationary source tool.

The BAAQMD also recommends reviewing average annual daily traffic (AADT) counts estimated by the California Environmental Health Tracking Program (CEHTP) to identify major roads with an AADT volume greater than 10,000 vehicles per day. Based on the review of CEHTP traffic data[8], three major roadways with an AADT volume greater than 10,000 vehicles per day were identified within 1,000 feet of the MIR (Table 6 and Exhibit 3). The health risk screening values at the MIR from nearby major roadways were estimated using the BAAQMD's Roadway Screening Analysis Calculator[9].

In addition to existing TAC sources, there are seven proposed developments within 1,000 feet of the MIR that are either under construction or could be constructed in the near future, and future operations could potentially include maintenance and testing of a backup diesel generator. The impacts from these proposed projects were estimated using the same methodology as used to estimate the impacts from the project's backup emergency generator, namely the Diesel Internal Combustion Engine Distance Multiplier Tool.

The cumulative health risk results are summarized in Table 6. Note that the cancer risks estimated from the BAAQMD assessment tools (roadways and permitted stationary sources) are based on an older set of exposure parameters that do not reflect the current BAAQMD cancer risk parameters dealing with daily breathing rates, time at home factors, and exposure duration. The cancer risks estimated from the BAAQMD's assessment tools for these TAC emission sources, therefore, were increased by a value of 1.12 to incorporate the BAAQMD's newest cancer risk guidance. The scaling factor of 1.12 represents the ratio of the cancer risk estimated with the current BAAQMD cancer risk guidance to the previous BAAQMD cancer risk guidance (see Appendix F).

As noted from this table, the cumulative impacts from the project construction or operation and existing sources of TACs, major roadways, and reasonable foreseeable future sources of TACs would be less than the City's thresholds of significance.

[8] BAAQMD, 2012a. *Recommended Methods for Screening and Modeling Local Risks and Hazards*. May
[9] BAAQMD, 2015. Roadway Screening Analysis Calculator. 16 April.

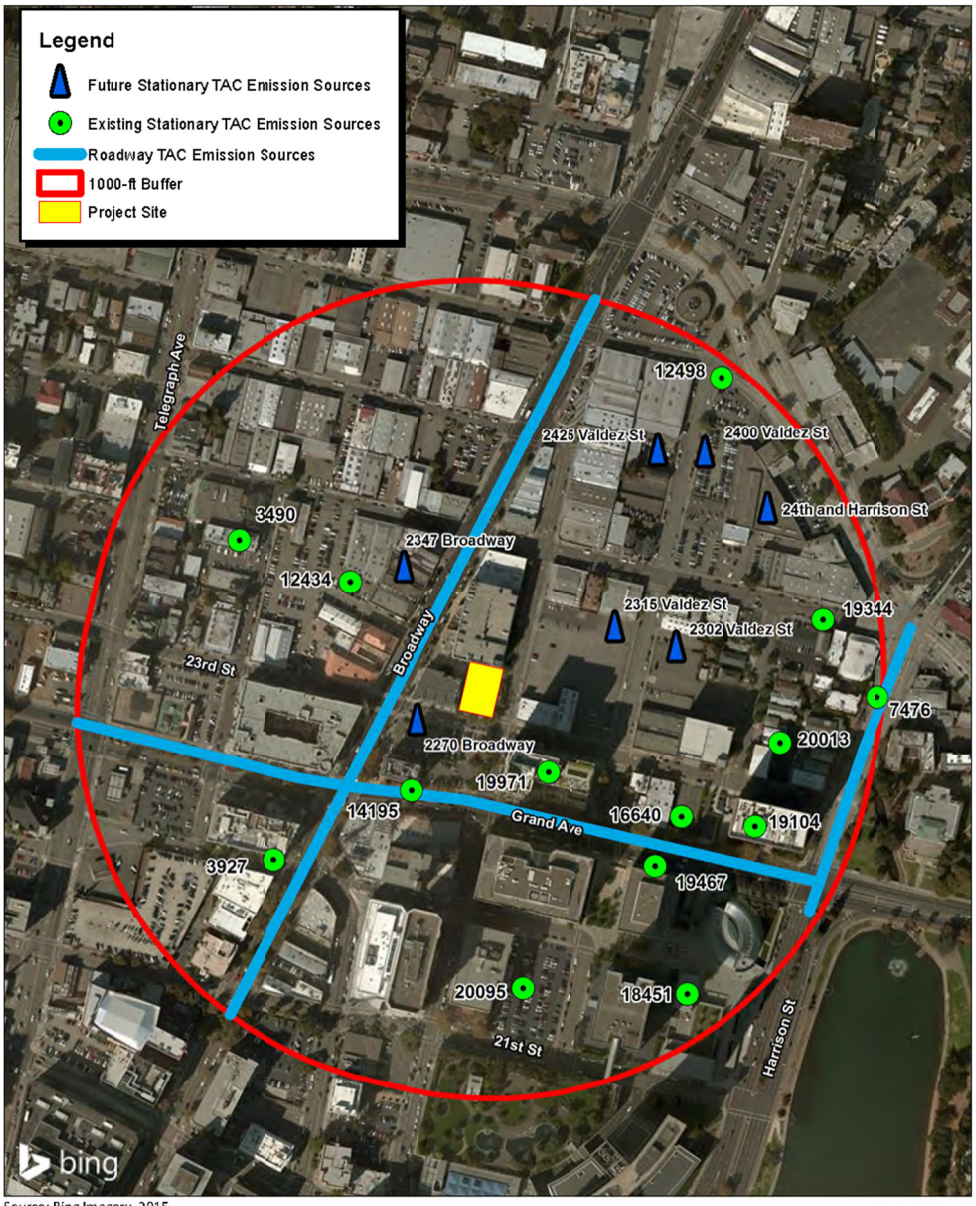
Table 6: Summary of the Cumulative Health Impacts at the MIR

Source	Source Type	Distance from MIR (feet)	Cancer Risk (per million)	Chronic HI	$PM_{2.5}$ Concentration ($\mu g/m^3$)
Project					
Construction[(1)]	Diesel Construction Equipment	25	4.2	0.003	0.02
Operation	Diesel Standby Generator	25	9.5	0.03	0.02
Future Backup Generators[(2)]					
2400 Valdez Street	Diesel Engine	923	0.4	0.001	0.001
2302 Valdez Street	Diesel Engine	619	1.0	0.003	0.002
2345 Broadway	Diesel Engine	391	2.0	0.006	0.003
2425 Valdez Street	Diesel Engine	637	1.0	0.003	0.002
24th and Harrison Streets	Diesel engine	903	0.6	0.002	0.001
2270 Broadway	Diesel Engine	115	7.2	0.023	0.011
2315 Valdez Street	Diesel Engine	495	1.3	0.004	0.002
Existing Stationary Sources (BAAQMD Facility Number)[(2)]					
Caltrans (14195)	Diesel Engine	264	17.2	0.006	0.030
Essex Portfolio (19971)	Diesel Engine	274	5.1	0.002	0.001
CalSTRS (16640)	Diesel Engine	591	2.7	0.001	0.004
Brandywine Realty Trust (19467)	Diesel Engine	670	1.7	0.001	0.000
Insite Connect, LLC (19104)	Diesel Engine	879	1.1	0.000	0.002
Mpower Communications (20013))	Diesel Engine	868	ND	ND	ND
Autotrends (15482)	Not Reported	760	0.0	0.0	0.0
Q & S Automotive (12434)	Not Reported	393	0.0	0.0	0.0
Label Art (7476)	Not Reported	1,142	0.0	0.0	0.0
VIP Auto Collision Repair (19344)	Not Reported	992	0.0	0.0	0.0
Johnson Plating Works (3490)	Not Reported	697	0.0	0.0	0.0
Hanzel Autobody Works (3927)	Not Reported	631	0.0	0.0	0.0
CIM Group (20095)	Diesel Engine	801	ND	ND	ND
Catholic Catherdral (18451)	Diesel Engine	1,000	0.0	0.000	0.000
Major Roadways (More than 10,000 AADT) [(2)]					
Broadway (30,200 AADT)	Roadway	129	13.6	ND	0,24
Grand Avenue (24,800 AADT)	Roadway	278	6.3	ND	0.10
Harrison Street (22,800 AADT)	Roadway	1,065	1.0	ND	0.02
Cumulative Health Risks					
Cumulative Total with Project Construction			66.4	0.056	0.44
City of Oakland's Cumulative Thresholds of Significance			100	10	0.8
Threshold Exceedance?			No	No	No
Cumulative Total with Project Operation			71.7	0.08	0.44
City of Oakland's Cumulative Thresholds of Significance			100	10	0.8
Threshold Exceedance?			No	No	No

Notes:
[(1)] Project construction impacts after application of mitigation and standard conditions of approval

(2) Cancer risks reflect the current BAAQMD cancer risk guidance
ND = no data available
AADT = annual average daily traffic
Source: see Appendix E

Exhibit 3: Location of Cumulative Sources



Source: Bing Imagery, 2015

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360 180 0 360 Feet

Exhibit 4
Location of Cumulative
TAC Emission Sources

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SEGULA INVESTMENTS, INC. • 2035 WEBSTER STREET PROJECT
HEALTH RISK ASSESSMENT

Appendix A:
City of Oakland Standard Conditions of Acceptance and BVDSP Mitigation Measures

Standard Conditions of Approval/Mitigation Measures: Dust and Equipment Emissions

SCA-AIR-1 (SCA 19): Construction-Related Air Pollution Controls (Dust and Equipment Emissions)

a) Water all exposed surfaces of active construction areas at least twice daily. Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever feasible.

b) Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer).

c) All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

d) Pave all roadways, driveways, sidewalks, etc. 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.

e) Enclose, cover, water twice daily, or apply (nontoxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.).

f) Limit vehicle speeds on unpaved roads to 15 miles per hour.

g) 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.

h) 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").

i) 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.

j) 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.

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.

l) All excavation, grading, and demolition activities shall be suspended when average wind speeds exceed 20 mph.

m) Install sandbags or other erosion control measures to prevent silt runoff to public roadways.

n) Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for one month or more).

o) Designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust off-site. Their duties shall include holidays and weekend periods when work may not be in progress.

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.

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.

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.

s) All trucks and equipment, including tires, shall be washed off prior to leaving the site.

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.

SCA-AIR-1 (SCA 19): Construction-Related Air Pollution Controls (Dust and Equipment Emissions)
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. v) Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., BAAQMD Regulation 8, Rule 3: Architectural Coatings). w) All construction equipment, diesel trucks, and generators shall be equipped with Best Available Control Technology for emission reductions of NO_x and PM. x) Off-road heavy diesel engines shall meet the California Air Resources Board's most recent certification standard. 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.

Project Standard Conditions of Approval/Mitigation Measures – Exposures to Toxics Air Contaminants

SCA-AIR-2 (SCA 20): Exposure to Air Pollution (Toxic Air Contaminants)

a) Health Risk Reduction Measures

The project applicant shall incorporate appropriate measures into the project design in order to reduce the potential health risk due to exposure to TACs. The project applicant shall choose one of the following methods:

i. The project applicant shall retain a qualified air quality consultant to prepare a Health Risk Assessment (HRA) in accordance with California Air Resources Board (CARB) and Office of Environmental Health and Hazard Assessment requirements to determine the health risk of exposure of project residents/occupants/users to air pollutants. The HRA shall be submitted to the City for review and approval. If the HRA concludes that the health risk is at or below acceptable levels, then health risk reduction measures are not required. If the HRA concludes that the health risk exceeds acceptable levels, health risk reduction measures shall be identified to reduce the health risk to acceptable levels. Identified risk reduction measures shall be submitted to the City for review and approval and be included on the project drawings submitted for the construction-related permit or on other documentation submitted to the City. - or –

ii. The project applicant shall incorporate the following health risk reduction measures into the project. These features shall be submitted to the City for review and approval and be included on the project drawings submitted for the construction-related permit or on other documentation submitted to the City:

- Installation of air filtration to reduce cancer risks and Particulate Matter (PM) exposure for residents and other sensitive populations in the project that are in close proximity to sources of air pollution. Air filter devices shall be rated MERV-13 or higher. As part of implementing this measure, an ongoing maintenance plan for the building's HVAC air filtration system shall be required.
- Where appropriate, install passive electrostatic filtering systems, especially those with low air velocities (i.e., 1 mph).
- Phasing of residential developments when proposed within 500 feet of freeways such that homes nearest the freeway are built last, if feasible.
- The project shall be designed to locate sensitive receptors as far away as feasible from the source(s) of air pollution. Operable windows, balconies, and building air intakes shall be located as far away from these sources as feasible. If near a distribution center, residents shall be located as far away as feasible from a loading dock or where trucks concentrate to deliver goods.
- Sensitive receptors shall be located on the upper floors of buildings, if feasible.
- Planting trees and/or vegetation between sensitive receptors and pollution source, if feasible. Trees that are best suited to trapping PM shall be planted, including one or more of the following: Pine (Pinus nigra var. maritima), Cypress (X Cupressocyparis leylandii), Hybrid popular (Populus deltoids X trichocarpa), and Redwood (Sequoia sempervirens).
- Sensitive receptors shall be located as far away from truck activity areas, such as loading docks and delivery areas, as feasible.
- Existing and new diesel generators shall meet CARB's Tier 4 emission standards, if feasible.
- • Emissions from diesel trucks shall be reduced through implementing the following measures, if feasible:

SCA-AIR-2 (SCA 20): Exposure to Air Pollution (Toxic Air Contaminants)

- − Installing electrical hook-ups for diesel trucks at loading docks.
- − Requiring trucks to use Transportation Refrigeration Units (TRU) that meet Tier 4 emission standards.
- − Requiring truck-intensive projects to use advanced exhaust technology (e.g., hybrid) or alternative fuels.
- − Prohibiting trucks from idling for more than two minutes.
- − Establishing truck routes to avoid sensitive receptors in the project. A truck route program, along with truck calming, parking, and delivery restrictions, shall be implemented.

b. Maintenance of Health Risk Reduction Measures

Requirement: The project applicant shall maintain, repair, and/or replace installed health risk reduction measures, including but not limited to the HVAC system (if applicable), on an ongoing and as-needed basis. Prior to occupancy, the project applicant shall prepare and then distribute to the building manager/operator an operation and maintenance manual for the HVAC system and filter including the maintenance and replacement schedule for the filter.

SCA-AIR-3 (SCA 21): Stationary Sources of Air Pollution (Toxics Air contaminants

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. The project applicant shall choose one of the following methods:

a) The project applicant shall retain a qualified air quality consultant to prepare a Health Risk Assessment (HRA) in accordance with California Air Resources Board (CARB) and Office of Environmental Health and Hazard Assessment requirements to determine the health risk associated with proposed stationary sources of pollution in the project. The HRA shall be submitted to the City for review and approval. If the HRA concludes that the health risk is at or below acceptable levels, then health riskreduction measures are not required. If the HRA concludes the health risk exceeds acceptable levels, health risk reduction measures shall be identified to reduce the health risk to acceptable levels. Identified risk reduction measures shall be submitted to the City for review and approval and be included on the project drawings submitted for the construction-related permit or on other documentation submitted to the City. - or

b) The project applicant shall incorporate the following health risk reduction measures into the project. These features shall be

submitted to the City for review and approval and be included on the project drawings submitted for the construction-related permit or on other documentation submitted to the City:

i. Installation of non-diesel fueled generators, if feasible, or;

ii. Installation of diesel generators with an EPA-certified Tier 4 engine or engines that are retrofitted with a CARB Level 3 Verified Diesel Emissions Control Strategy, if feasible.

Project Construction Standard Conditions of Approval/Mitigation Measures

SCA-AIR-2 (SCA 21): Stationary Sources of Air Pollution (Toxic Air Contaminants)

a) Health Risk Reduction Measures

The project applicant shall incorporate appropriate measures into the project design in order to reduce the potential health risk due to exposure to TACs. The project applicant shall choose one of the following methods:

iii. The project applicant shall retain a qualified air quality consultant to prepare a Health Risk Assessment (HRA) in accordance with California Air Resources Board (CARB) and Office of Environmental Health and Hazard Assessment requirements to determine the health risk of exposure of project residents/occupants/users to air pollutants. The HRA shall be submitted to the City for review and approval. If the HRA concludes that the health risk is at or below acceptable levels, then health risk reduction measures are not required. If the HRA concludes that the health risk exceeds acceptable levels, health risk reduction measures shall be identified to reduce the health risk to acceptable levels. Identified risk reduction measures shall be submitted to the City for review and approval and be included on the project drawings submitted for the construction-related permit or on other documentation submitted to the City. - or –

iv. The project applicant shall incorporate the following health risk reduction measures into the project. These features shall be submitted to the City for review and approval and be included on the project drawings submitted for the construction-related permit or on other documentation submitted to the City:

a. Installation of air filtration to reduce cancer risks and Particulate Matter (PM) exposure for residents and other sensitive populations in the project that are in close proximity to sources of air pollution. Air filter devices shall be rated MERV-13 or higher. As part of implementing this measure, an ongoing maintenance plan for the building's HVAC air filtration system shall be required.

b. Where appropriate, install passive electrostatic filtering systems, especially those with low air velocities (i.e., 1 mph).

c. Phasing of residential developments when proposed within 500 feet of freeways such that homes nearest the freeway are built last, if feasible.

d. The project shall be designed to locate sensitive receptors as far away as feasible from the source(s) of air pollution. Operable windows, balconies, and building air intakes shall be located as far away from these sources as feasible. If near a distribution center, residents shall be located as far away as feasible from a loading dock or where trucks concentrate to deliver goods.

e. Sensitive receptors shall be located on the upper floors of buildings, if feasible.

f. Planting trees and/or vegetation between sensitive receptors and pollution source, if feasible. Trees that are best suited to trapping PM shall be planted, including one or more of the following: Pine (Pinus nigra var. maritima), Cypress (X Cupressocyparis leylandii), Hybrid popular (Populus deltoids X trichocarpa), and Redwood (Sequoia sempervirens).

g. Sensitive receptors shall be located as far away from truck activity areas, such as loading docks and delivery areas, as feasible.

h. Existing and new diesel generators shall meet CARB's Tier 4 emission standards, if feasible.

SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL AND RESIDUAL EFFECTS

Environmental Impact	Standard Conditions of Approval and Mitigation Measures	Level of Significance after application of Mitigation
Air Quality		
Impact AIR-1: Construction associated with adoption and development under the Specific Plan would result in average daily emissions of 54 pounds per day of ROG, NO_X, or $PM_{2.5}$ or 82 pounds per day of PM_{10} (Criterion 1). (Conservatively Significant and Unavoidable)	**Standard Condition of Approval A:** *Construction-Related Air Pollution Controls (Dust and Equipment Emissions)* **Recommended Measure AIR-1:** During construction, the project applicant shall require the construction contractor to use prefinished materials and colored stucco, as feasible.	Conservatively Significant and Unavoidable
Impact AIR-2: Adoption and development under the Specific Plan would result in operational average daily emissions of more than 54 pounds per day of ROG, NO_X, or $PM_{2.5}$ or 82 pounds per day of PM_{10}; or result in maximum annual emissions of 10 tons per year of ROG, NO_X, or $PM_{2.5}$ or 15 tons per year of PM_{10} (Criterion 2). (Conservatively Significant and Unavoidable)	**Standard Condition of Approval 25:** *Parking and Transportation Demand Management* **Recommended Measure AIR-2:** The following measures identified in the 2012 BAAQMD CEQA Guidelines for specific development projects in excess of 50,000 square feet or 325 dwelling units are recommended to be considered and if determined feasible, implemented for those projects: • Establish a dedicated employee transportation coordinator for each specific development as a condition of occupancy permit/tenancy contract; • Increase building energy efficiency by 20 percent beyond 2008 Title 24 (reduces NOX related to natural gas combustion); • Require use of electrically powered landscape equipment; • Require only natural gas hearths in residential units as a condition of final building permit; • Use low VOC architectural coatings in maintaining buildings; • Require smart meters and programmable thermostats; and • Install solar water heaters for all uses.	Conservatively Significant and Unavoidable
Impact AIR-3: Adoption and development under the Specific Plan would not contribute to carbon monoxide (CO) concentrations exceeding the California Ambient Air Quality Standards (CAAQS) of nine parts per million (ppm) averaged over eight hours and 20 ppm for one hour (Criterion 3). (Less than Significant)	None Required	Less than Significant
Impact AIR-4: Adoption and development under the Specific Plan could generate substantial levels of Toxic Air Contaminants (TACs) resulting in (a) a cancer risk level greater than 10 in one million, (b) a non-cancer risk (chronic or acute) hazard index greater than 1.0, or (c) an increase of annual average $PM_{2.5}$ concentration of greater than 0.3 micrograms per cubic meter or, under cumulative conditions, resulting in (a) a cancer risk level greater than 100 in a million, (b) a non-cancer risk (chronic or acute) hazard index greater than 10.0, or (c) annual average $PM_{2.5}$ of greater than 0.8 micrograms per cubic meter as a result of construction activities or project operations (Criterion 4). (Conservatively Significant and Unavoidable)	**Standard Condition of Approval A:** *Construction-Related Air Pollution Controls (Dust and Equipment Emissions)* **Mitigation Measure AIR-4:** *Risk Reduction Plan* Applicants for projects that would include backup generators shall prepare and submit to the City, a Risk Reduction Plan for City review and approval. The applicant shall implement the approved plan. This Plan shall reduce cumulative localized cancer risks to the maximum feasible extent. The Risk Reduction Plan may contain, but is not limited to the following strategies:	Conservatively Significant and Unavoidable

SUMMARY OF IMPACTS, MITIGATION MEASURES, STANDARD CONDITIONS OF APPROVAL AND RESIDUAL EFFECTS

Environmental Impact	Standard Conditions of Approval and Mitigation Measures	Level of Significance after application of Mitigation
Air Quality (cont.)		
Impact AIR-4 (cont.)	• Demonstration using screening analysis or a health risk assessment that project sources, when combined with local cancer risks from cumulative sources with 1,000 feet would be less than 100 in one million. • Installation of non-diesel fueled generators. • Installation of diesel generators with an EPA-certified Tier 4 engine or Engines that are retrofitted with an ARB Level 3 Verified Diesel Emissions Control Strategy.	
Impact AIR-5: Adoption and development under the Specific Plan would not expose sensitive receptors to substantial levels of Toxic Air Contaminants (TACs) resulting in (a) a cancer risk level greater than 100 in one million, (b) a non-cancer risk (chronic or acute) hazard index greater than 10.0, or (c) an increase of annual average $PM_{2.5}$ concentration of greater than 0.8 micrograms per cubic meter by siting a new sensitive receptor (Criterion 5). (Less than Significant)	**Standard Condition of Approval B:** *Exposure to Air Pollution (Toxic Air Contaminants)*	Less than Significant
Impact AIR-6: Adoption and development under the Specific Plan would not frequently and for a substantial duration, create or expose sensitive receptors to substantial objectionable odors affecting a substantial number of people (Criterion 6). (Less than Significant)	None Required	Less than Significant
Impact AIR-7: Adoption and development under the Specific Plan would be consistent with the primary goals of the Bay Area Clean Air Plan (CAP) and would not fundamentally conflict with the CAP because the Specific Plan demonstrates reasonable efforts to implement control measures contained in the CAP (Criterion 7). (Less than Significant)	**Standard Condition of Approval 25:** *Parking and Transportation Demand Management*	Less than Significant
Impact AIR-8: Adoption and development under the Specific Plan would include special overlay zones containing goals, policies, and objectives to minimize potential Toxic Air Contaminant (TAC) impacts in areas located (a) near existing and planned sources of TACs and (b) within 500 feet of freeways and high-volume roadways containing 100,000 or more average daily vehicle trips (Criterion 8). (Less than Significant)	**Standard Condition of Approval B:** *Exposure to Air Pollution (Toxic Air Contaminants)*	Less than Significant
Impact AIR-9: Adoption and development under the Specific Plan would not identify existing and planned sources of odors with policies to reduce potential odor impacts (Criterion 9). (Less than Significant)	None Required	Less than Significant

Appendix B:
CalEEMod Land Use Model Output for Unmitigated and Mitigated DPM Exhaust Emissions

CalEEMod Output

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4886.0001 Webster St.

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	84.00	Space	0.76	33,600.00	0
Health Club	8.74	1000sqft	0.00	8,740.00	0
Apartments High Rise	130.00	Dwelling Unit	0.30	130,000.00	372
Strip Mall	2.89	1000sqft	0.00	2,890.00	0
Strip Mall	3.93	1000sqft	0.00	3,930.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics -

Land Use - new PD states the project would have 84 parking lots, 130 dewlling units, and 2.89ksf retail.

Construction Phase - Based on CalEEMod defaults and 24th construction assumption

Grading - Project site is 0.3 acre

Demolition -

Vehicle Trips - From traffic study

Woodstoves - .

Construction Off-road Equipment Mitigation - .

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
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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
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	10.00	22.00
tblConstructionPhase	NumDays	200.00	430.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	4.00	9.00
tblConstructionPhase	NumDays	10.00	22.00
tblConstructionPhase	NumDays	2.00	5.00
tblConstructionPhase	PhaseEndDate	1/14/2019	1/1/2020
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tblConstructionPhase	PhaseEndDate	3/2/2018	2/16/2018
tblConstructionPhase	PhaseEndDate	3/12/2018	3/8/2018
tblConstructionPhase	PhaseEndDate	12/31/2018	12/2/2019
tblConstructionPhase	PhaseEndDate	3/6/2018	2/23/2018
tblConstructionPhase	PhaseStartDate	1/1/2019	12/3/2019
tblConstructionPhase	PhaseStartDate	3/13/2018	3/9/2018
tblConstructionPhase	PhaseStartDate	3/7/2018	2/24/2018
tblConstructionPhase	PhaseStartDate	12/18/2018	11/1/2019
tblConstructionPhase	PhaseStartDate	3/3/2018	2/17/2018

tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	19.50	62.00
tblFireplaces	NumberNoFireplace	5.20	62.00
tblFireplaces	NumberWood	22.10	0.00
tblGrading	AcresOfGrading	3.38	0.30
tblGrading	AcresOfGrading	2.50	0.30
tblGrading	MaterialExported	0.00	1,481.00
tblLandUse	LotAcreage	0.20	0.00
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tblLandUse	LotAcreage	0.07	0.00
tblLandUse	LotAcreage	0.09	0.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblVehicleTrips	ST_TR	4.98	3.99
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	42.04	10.69
tblVehicleTrips	SU_TR	3.65	3.99
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	20.43	10.69
tblVehicleTrips	WD_TR	4.20	3.99
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	44.32	10.69
tblWoodstoves	NumberCatalytic	2.60	0.00
tblWoodstoves	NumberNoncatalytic	2.60	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

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					
2018	0.3625	2.4984	2.0773	4.3400e-003	0.1586	0.1284	0.2870	0.0508	0.1235	0.1743	0.0000	380.6250	380.6250	0.0525	0.0000	381.9384
2019	1.2774	2.2057	2.0288	4.2800e-003	0.1170	0.1096	0.2266	0.0315	0.1056	0.1371	0.0000	372.2427	372.2427	0.0493	0.0000	373.4746
2020	0.0458	8.7000e-004	1.2200e-003	0.0000	9.0000e-005	6.0000e-005	1.5000e-004	2.0000e-005	6.0000e-005	8.0000e-005	0.0000	0.2085	0.2085	1.0000e-005	0.0000	0.2088
Maximum	**1.2774**	**2.4984**	**2.0773**	**4.3400e-003**	**0.1586**	**0.1284**	**0.2870**	**0.0508**	**0.1235**	**0.1743**	**0.0000**	**380.6250**	**380.6250**	**0.0525**	**0.0000**	**381.9384**

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					
2018	0.0979	0.8058	1.9988	4.3400e-003	0.1586	6.6900e-003	0.1653	0.0508	6.5400e-003	0.0573	0.0000	380.6247	380.6247	0.0525	0.0000	381.9381
2019	1.0510	0.7573	1.9996	4.2800e-003	0.1170	6.2600e-003	0.1233	0.0315	6.1200e-003	0.0376	0.0000	372.2424	372.2424	0.0493	0.0000	373.4744
2020	0.0457	9.0000e-005	1.2200e-003	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	3.0000e-005	0.0000	0.2085	0.2085	1.0000e-005	0.0000	0.2088
Maximum	**1.0510**	**0.8058**	**1.9996**	**4.3400e-003**	**0.1586**	**6.6900e-003**	**0.1653**	**0.0508**	**6.5400e-003**	**0.0573**	**0.0000**	**380.6247**	**380.6247**	**0.0525**	**0.0000**	**381.9381**

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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	N20	CO2e
Percent Reduction	**29.14**	**66.78**	**2.62**	**0.00**	**0.00**	**94.56**	**43.81**	**0.00**	**94.47**	**69.50**	**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	**2-5-2018**	**5-4-2018**	0.7913	0.2212
2	**5-5-2018**	**8-4-2018**	0.7849	0.2587
3	**8-5-2018**	**11-4-2018**	0.7867	0.2605
4	**11-5-2018**	**2-4-2019**	0.7643	0.2602
5	**2-5-2019**	**5-4-2019**	0.6978	0.2449
6	**5-5-2019**	**8-4-2019**	0.7187	0.2506
7	**8-5-2019**	**11-4-2019**	0.7034	0.2425
8	**11-5-2019**	**2-4-2020**	1.1032	0.9902
		Highest	1.1032	0.9902

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	0.7013	0.0179	0.9722	9.0000e-005		5.8700e-003	5.8700e-003		5.8700e-003	5.8700e-003	0.0000	9.3186	9.3186	1.6900e-003	1.4000e-004	9.4031
Energy	9.3600e-003	0.0807	0.0394	5.1000e-004		6.4700e-003	6.4700e-003		6.4700e-003	6.4700e-003	0.0000	370.3216	370.3216	0.0143	4.3000e-003	371.9601
Mobile	0.2043	1.2986	2.1835	7.2700e-003	0.4966	8.8000e-003	0.5054	0.1343	8.3100e-003	0.1426	0.0000	669.0066	669.0066	0.0315	0.0000	669.7935
Waste						0.0000	0.0000		0.0000	0.0000	23.7053	0.0000	23.7053	1.4009	0.0000	58.7288
Water						0.0000	0.0000		0.0000	0.0000	3.0114	21.0165	24.0279	0.3103	7.5000e-003	34.0191
Total	**0.9150**	**1.3972**	**3.1952**	**7.8700e-003**	**0.4966**	**0.0211**	**0.5177**	**0.1343**	**0.0207**	**0.1550**	**26.7167**	**1,069.6633**	**1,096.3799**	**1.7587**	**0.0119**	**1,143.9046**

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	0.7013	0.0179	0.9722	9.0000e-005		5.8700e-003	5.8700e-003		5.8700e-003	5.8700e-003	0.0000	9.3186	9.3186	1.6900e-003	1.4000e-004	9.4031
Energy	9.3600e-003	0.0807	0.0394	5.1000e-004		6.4700e-003	6.4700e-003		6.4700e-003	6.4700e-003	0.0000	370.3216	370.3216	0.0143	4.3000e-003	371.9601
Mobile	0.2043	1.2986	2.1835	7.2700e-003	0.4966	8.8000e-003	0.5054	0.1343	8.3100e-003	0.1426	0.0000	669.0066	669.0066	0.0315	0.0000	669.7935
Waste						0.0000	0.0000		0.0000	0.0000	23.7053	0.0000	23.7053	1.4009	0.0000	58.7288
Water						0.0000	0.0000		0.0000	0.0000	3.0114	21.0165	24.0279	0.3103	7.5000e-003	34.0191
Total	**0.9150**	**1.3972**	**3.1952**	**7.8700e-003**	**0.4966**	**0.0211**	**0.5177**	**0.1343**	**0.0207**	**0.1550**	**26.7167**	**1,069.6633**	**1,096.3799**	**1.7587**	**0.0119**	**1,143.9046**

	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	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/5/2018	2/16/2018	5	10	
2	Site Preparation	Site Preparation	2/17/2018	2/23/2018	5	5	
3	Grading	Grading	2/24/2018	3/8/2018	5	9	
4	Building Construction	Building Construction	3/9/2018	10/31/2019	5	430	
5	Paving	Paving	11/1/2019	12/2/2019	5	22	
6	Architectural Coating	Architectural Coating	12/3/2019	1/1/2020	5	22	

Acres of Grading (Site Preparation Phase): 0.3

Acres of Grading (Grading Phase): 0.3

Acres of Paving: 0.76

Residential Indoor: 263,250; Residential Outdoor: 87,750; Non-Residential Indoor: 23,340; Non-Residential Outdoor: 7,780; Striped Parking Area: 2,016 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Building Construction	Welders	3	8.00	46	0.45

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
Architectural Coating	1	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	114.00	22.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	13.00	0.00	97.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	185.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Clean Paved Roads

3.2 Demolition - 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					
Fugitive Dust					0.0105	0.0000	0.0105	1.5900e-003	0.0000	1.5900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0124	0.1218	0.0756	1.2000e-004		7.1800e-003	7.1800e-003		6.7100e-003	6.7100e-003	0.0000	10.8462	10.8462	2.7500e-003	0.0000	10.9148
Total	**0.0124**	**0.1218**	**0.0756**	**1.2000e-004**	**0.0105**	**7.1800e-003**	**0.0177**	**1.5900e-003**	**6.7100e-003**	**8.3000e-003**	**0.0000**	**10.8462**	**10.8462**	**2.7500e-003**	**0.0000**	**10.9148**

3.2 Demolition - 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	4.6000e-004	0.0159	2.6300e-003	4.0000e-005	8.2000e-004	6.0000e-005	8.8000e-004	2.3000e-004	6.0000e-005	2.8000e-004	0.0000	3.7905	3.7905	2.0000e-004	0.0000	3.7955
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	2.7000e-004	2.1000e-004	2.1300e-003	1.0000e-005	5.1000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4856	0.4856	2.0000e-005	0.0000	0.4860
Total	**7.3000e-004**	**0.0161**	**4.7600e-003**	**5.0000e-005**	**1.3300e-003**	**6.0000e-005**	**1.4000e-003**	**3.7000e-004**	**6.0000e-005**	**4.2000e-004**	**0.0000**	**4.2762**	**4.2762**	**2.2000e-004**	**0.0000**	**4.2815**

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					0.0105	0.0000	0.0105	1.5900e-003	0.0000	1.5900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4100e-003	6.0900e-003	0.0736	1.2000e-004		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	10.8461	10.8461	2.7500e-003	0.0000	10.9148
Total	**1.4100e-003**	**6.0900e-003**	**0.0736**	**1.2000e-004**	**0.0105**	**1.9000e-004**	**0.0107**	**1.5900e-003**	**1.9000e-004**	**1.7800e-003**	**0.0000**	**10.8461**	**10.8461**	**2.7500e-003**	**0.0000**	**10.9148**

3.2 Demolition - 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	4.6000e-004	0.0159	2.6300e-003	4.0000e-005	8.2000e-004	6.0000e-005	8.8000e-004	2.3000e-004	6.0000e-005	2.8000e-004	0.0000	3.7905	3.7905	2.0000e-004	0.0000	3.7955
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	2.7000e-004	2.1000e-004	2.1300e-003	1.0000e-005	5.1000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4856	0.4856	2.0000e-005	0.0000	0.4860
Total	**7.3000e-004**	**0.0161**	**4.7600e-003**	**5.0000e-005**	**1.3300e-003**	**6.0000e-005**	**1.4000e-003**	**3.7000e-004**	**6.0000e-005**	**4.2000e-004**	**0.0000**	**4.2762**	**4.2762**	**2.2000e-004**	**0.0000**	**4.2815**

3.3 Site Preparation - 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					
Fugitive Dust					0.0134	0.0000	0.0134	7.2700e-003	0.0000	7.2700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5200e-003	0.0519	0.0202	4.0000e-005		2.3800e-003	2.3800e-003		2.1900e-003	2.1900e-003	0.0000	3.9357	3.9357	1.2300e-003	0.0000	3.9664
Total	**4.5200e-003**	**0.0519**	**0.0202**	**4.0000e-005**	**0.0134**	**2.3800e-003**	**0.0158**	**7.2700e-003**	**2.1900e-003**	**9.4600e-003**	**0.0000**	**3.9357**	**3.9357**	**1.2300e-003**	**0.0000**	**3.9664**

3.3 Site Preparation - 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	8.8000e-004	0.0302	5.0100e-003	8.0000e-005	1.5700e-003	1.1000e-004	1.6800e-003	4.3000e-004	1.1000e-004	5.4000e-004	0.0000	7.2293	7.2293	3.8000e-004	0.0000	7.2388
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	8.0000e-005	7.0000e-005	6.6000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1494	0.1494	0.0000	0.0000	0.1495
Total	**9.6000e-004**	**0.0303**	**5.6700e-003**	**8.0000e-005**	**1.7300e-003**	**1.1000e-004**	**1.8400e-003**	**4.7000e-004**	**1.1000e-004**	**5.8000e-004**	**0.0000**	**7.3788**	**7.3788**	**3.8000e-004**	**0.0000**	**7.3884**

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					0.0134	0.0000	0.0134	7.2700e-003	0.0000	7.2700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.3000e-004	2.2800e-003	0.0217	4.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	3.9357	3.9357	1.2300e-003	0.0000	3.9664
Total	**5.3000e-004**	**2.2800e-003**	**0.0217**	**4.0000e-005**	**0.0134**	**7.0000e-005**	**0.0135**	**7.2700e-003**	**7.0000e-005**	**7.3400e-003**	**0.0000**	**3.9357**	**3.9357**	**1.2300e-003**	**0.0000**	**3.9664**

3.3 Site Preparation - 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	8.8000e-004	0.0302	5.0100e-003	8.0000e-005	1.5700e-003	1.1000e-004	1.6800e-003	4.3000e-004	1.1000e-004	5.4000e-004	0.0000	7.2293	7.2293	3.8000e-004	0.0000	7.2388
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	8.0000e-005	7.0000e-005	6.6000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1494	0.1494	0.0000	0.0000	0.1495
Total	**9.6000e-004**	**0.0303**	**5.6700e-003**	**8.0000e-005**	**1.7300e-003**	**1.1000e-004**	**1.8400e-003**	**4.7000e-004**	**1.1000e-004**	**5.8000e-004**	**0.0000**	**7.3788**	**7.3788**	**3.8000e-004**	**0.0000**	**7.3884**

3.4 Grading - 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					
Fugitive Dust					0.0205	0.0000	0.0205	0.0112	0.0000	0.0112	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.7400e-003	0.0768	0.0304	6.0000e-005		3.5800e-003	3.5800e-003		3.2900e-003	3.2900e-003	0.0000	5.8021	5.8021	1.8100e-003	0.0000	5.8472
Total	**6.7400e-003**	**0.0768**	**0.0304**	**6.0000e-005**	**0.0205**	**3.5800e-003**	**0.0241**	**0.0112**	**3.2900e-003**	**0.0145**	**0.0000**	**5.8021**	**5.8021**	**1.8100e-003**	**0.0000**	**5.8472**

3.4 Grading - 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	0.0000	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	1.5000e-004	1.2000e-004	1.1800e-003	0.0000	2.8000e-004	0.0000	2.9000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2690	0.2690	1.0000e-005	0.0000	0.2692
Total	**1.5000e-004**	**1.2000e-004**	**1.1800e-003**	**0.0000**	**2.8000e-004**	**0.0000**	**2.9000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2690**	**0.2690**	**1.0000e-005**	**0.0000**	**0.2692**

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					0.0205	0.0000	0.0205	0.0112	0.0000	0.0112	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.8000e-004	3.3600e-003	0.0322	6.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	5.8021	5.8021	1.8100e-003	0.0000	5.8472
Total	**7.8000e-004**	**3.3600e-003**	**0.0322**	**6.0000e-005**	**0.0205**	**1.0000e-004**	**0.0206**	**0.0112**	**1.0000e-004**	**0.0113**	**0.0000**	**5.8021**	**5.8021**	**1.8100e-003**	**0.0000**	**5.8472**

3.4 Grading - 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	0.0000	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	1.5000e-004	1.2000e-004	1.1800e-003	0.0000	2.8000e-004	0.0000	2.9000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2690	0.2690	1.0000e-005	0.0000	0.2692
Total	**1.5000e-004**	**1.2000e-004**	**1.1800e-003**	**0.0000**	**2.8000e-004**	**0.0000**	**2.9000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2690**	**0.2690**	**1.0000e-005**	**0.0000**	**0.2692**

3.5 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	0.2747	1.8474	1.4709	2.3400e-003		0.1122	0.1122		0.1083	0.1083	0.0000	195.2887	195.2887	0.0393	0.0000	196.2715
Total	**0.2747**	**1.8474**	**1.4709**	**2.3400e-003**		**0.1122**	**0.1122**		**0.1083**	**0.1083**	**0.0000**	**195.2887**	**195.2887**	**0.0393**	**0.0000**	**196.2715**

3.5 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	0.0116	0.3144	0.0718	6.5000e-004	0.0153	2.2400e-003	0.0176	4.4300e-003	2.1500e-003	6.5800e-003	0.0000	62.5443	62.5443	4.0000e-003	0.0000	62.6444
Worker	0.0506	0.0398	0.3968	1.0000e-003	0.0955	7.0000e-004	0.0962	0.0254	6.4000e-004	0.0261	0.0000	90.2842	90.2842	2.8300e-003	0.0000	90.3550
Total	**0.0622**	**0.3541**	**0.4686**	**1.6500e-003**	**0.1109**	**2.9400e-003**	**0.1138**	**0.0299**	**2.7900e-003**	**0.0326**	**0.0000**	**152.8285**	**152.8285**	**6.8300e-003**	**0.0000**	**152.9994**

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	0.0311	0.3935	1.3912	2.3400e-003		3.2100e-003	3.2100e-003		3.2100e-003	3.2100e-003	0.0000	195.2885	195.2885	0.0393	0.0000	196.2713
Total	**0.0311**	**0.3935**	**1.3912**	**2.3400e-003**		**3.2100e-003**	**3.2100e-003**		**3.2100e-003**	**3.2100e-003**	**0.0000**	**195.2885**	**195.2885**	**0.0393**	**0.0000**	**196.2713**

3.5 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	0.0116	0.3144	0.0718	6.5000e-004	0.0153	2.2400e-003	0.0176	4.4300e-003	2.1500e-003	6.5800e-003	0.0000	62.5443	62.5443	4.0000e-003	0.0000	62.6444
Worker	0.0506	0.0398	0.3968	1.0000e-003	0.0955	7.0000e-004	0.0962	0.0254	6.4000e-004	0.0261	0.0000	90.2842	90.2842	2.8300e-003	0.0000	90.3550
Total	**0.0622**	**0.3541**	**0.4686**	**1.6500e-003**	**0.1109**	**2.9400e-003**	**0.1138**	**0.0299**	**2.7900e-003**	**0.0326**	**0.0000**	**152.8285**	**152.8285**	**6.8300e-003**	**0.0000**	**152.9994**

3.5 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	0.2477	1.7418	1.4701	2.4000e-003		0.0998	0.0998		0.0964	0.0964	0.0000	199.5484	199.5484	0.0384	0.0000	200.5074
Total	**0.2477**	**1.7418**	**1.4701**	**2.4000e-003**		**0.0998**	**0.0998**		**0.0964**	**0.0964**	**0.0000**	**199.5484**	**199.5484**	**0.0384**	**0.0000**	**200.5074**

3.5 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	0.0108	0.3067	0.0678	6.7000e-004	0.0158	1.9600e-003	0.0177	4.5600e-003	1.8700e-003	6.4300e-003	0.0000	63.8767	63.8767	3.9400e-003	0.0000	63.9751
Worker	0.0470	0.0359	0.3624	1.0000e-003	0.0983	7.0000e-004	0.0990	0.0261	6.5000e-004	0.0268	0.0000	90.1248	90.1248	2.5700e-003	0.0000	90.1890
Total	**0.0578**	**0.3426**	**0.4302**	**1.6700e-003**	**0.1140**	**2.6600e-003**	**0.1167**	**0.0307**	**2.5200e-003**	**0.0332**	**0.0000**	**154.0015**	**154.0015**	**6.5100e-003**	**0.0000**	**154.1641**

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	0.0319	0.4046	1.4305	2.4000e-003		3.3000e-003	3.3000e-003		3.3000e-003	3.3000e-003	0.0000	199.5482	199.5482	0.0384	0.0000	200.5072
Total	**0.0319**	**0.4046**	**1.4305**	**2.4000e-003**		**3.3000e-003**	**3.3000e-003**		**3.3000e-003**	**3.3000e-003**	**0.0000**	**199.5482**	**199.5482**	**0.0384**	**0.0000**	**200.5072**

3.5 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	0.0108	0.3067	0.0678	6.7000e-004	0.0158	1.9600e-003	0.0177	4.5600e-003	1.8700e-003	6.4300e-003	0.0000	63.8767	63.8767	3.9400e-003	0.0000	63.9751
Worker	0.0470	0.0359	0.3624	1.0000e-003	0.0983	7.0000e-004	0.0990	0.0261	6.5000e-004	0.0268	0.0000	90.1248	90.1248	2.5700e-003	0.0000	90.1890
Total	**0.0578**	**0.3426**	**0.4302**	**1.6700e-003**	**0.1140**	**2.6600e-003**	**0.1167**	**0.0307**	**2.5200e-003**	**0.0332**	**0.0000**	**154.0015**	**154.0015**	**6.5100e-003**	**0.0000**	**154.1641**

3.6 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	9.9400e-003	0.1009	0.0979	1.5000e-004		5.7500e-003	5.7500e-003		5.3000e-003	5.3000e-003	0.0000	13.2232	13.2232	4.1000e-003	0.0000	13.3258
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.9400e-003**	**0.1009**	**0.0979**	**1.5000e-004**		**5.7500e-003**	**5.7500e-003**		**5.3000e-003**	**5.3000e-003**	**0.0000**	**13.2232**	**13.2232**	**4.1000e-003**	**0.0000**	**13.3258**

3.6 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	5.4000e-004	4.1000e-004	4.1700e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1400e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.0372	1.0372	3.0000e-005	0.0000	1.0379
Total	**5.4000e-004**	**4.1000e-004**	**4.1700e-003**	**1.0000e-005**	**1.1300e-003**	**1.0000e-005**	**1.1400e-003**	**3.0000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**1.0372**	**1.0372**	**3.0000e-005**	**0.0000**	**1.0379**

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	1.7600e-003	7.6100e-003	0.1084	1.5000e-004		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	13.2232	13.2232	4.1000e-003	0.0000	13.3257
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.7600e-003**	**7.6100e-003**	**0.1084**	**1.5000e-004**		**2.3000e-004**	**2.3000e-004**		**2.3000e-004**	**2.3000e-004**	**0.0000**	**13.2232**	**13.2232**	**4.1000e-003**	**0.0000**	**13.3257**

3.6 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	5.4000e-004	4.1000e-004	4.1700e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1400e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.0372	1.0372	3.0000e-005	0.0000	1.0379
Total	**5.4000e-004**	**4.1000e-004**	**4.1700e-003**	**1.0000e-005**	**1.1300e-003**	**1.0000e-005**	**1.1400e-003**	**3.0000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**1.0372**	**1.0372**	**3.0000e-005**	**0.0000**	**1.0379**

3.7 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	0.9577					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8000e-003	0.0193	0.0193	3.0000e-005		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	2.6809	2.6809	2.3000e-004	0.0000	2.6866
Total	**0.9605**	**0.0193**	**0.0193**	**3.0000e-005**		**1.3500e-003**	**1.3500e-003**		**1.3500e-003**	**1.3500e-003**	**0.0000**	**2.6809**	**2.6809**	**2.3000e-004**	**0.0000**	**2.6866**

3.7 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	9.1000e-004	7.0000e-004	7.0400e-003	2.0000e-005	1.9100e-003	1.0000e-005	1.9200e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.7516	1.7516	5.0000e-005	0.0000	1.7528
Total	**9.1000e-004**	**7.0000e-004**	**7.0400e-003**	**2.0000e-005**	**1.9100e-003**	**1.0000e-005**	**1.9200e-003**	**5.1000e-004**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**1.7516**	**1.7516**	**5.0000e-005**	**0.0000**	**1.7528**

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	0.9577					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1000e-004	1.3500e-003	0.0192	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.6809	2.6809	2.3000e-004	0.0000	2.6866
Total	**0.9580**	**1.3500e-003**	**0.0192**	**3.0000e-005**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**	**0.0000**	**2.6809**	**2.6809**	**2.3000e-004**	**0.0000**	**2.6866**

3.7 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	9.1000e-004	7.0000e-004	7.0400e-003	2.0000e-005	1.9100e-003	1.0000e-005	1.9200e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.7516	1.7516	5.0000e-005	0.0000	1.7528
Total	**9.1000e-004**	**7.0000e-004**	**7.0400e-003**	**2.0000e-005**	**1.9100e-003**	**1.0000e-005**	**1.9200e-003**	**5.1000e-004**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**1.7516**	**1.7516**	**5.0000e-005**	**0.0000**	**1.7528**

3.7 Architectural Coating - 2020

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	0.0456					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2000e-004	8.4000e-004	9.2000e-004	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.1277	0.1277	1.0000e-005	0.0000	0.1279
Total	**0.0457**	**8.4000e-004**	**9.2000e-004**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.1277**	**0.1277**	**1.0000e-005**	**0.0000**	**0.1279**

3.7 Architectural Coating - 2020

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	4.0000e-005	3.0000e-005	3.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0808	0.0808	0.0000	0.0000	0.0809
Total	**4.0000e-005**	**3.0000e-005**	**3.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0808**	**0.0808**	**0.0000**	**0.0000**	**0.0809**

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	0.0456					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0000e-005	6.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.1277	0.1277	1.0000e-005	0.0000	0.1279
Total	**0.0456**	**6.0000e-005**	**9.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.1277**	**0.1277**	**1.0000e-005**	**0.0000**	**0.1279**

3.7 Architectural Coating - 2020

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	4.0000e-005	3.0000e-005	3.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0808	0.0808	0.0000	0.0000	0.0809
Total	**4.0000e-005**	**3.0000e-005**	**3.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0808**	**0.0808**	**0.0000**	**0.0000**	**0.0809**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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	0.2043	1.2986	2.1835	7.2700e-003	0.4966	8.8000e-003	0.5054	0.1343	8.3100e-003	0.1426	0.0000	669.0066	669.0066	0.0315	0.0000	669.7935
Unmitigated	0.2043	1.2986	2.1835	7.2700e-003	0.4966	8.8000e-003	0.5054	0.1343	8.3100e-003	0.1426	0.0000	669.0066	669.0066	0.0315	0.0000	669.7935

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	518.70	518.70	518.70	1,197,993	1,197,993
Enclosed Parking with Elevator	0.00	0.00	0.00		
Health Club	0.00	0.00	0.00		
Strip Mall	30.89	30.89	30.89	47,578	47,578
Strip Mall	42.01	42.01	42.01	64,699	64,699
Total	591.61	591.61	591.61	1,310,271	1,310,271

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Health Club	9.50	7.30	7.30	16.90	64.10	19.00	52	39	9
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759
Health Club	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759
Apartments High Rise	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759
Strip Mall	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759
Strip Mall	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759

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	277.6997	277.6997	0.0126	2.6000e-003	278.7878
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	277.6997	277.6997	0.0126	2.6000e-003	278.7878
NaturalGas Mitigated	9.3600e-003	0.0807	0.0394	5.1000e-004		6.4700e-003	6.4700e-003		6.4700e-003	6.4700e-003	0.0000	92.6219	92.6219	1.7800e-003	1.7000e-003	93.1723
NaturalGas Unmitigated	9.3600e-003	0.0807	0.0394	5.1000e-004		6.4700e-003	6.4700e-003		6.4700e-003	6.4700e-003	0.0000	92.6219	92.6219	1.7800e-003	1.7000e-003	93.1723

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	1.48715e+006	8.0200e-003	0.0685	0.0292	4.4000e-004		5.5400e-003	5.5400e-003		5.5400e-003	5.5400e-003	0.0000	79.3597	79.3597	1.5200e-003	1.4500e-003	79.8313
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
Health Club	217014	1.1700e-003	0.0106	8.9400e-003	6.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	11.5807	11.5807	2.2000e-004	2.1000e-004	11.6495
Strip Mall	13351.8	7.0000e-005	6.5000e-004	5.5000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7125	0.7125	1.0000e-005	1.0000e-005	0.7167
Strip Mall	18156.6	1.0000e-004	8.9000e-004	7.5000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9689	0.9689	2.0000e-005	2.0000e-005	0.9747
Total		**9.3600e-003**	**0.0807**	**0.0394**	**5.1000e-004**		**6.4700e-003**	**6.4700e-003**		**6.4700e-003**	**6.4700e-003**	**0.0000**	**92.6219**	**92.6219**	**1.7700e-003**	**1.6900e-003**	**93.1723**

5.2 Energy by Land Use - NaturalGas

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	1.48715e+006	8.0200e-003	0.0685	0.0292	4.4000e-004		5.5400e-003	5.5400e-003		5.5400e-003	5.5400e-003	0.0000	79.3597	79.3597	1.5200e-003	1.4500e-003	79.8313
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
Health Club	217014	1.1700e-003	0.0106	8.9400e-003	6.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	11.5807	11.5807	2.2000e-004	2.1000e-004	11.6495
Strip Mall	13351.8	7.0000e-005	6.5000e-004	5.5000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7125	0.7125	1.0000e-005	1.0000e-005	0.7167
Strip Mall	18156.6	1.0000e-004	8.9000e-004	7.5000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9689	0.9689	2.0000e-005	2.0000e-005	0.9747
Total		**9.3600e-003**	**0.0807**	**0.0394**	**5.1000e-004**		**6.4700e-003**	**6.4700e-003**		**6.4700e-003**	**6.4700e-003**	**0.0000**	**92.6219**	**92.6219**	**1.7700e-003**	**1.6900e-003**	**93.1723**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	587781	170.9922	7.7300e-003	1.6000e-003	171.6621
Enclosed Parking with Elevator	226464	65.8810	2.9800e-003	6.2000e-004	66.1391
Health Club	67298	19.5778	8.9000e-004	1.8000e-004	19.6545
Strip Mall	30951.9	9.0043	4.1000e-004	8.0000e-005	9.0395
Strip Mall	42090.3	12.2446	5.5000e-004	1.1000e-004	12.2925
Total		**277.6997**	**0.0126**	**2.5900e-003**	**278.7878**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	587781	170.9922	7.7300e-003	1.6000e-003	171.6621
Enclosed Parking with Elevator	226464	65.8810	2.9800e-003	6.2000e-004	66.1391
Health Club	67298	19.5778	8.9000e-004	1.8000e-004	19.6545
Strip Mall	30951.9	9.0043	4.1000e-004	8.0000e-005	9.0395
Strip Mall	42090.3	12.2446	5.5000e-004	1.1000e-004	12.2925
Total		**277.6997**	**0.0126**	**2.5900e-003**	**278.7878**

6.0 Area Detail

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	0.7013	0.0179	0.9722	9.0000e-005		5.8700e-003	5.8700e-003		5.8700e-003	5.8700e-003	0.0000	9.3186	9.3186	1.6900e-003	1.4000e-004	9.4031
Unmitigated	0.7013	0.0179	0.9722	9.0000e-005		5.8700e-003	5.8700e-003		5.8700e-003	5.8700e-003	0.0000	9.3186	9.3186	1.6900e-003	1.4000e-004	9.4031

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	0.1003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5707					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	7.8000e-004	6.6800e-003	2.8400e-003	4.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	7.7400	7.7400	1.5000e-004	1.4000e-004	7.7860
Landscaping	0.0296	0.0112	0.9694	5.0000e-005		5.3300e-003	5.3300e-003		5.3300e-003	5.3300e-003	0.0000	1.5785	1.5785	1.5400e-003	0.0000	1.6171
Total	**0.7014**	**0.0179**	**0.9722**	**9.0000e-005**		**5.8700e-003**	**5.8700e-003**		**5.8700e-003**	**5.8700e-003**	**0.0000**	**9.3186**	**9.3186**	**1.6900e-003**	**1.4000e-004**	**9.4031**

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	0.1003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5707					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	7.8000e-004	6.6800e-003	2.8400e-003	4.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	7.7400	7.7400	1.5000e-004	1.4000e-004	7.7860
Landscaping	0.0296	0.0112	0.9694	5.0000e-005		5.3300e-003	5.3300e-003		5.3300e-003	5.3300e-003	0.0000	1.5785	1.5785	1.5400e-003	0.0000	1.6171
Total	**0.7014**	**0.0179**	**0.9722**	**9.0000e-005**		**5.8700e-003**	**5.8700e-003**		**5.8700e-003**	**5.8700e-003**	**0.0000**	**9.3186**	**9.3186**	**1.6900e-003**	**1.4000e-004**	**9.4031**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	24.0279	0.3103	7.5000e-003	34.0191
Unmitigated	24.0279	0.3103	7.5000e-003	34.0191

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	8.47002 / 5.3398	21.4569	0.2768	6.6900e-003	30.3724
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Health Club	0.516911 / 0.316816	1.3003	0.0169	4.1000e-004	1.8443
Strip Mall	0.505175 / 0.309623	1.2707	0.0165	4.0000e-004	1.8024
Total		**24.0279**	**0.3102**	**7.5000e-003**	**34.0191**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	8.47002 / 5.3398	21.4569	0.2768	6.6900e-003	30.3724
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Health Club	0.516911 / 0.316816	1.3003	0.0169	4.1000e-004	1.8443
Strip Mall	0.505175 / 0.309623	1.2707	0.0165	4.0000e-004	1.8024
Total		**24.0279**	**0.3102**	**7.5000e-003**	**34.0191**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	23.7053	1.4009	0.0000	58.7288
Unmitigated	23.7053	1.4009	0.0000	58.7288

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	59.8	12.1389	0.7174	0.0000	30.0735
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Health Club	49.82	10.1130	0.5977	0.0000	25.0546
Strip Mall	7.16	1.4534	0.0859	0.0000	3.6008
Total		**23.7053**	**1.4009**	**0.0000**	**58.7288**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	59.8	12.1389	0.7174	0.0000	30.0735
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Health Club	49.82	10.1130	0.5977	0.0000	25.0546
Strip Mall	7.16	1.4534	0.0859	0.0000	3.6008
Total		**23.7053**	**1.4009**	**0.0000**	**58.7288**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

4886.0001 Webster St.

Alameda County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	84.00	Space	0.76	33,600.00	0
Health Club	8.74	1000sqft	0.00	8,740.00	0
Apartments High Rise	130.00	Dwelling Unit	0.30	130,000.00	372
Strip Mall	2.89	1000sqft	0.00	2,890.00	0
Strip Mall	3.93	1000sqft	0.00	3,930.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

4886.0001 Webster St. - Alameda County, Summer

Project Characteristics -

Land Use - new PD states the project would have 84 parking lots, 130 dewlling units, and 2.89ksf retail.

Construction Phase - Based on CalEEMod defaults and 24th construction assumption

Grading - Project site is 0.3 acre

Demolition -

Vehicle Trips - From traffic study

Woodstoves - .

Construction Off-road Equipment Mitigation - .

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
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
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	10.00	22.00
tblConstructionPhase	NumDays	200.00	430.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	4.00	9.00
tblConstructionPhase	NumDays	10.00	22.00
tblConstructionPhase	NumDays	2.00	5.00
tblConstructionPhase	PhaseEndDate	1/14/2019	1/1/2020
tblConstructionPhase	PhaseEndDate	12/17/2018	10/31/2019
tblConstructionPhase	PhaseEndDate	3/2/2018	2/16/2018
tblConstructionPhase	PhaseEndDate	3/12/2018	3/8/2018
tblConstructionPhase	PhaseEndDate	12/31/2018	12/2/2019
tblConstructionPhase	PhaseEndDate	3/6/2018	2/23/2018
tblConstructionPhase	PhaseStartDate	1/1/2019	12/3/2019
tblConstructionPhase	PhaseStartDate	3/13/2018	3/9/2018
tblConstructionPhase	PhaseStartDate	3/7/2018	2/24/2018
tblConstructionPhase	PhaseStartDate	12/18/2018	11/1/2019
tblConstructionPhase	PhaseStartDate	3/3/2018	2/17/2018

tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	19.50	62.00
tblFireplaces	NumberNoFireplace	5.20	62.00
tblFireplaces	NumberWood	22.10	0.00
tblGrading	AcresOfGrading	3.38	0.30
tblGrading	AcresOfGrading	2.50	0.30
tblGrading	MaterialExported	0.00	1,481.00
tblLandUse	LotAcreage	0.20	0.00
tblLandUse	LotAcreage	2.10	0.30
tblLandUse	LotAcreage	0.07	0.00
tblLandUse	LotAcreage	0.09	0.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblVehicleTrips	ST_TR	4.98	3.99
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	42.04	10.69
tblVehicleTrips	SU_TR	3.65	3.99
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	20.43	10.69
tblVehicleTrips	WD_TR	4.20	3.99
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	44.32	10.69
tblWoodstoves	NumberCatalytic	2.60	0.00
tblWoodstoves	NumberNoncatalytic	2.60	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2018	3.2035	32.6178	18.5633	0.0482	6.0799	1.4491	7.0779	3.1034	1.3550	4.0233	0.0000	5,018.1233	5,018.1233	0.7049	0.0000	5,035.7452
2019	91.5645	19.0483	17.6817	0.0381	1.0855	0.9401	2.0257	0.2913	0.9076	1.1989	0.0000	3,654.1237	3,654.1237	0.4538	0.0000	3,665.4678
2020	91.5324	1.7356	2.4875	4.9000e-003	0.1889	0.1122	0.3011	0.0501	0.1121	0.1622	0.0000	473.5812	473.5812	0.0267	0.0000	474.2491
Maximum	**91.5645**	**32.6178**	**18.5633**	**0.0482**	**6.0799**	**1.4491**	**7.0779**	**3.1034**	**1.3550**	**4.0233**	**0.0000**	**5,018.1233**	**5,018.1233**	**0.7049**	**0.0000**	**5,035.7452**

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	lb/day										lb/day					
2018	0.9046	12.7831	17.8108	0.0482	6.0799	0.0739	6.1538	3.1034	0.0719	3.1753	0.0000	5,018.1233	5,018.1233	0.7049	0.0000	5,035.7452
2019	91.3278	6.7802	17.3188	0.0381	1.0855	0.0546	1.1401	0.2913	0.0533	0.3446	0.0000	3,654.1237	3,654.1237	0.4538	0.0000	3,665.4678
2020	91.3199	0.1805	2.4885	4.9000e-003	0.1889	5.2200e-003	0.1942	0.0501	5.1200e-003	0.0552	0.0000	473.5812	473.5812	0.0267	0.0000	474.2491
Maximum	**91.3278**	**12.7831**	**17.8108**	**0.0482**	**6.0799**	**0.0739**	**6.1538**	**3.1034**	**0.0719**	**3.1753**	**0.0000**	**5,018.1233**	**5,018.1233**	**0.7049**	**0.0000**	**5,035.7452**

4886.0001 Webster St. - Alameda County, Summer

	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	1.48	63.03	2.88	0.00	0.00	94.66	20.38	0.00	94.51	33.60	0.00	0.00	0.00	0.00	0.00	0.00

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	lb/day										lb/day					
Area	4.1457	1.3244	11.2816	8.2300e-003		0.1562	0.1562		0.1562	0.1562	0.0000	1,551.0983	1,551.0983	0.0483	0.0281	1,560.6730
Energy	0.0513	0.4422	0.2159	2.8000e-003		0.0354	0.0354		0.0354	0.0354		559.4417	559.4417	0.0107	0.0103	562.7662
Mobile	1.2848	6.9582	12.2880	0.0422	2.8311	0.0482	2.8793	0.7632	0.0455	0.8088		4,279.4936	4,279.4936	0.1891		4,284.2205
Total	**5.4818**	**8.7249**	**23.7854**	**0.0532**	**2.8311**	**0.2399**	**3.0710**	**0.7632**	**0.2372**	**1.0004**	**0.0000**	**6,390.0337**	**6,390.0337**	**0.2480**	**0.0383**	**6,407.6597**

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	lb/day										lb/day					
Area	4.1457	1.3244	11.2816	8.2300e-003		0.1562	0.1562		0.1562	0.1562	0.0000	1,551.0983	1,551.0983	0.0483	0.0281	1,560.6730
Energy	0.0513	0.4422	0.2159	2.8000e-003		0.0354	0.0354		0.0354	0.0354		559.4417	559.4417	0.0107	0.0103	562.7662
Mobile	1.2848	6.9582	12.2880	0.0422	2.8311	0.0482	2.8793	0.7632	0.0455	0.8088		4,279.4936	4,279.4936	0.1891		4,284.2205
Total	**5.4818**	**8.7249**	**23.7854**	**0.0532**	**2.8311**	**0.2399**	**3.0710**	**0.7632**	**0.2372**	**1.0004**	**0.0000**	**6,390.0337**	**6,390.0337**	**0.2480**	**0.0383**	**6,407.6597**

	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/5/2018	2/16/2018	5	10	
2	Site Preparation	Site Preparation	2/17/2018	2/23/2018	5	5	
3	Grading	Grading	2/24/2018	3/8/2018	5	9	
4	Building Construction	Building Construction	3/9/2018	10/31/2019	5	430	
5	Paving	Paving	11/1/2019	12/2/2019	5	22	
6	Architectural Coating	Architectural Coating	12/3/2019	1/1/2020	5	22	

Acres of Grading (Site Preparation Phase): 0.3

Acres of Grading (Grading Phase): 0.3

Acres of Paving: 0.76

Residential Indoor: 263,250; Residential Outdoor: 87,750; Non-Residential Indoor: 23,340; Non-Residential Outdoor: 7,780; Striped Parking Area: 2,016 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Building Construction	Welders	3	8.00	46	0.45

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
Architectural Coating	1	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	114.00	22.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	13.00	0.00	97.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	185.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Clean Paved Roads

3.2 Demolition - 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	lb/day										lb/day					
Fugitive Dust					2.0973	0.0000	2.0973	0.3176	0.0000	0.3176			0.0000			0.0000
Off-Road	2.4838	24.3641	15.1107	0.0241		1.4365	1.4365		1.3429	1.3429		2,391.1659	2,391.1659	0.6058		2,406.3105
Total	**2.4838**	**24.3641**	**15.1107**	**0.0241**	**2.0973**	**1.4365**	**3.5338**	**0.3176**	**1.3429**	**1.6604**		**2,391.1659**	**2,391.1659**	**0.6058**		**2,406.3105**

3.2 Demolition - 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	lb/day										lb/day					
Hauling	0.0912	3.1059	0.5041	7.9400e-003	0.1698	0.0119	0.1817	0.0466	0.0114	0.0579		841.9942	841.9942	0.0426		843.0588
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
Worker	0.0575	0.0377	0.4623	1.1600e-003	0.1068	7.5000e-004	0.1075	0.0283	6.9000e-004	0.0290		115.4236	115.4236	3.5700e-003		115.5129
Total	**0.1487**	**3.1436**	**0.9663**	**9.1000e-003**	**0.2766**	**0.0126**	**0.2892**	**0.0749**	**0.0121**	**0.0870**		**957.4178**	**957.4178**	**0.0462**		**958.5717**

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	lb/day										lb/day					
Fugitive Dust					2.0973	0.0000	2.0973	0.3176	0.0000	0.3176			0.0000			0.0000
Off-Road	0.2811	1.2179	14.7184	0.0241		0.0375	0.0375		0.0375	0.0375	0.0000	2,391.1659	2,391.1659	0.6058		2,406.3105
Total	**0.2811**	**1.2179**	**14.7184**	**0.0241**	**2.0973**	**0.0375**	**2.1348**	**0.3176**	**0.0375**	**0.3550**	**0.0000**	**2,391.1659**	**2,391.1659**	**0.6058**		**2,406.3105**

3.2 Demolition - 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	lb/day										lb/day					
Hauling	0.0912	3.1059	0.5041	7.9400e-003	0.1698	0.0119	0.1817	0.0466	0.0114	0.0579		841.9942	841.9942	0.0426		843.0588
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
Worker	0.0575	0.0377	0.4623	1.1600e-003	0.1068	7.5000e-004	0.1075	0.0283	6.9000e-004	0.0290		115.4236	115.4236	3.5700e-003		115.5129
Total	**0.1487**	**3.1436**	**0.9663**	**9.1000e-003**	**0.2766**	**0.0126**	**0.2892**	**0.0749**	**0.0121**	**0.0870**		**957.4178**	**957.4178**	**0.0462**		**958.5717**

3.3 Site Preparation - 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	lb/day										lb/day					
Fugitive Dust					5.3665	0.0000	5.3665	2.9084	0.0000	2.9084			0.0000			0.0000
Off-Road	1.8061	20.7472	8.0808	0.0172		0.9523	0.9523		0.8761	0.8761		1,735.3630	1,735.3630	0.5402		1,748.8690
Total	**1.8061**	**20.7472**	**8.0808**	**0.0172**	**5.3665**	**0.9523**	**6.3187**	**2.9084**	**0.8761**	**3.7845**		**1,735.3630**	**1,735.3630**	**0.5402**		**1,748.8690**

3.3 Site Preparation - 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	lb/day										lb/day					
Hauling	0.3480	11.8473	1.9228	0.0303	0.6477	0.0453	0.6930	0.1776	0.0434	0.2210		3,211.7304	3,211.7304	0.1624		3,215.7913
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
Worker	0.0354	0.0232	0.2845	7.1000e-004	0.0657	4.6000e-004	0.0662	0.0174	4.3000e-004	0.0179		71.0299	71.0299	2.2000e-003		71.0849
Total	**0.3834**	**11.8706**	**2.2072**	**0.0310**	**0.7134**	**0.0458**	**0.7592**	**0.1950**	**0.0438**	**0.2388**		**3,282.7603**	**3,282.7603**	**0.1646**		**3,286.8762**

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	lb/day										lb/day					
Fugitive Dust					5.3665	0.0000	5.3665	2.9084	0.0000	2.9084			0.0000			0.0000
Off-Road	0.2106	0.9126	8.6714	0.0172		0.0281	0.0281		0.0281	0.0281	0.0000	1,735.3630	1,735.3630	0.5402		1,748.8690
Total	**0.2106**	**0.9126**	**8.6714**	**0.0172**	**5.3665**	**0.0281**	**5.3945**	**2.9084**	**0.0281**	**2.9365**	**0.0000**	**1,735.3630**	**1,735.3630**	**0.5402**		**1,748.8690**

3.3 Site Preparation - 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	lb/day										lb/day					
Hauling	0.3480	11.8473	1.9228	0.0303	0.6477	0.0453	0.6930	0.1776	0.0434	0.2210		3,211.7304	3,211.7304	0.1624		3,215.7913
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
Worker	0.0354	0.0232	0.2845	7.1000e-004	0.0657	4.6000e-004	0.0662	0.0174	4.3000e-004	0.0179		71.0299	71.0299	2.2000e-003		71.0849
Total	**0.3834**	**11.8706**	**2.2072**	**0.0310**	**0.7134**	**0.0458**	**0.7592**	**0.1950**	**0.0438**	**0.2388**		**3,282.7603**	**3,282.7603**	**0.1646**		**3,286.8762**

3.4 Grading - 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	lb/day										lb/day					
Fugitive Dust					4.5519	0.0000	4.5519	2.4865	0.0000	2.4865			0.0000			0.0000
Off-Road	1.4972	17.0666	6.7630	0.0141		0.7947	0.7947		0.7311	0.7311		1,421.2605	1,421.2605	0.4425		1,432.3219
Total	**1.4972**	**17.0666**	**6.7630**	**0.0141**	**4.5519**	**0.7947**	**5.3466**	**2.4865**	**0.7311**	**3.2176**		**1,421.2605**	**1,421.2605**	**0.4425**		**1,432.3219**

3.4 Grading - 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	lb/day										lb/day					
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
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
Worker	0.0354	0.0232	0.2845	7.1000e-004	0.0657	4.6000e-004	0.0662	0.0174	4.3000e-004	0.0179		71.0299	71.0299	2.2000e-003		71.0849
Total	**0.0354**	**0.0232**	**0.2845**	**7.1000e-004**	**0.0657**	**4.6000e-004**	**0.0662**	**0.0174**	**4.3000e-004**	**0.0179**		**71.0299**	**71.0299**	**2.2000e-003**		**71.0849**

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	lb/day										lb/day					
Fugitive Dust					4.5519	0.0000	4.5519	2.4865	0.0000	2.4865			0.0000			0.0000
Off-Road	0.1725	0.7475	7.1557	0.0141		0.0230	0.0230		0.0230	0.0230	0.0000	1,421.2605	1,421.2605	0.4425		1,432.3219
Total	**0.1725**	**0.7475**	**7.1557**	**0.0141**	**4.5519**	**0.0230**	**4.5749**	**2.4865**	**0.0230**	**2.5095**	**0.0000**	**1,421.2605**	**1,421.2605**	**0.4425**		**1,432.3219**

3.4 Grading - 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	lb/day										lb/day					
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
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
Worker	0.0354	0.0232	0.2845	7.1000e-004	0.0657	4.6000e-004	0.0662	0.0174	4.3000e-004	0.0179		71.0299	71.0299	2.2000e-003		71.0849
Total	**0.0354**	**0.0232**	**0.2845**	**7.1000e-004**	**0.0657**	**4.6000e-004**	**0.0662**	**0.0174**	**4.3000e-004**	**0.0179**		**71.0299**	**71.0299**	**2.2000e-003**		**71.0849**

3.5 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	lb/day										lb/day					
Off-Road	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.8389	2,030.8389	0.4088		2,041.0596
Total	**2.5919**	**17.4280**	**13.8766**	**0.0220**		**1.0580**	**1.0580**		**1.0216**	**1.0216**		**2,030.8389**	**2,030.8389**	**0.4088**		**2,041.0596**

3.5 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	lb/day										lb/day					
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
Vendor	0.1073	2.9257	0.6330	6.2400e-003	0.1491	0.0210	0.1701	0.0429	0.0201	0.0630		657.8308	657.8308	0.0398		658.8263
Worker	0.5043	0.3308	4.0537	0.0102	0.9365	6.5800e-003	0.9431	0.2484	6.0700e-003	0.2545		1,012.1762	1,012.1762	0.0313		1,012.9595
Total	**0.6116**	**3.2564**	**4.6867**	**0.0164**	**1.0855**	**0.0276**	**1.1132**	**0.2913**	**0.0262**	**0.3175**		**1,670.0071**	**1,670.0071**	**0.0712**		**1,671.7859**

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	lb/day										lb/day					
Off-Road	0.2930	3.7120	13.1241	0.0220		0.0303	0.0303		0.0303	0.0303	0.0000	2,030.8389	2,030.8389	0.4088		2,041.0596
Total	**0.2930**	**3.7120**	**13.1241**	**0.0220**		**0.0303**	**0.0303**		**0.0303**	**0.0303**	**0.0000**	**2,030.8389**	**2,030.8389**	**0.4088**		**2,041.0596**

3.5 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	lb/day										lb/day					
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
Vendor	0.1073	2.9257	0.6330	6.2400e-003	0.1491	0.0210	0.1701	0.0429	0.0201	0.0630		657.8308	657.8308	0.0398		658.8263
Worker	0.5043	0.3308	4.0537	0.0102	0.9365	6.5800e-003	0.9431	0.2484	6.0700e-003	0.2545		1,012.1762	1,012.1762	0.0313		1,012.9595
Total	**0.6116**	**3.2564**	**4.6867**	**0.0164**	**1.0855**	**0.0276**	**1.1132**	**0.2913**	**0.0262**	**0.3175**		**1,670.0071**	**1,670.0071**	**0.0712**		**1,671.7859**

3.5 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	lb/day										lb/day					
Off-Road	2.2721	15.9802	13.4870	0.0220		0.9158	0.9158		0.8846	0.8846		2,018.0224	2,018.0224	0.3879		2,027.7210
Total	**2.2721**	**15.9802**	**13.4870**	**0.0220**		**0.9158**	**0.9158**		**0.8846**	**0.8846**		**2,018.0224**	**2,018.0224**	**0.3879**		**2,027.7210**

3.5 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	lb/day										lb/day					
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
Vendor	0.0973	2.7778	0.5810	6.2000e-003	0.1491	0.0179	0.1669	0.0429	0.0171	0.0600		653.4337	653.4337	0.0381		654.3861
Worker	0.4562	0.2903	3.6137	9.8700e-003	0.9365	6.4200e-003	0.9429	0.2484	5.9200e-003	0.2543		982.6675	982.6675	0.0277		983.3608
Total	**0.5535**	**3.0681**	**4.1947**	**0.0161**	**1.0855**	**0.0243**	**1.1098**	**0.2913**	**0.0230**	**0.3143**		**1,636.1013**	**1,636.1013**	**0.0658**		**1,637.7468**

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	lb/day										lb/day					
Off-Road	0.2930	3.7120	13.1241	0.0220		0.0303	0.0303		0.0303	0.0303	0.0000	2,018.0224	2,018.0224	0.3879		2,027.7210
Total	**0.2930**	**3.7120**	**13.1241**	**0.0220**		**0.0303**	**0.0303**		**0.0303**	**0.0303**	**0.0000**	**2,018.0224**	**2,018.0224**	**0.3879**		**2,027.7210**

3.5 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	lb/day										lb/day					
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
Vendor	0.0973	2.7778	0.5810	6.2000e-003	0.1491	0.0179	0.1669	0.0429	0.0171	0.0600		653.4337	653.4337	0.0381		654.3861
Worker	0.4562	0.2903	3.6137	9.8700e-003	0.9365	6.4200e-003	0.9429	0.2484	5.9200e-003	0.2543		982.6675	982.6675	0.0277		983.3608
Total	**0.5535**	**3.0681**	**4.1947**	**0.0161**	**1.0855**	**0.0243**	**1.1098**	**0.2913**	**0.0230**	**0.3143**		**1,636.1013**	**1,636.1013**	**0.0658**		**1,637.7468**

3.6 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	lb/day										lb/day					
Off-Road	0.9038	9.1743	8.9025	0.0135		0.5225	0.5225		0.4815	0.4815		1,325.0953	1,325.0953	0.4112		1,335.3751
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9038**	**9.1743**	**8.9025**	**0.0135**		**0.5225**	**0.5225**		**0.4815**	**0.4815**		**1,325.0953**	**1,325.0953**	**0.4112**		**1,335.3751**

3.6 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	lb/day										lb/day					
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
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
Worker	0.0520	0.0331	0.4121	1.1300e-003	0.1068	7.3000e-004	0.1075	0.0283	6.8000e-004	0.0290		112.0586	112.0586	3.1600e-003		112.1376
Total	**0.0520**	**0.0331**	**0.4121**	**1.1300e-003**	**0.1068**	**7.3000e-004**	**0.1075**	**0.0283**	**6.8000e-004**	**0.0290**		**112.0586**	**112.0586**	**3.1600e-003**		**112.1376**

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	lb/day										lb/day					
Off-Road	0.1598	0.6922	9.8512	0.0135		0.0213	0.0213		0.0213	0.0213	0.0000	1,325.0953	1,325.0953	0.4112		1,335.3751
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.1598**	**0.6922**	**9.8512**	**0.0135**		**0.0213**	**0.0213**		**0.0213**	**0.0213**	**0.0000**	**1,325.0953**	**1,325.0953**	**0.4112**		**1,335.3751**

3.6 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	lb/day										lb/day					
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
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
Worker	0.0520	0.0331	0.4121	1.1300e-003	0.1068	7.3000e-004	0.1075	0.0283	6.8000e-004	0.0290		112.0586	112.0586	3.1600e-003		112.1376
Total	**0.0520**	**0.0331**	**0.4121**	**1.1300e-003**	**0.1068**	**7.3000e-004**	**0.1075**	**0.0283**	**6.8000e-004**	**0.0290**		**112.0586**	**112.0586**	**3.1600e-003**		**112.1376**

3.7 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	lb/day										lb/day					
Archit. Coating	91.2061					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**91.4725**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 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	lb/day										lb/day					
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
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
Worker	0.0920	0.0586	0.7291	1.9900e-003	0.1889	1.3000e-003	0.1902	0.0501	1.1900e-003	0.0513		198.2575	198.2575	5.5900e-003		198.3974
Total	**0.0920**	**0.0586**	**0.7291**	**1.9900e-003**	**0.1889**	**1.3000e-003**	**0.1902**	**0.0501**	**1.1900e-003**	**0.0513**		**198.2575**	**198.2575**	**5.5900e-003**		**198.3974**

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	lb/day										lb/day					
Archit. Coating	91.2061					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**91.2358**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 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	lb/day										lb/day					
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
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
Worker	0.0920	0.0586	0.7291	1.9900e-003	0.1889	1.3000e-003	0.1902	0.0501	1.1900e-003	0.0513		198.2575	198.2575	5.5900e-003		198.3974
Total	**0.0920**	**0.0586**	**0.7291**	**1.9900e-003**	**0.1889**	**1.3000e-003**	**0.1902**	**0.0501**	**1.1900e-003**	**0.0513**		**198.2575**	**198.2575**	**5.5900e-003**		**198.3974**

3.7 Architectural Coating - 2020

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	lb/day										lb/day					
Archit. Coating	91.2061					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**91.4482**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.7 Architectural Coating - 2020

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	lb/day										lb/day					
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
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
Worker	0.0841	0.0518	0.6561	1.9300e-003	0.1889	1.2600e-003	0.1902	0.0501	1.1600e-003	0.0513		192.1332	192.1332	4.9200e-003		192.2563
Total	**0.0841**	**0.0518**	**0.6561**	**1.9300e-003**	**0.1889**	**1.2600e-003**	**0.1902**	**0.0501**	**1.1600e-003**	**0.0513**		**192.1332**	**192.1332**	**4.9200e-003**		**192.2563**

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	lb/day										lb/day					
Archit. Coating	91.2061					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**91.2358**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.7 Architectural Coating - 2020

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	lb/day										lb/day					
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
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
Worker	0.0841	0.0518	0.6561	1.9300e-003	0.1889	1.2600e-003	0.1902	0.0501	1.1600e-003	0.0513		192.1332	192.1332	4.9200e-003		192.2563
Total	**0.0841**	**0.0518**	**0.6561**	**1.9300e-003**	**0.1889**	**1.2600e-003**	**0.1902**	**0.0501**	**1.1600e-003**	**0.0513**		**192.1332**	**192.1332**	**4.9200e-003**		**192.2563**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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	lb/day										lb/day					
Mitigated	1.2848	6.9582	12.2880	0.0422	2.8311	0.0482	2.8793	0.7632	0.0455	0.8088		4,279.4936	4,279.4936	0.1891		4,284.2205
Unmitigated	1.2848	6.9582	12.2880	0.0422	2.8311	0.0482	2.8793	0.7632	0.0455	0.8088		4,279.4936	4,279.4936	0.1891		4,284.2205

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	518.70	518.70	518.70	1,197,993	1,197,993
Enclosed Parking with Elevator	0.00	0.00	0.00		
Health Club	0.00	0.00	0.00		
Strip Mall	30.89	30.89	30.89	47,578	47,578
Strip Mall	42.01	42.01	42.01	64,699	64,699
Total	591.61	591.61	591.61	1,310,271	1,310,271

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Health Club	9.50	7.30	7.30	16.90	64.10	19.00	52	39	9
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759
Health Club	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759
Apartments High Rise	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759
Strip Mall	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759
Strip Mall	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759

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	lb/day										lb/day					
NaturalGas Mitigated	0.0513	0.4422	0.2159	2.8000e-003		0.0354	0.0354		0.0354	0.0354		559.4417	559.4417	0.0107	0.0103	562.7662
NaturalGas Unmitigated	0.0513	0.4422	0.2159	2.8000e-003		0.0354	0.0354		0.0354	0.0354		559.4417	559.4417	0.0107	0.0103	562.7662

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	lb/day										lb/day					
Apartments High Rise	4074.37	0.0439	0.3755	0.1598	2.4000e-003		0.0304	0.0304		0.0304	0.0304		479.3378	479.3378	9.1900e-003	8.7900e-003	482.1862
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
Health Club	594.559	6.4100e-003	0.0583	0.0490	3.5000e-004		4.4300e-003	4.4300e-003		4.4300e-003	4.4300e-003		69.9482	69.9482	1.3400e-003	1.2800e-003	70.3638
Strip Mall	36.5803	3.9000e-004	3.5900e-003	3.0100e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004		4.3036	4.3036	8.0000e-005	8.0000e-005	4.3291
Strip Mall	49.7441	5.4000e-004	4.8800e-003	4.1000e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		5.8523	5.8523	1.1000e-004	1.1000e-004	5.8870
Total		**0.0513**	**0.4422**	**0.2159**	**2.8000e-003**		**0.0354**	**0.0354**		**0.0354**	**0.0354**		**559.4417**	**559.4417**	**0.0107**	**0.0103**	**562.7662**

5.2 Energy by Land Use - NaturalGas

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	lb/day										lb/day					
Apartments High Rise	4.07437	0.0439	0.3755	0.1598	2.4000e-003		0.0304	0.0304		0.0304	0.0304		479.3378	479.3378	9.1900e-003	8.7900e-003	482.1862
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
Health Club	0.594559	6.4100e-003	0.0583	0.0490	3.5000e-004		4.4300e-003	4.4300e-003		4.4300e-003	4.4300e-003		69.9482	69.9482	1.3400e-003	1.2800e-003	70.3638
Strip Mall	0.0365803	3.9000e-004	3.5900e-003	3.0100e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004		4.3036	4.3036	8.0000e-005	8.0000e-005	4.3291
Strip Mall	0.0497441	5.4000e-004	4.8800e-003	4.1000e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		5.8523	5.8523	1.1000e-004	1.1000e-004	5.8870
Total		**0.0513**	**0.4422**	**0.2159**	**2.8000e-003**		**0.0354**	**0.0354**		**0.0354**	**0.0354**		**559.4417**	**559.4417**	**0.0107**	**0.0103**	**562.7662**

6.0 Area Detail

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	lb/day										lb/day					
Mitigated	4.1457	1.3244	11.2816	8.2300e-003		0.1562	0.1562		0.1562	0.1562	0.0000	1,551.0983	1,551.0983	0.0483	0.0281	1,560.6730
Unmitigated	4.1457	1.3244	11.2816	8.2300e-003		0.1562	0.1562		0.1562	0.1562	0.0000	1,551.0983	1,551.0983	0.0483	0.0281	1,560.6730

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	lb/day										lb/day					
Architectural Coating	0.5497					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.1269					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1404	1.1999	0.5106	7.6600e-003		0.0970	0.0970		0.0970	0.0970	0.0000	1,531.7647	1,531.7647	0.0294	0.0281	1,540.8672
Landscaping	0.3286	0.1246	10.7711	5.7000e-004		0.0592	0.0592		0.0592	0.0592		19.3336	19.3336	0.0189		19.8058
Total	**4.1457**	**1.3244**	**11.2816**	**8.2300e-003**		**0.1562**	**0.1562**		**0.1562**	**0.1562**	**0.0000**	**1,551.0983**	**1,551.0983**	**0.0483**	**0.0281**	**1,560.6731**

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	lb/day										lb/day					
Architectural Coating	0.5497					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.1269					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1404	1.1999	0.5106	7.6600e-003		0.0970	0.0970		0.0970	0.0970	0.0000	1,531.7647	1,531.7647	0.0294	0.0281	1,540.8672
Landscaping	0.3286	0.1246	10.7711	5.7000e-004		0.0592	0.0592		0.0592	0.0592		19.3336	19.3336	0.0189		19.8058
Total	**4.1457**	**1.3244**	**11.2816**	**8.2300e-003**		**0.1562**	**0.1562**		**0.1562**	**0.1562**	**0.0000**	**1,551.0983**	**1,551.0983**	**0.0483**	**0.0281**	**1,560.6731**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

4886.0001 Webster St.

Alameda County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	84.00	Space	0.76	33,600.00	0
Health Club	8.74	1000sqft	0.00	8,740.00	0
Apartments High Rise	130.00	Dwelling Unit	0.30	130,000.00	372
Strip Mall	2.89	1000sqft	0.00	2,890.00	0
Strip Mall	3.93	1000sqft	0.00	3,930.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - new PD states the project would have 84 parking lots, 130 dewlling units, and 2.89ksf retail.

Construction Phase - Based on CalEEMod defaults and 24th construction assumption

Grading - Project site is 0.3 acre

Demolition -

Vehicle Trips - From traffic study

Woodstoves - .

Construction Off-road Equipment Mitigation - .

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
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
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	10.00	22.00
tblConstructionPhase	NumDays	200.00	430.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	4.00	9.00
tblConstructionPhase	NumDays	10.00	22.00
tblConstructionPhase	NumDays	2.00	5.00
tblConstructionPhase	PhaseEndDate	1/14/2019	1/1/2020
tblConstructionPhase	PhaseEndDate	12/17/2018	10/31/2019
tblConstructionPhase	PhaseEndDate	3/2/2018	2/16/2018
tblConstructionPhase	PhaseEndDate	3/12/2018	3/8/2018
tblConstructionPhase	PhaseEndDate	12/31/2018	12/2/2019
tblConstructionPhase	PhaseEndDate	3/6/2018	2/23/2018
tblConstructionPhase	PhaseStartDate	1/1/2019	12/3/2019
tblConstructionPhase	PhaseStartDate	3/13/2018	3/9/2018
tblConstructionPhase	PhaseStartDate	3/7/2018	2/24/2018
tblConstructionPhase	PhaseStartDate	12/18/2018	11/1/2019
tblConstructionPhase	PhaseStartDate	3/3/2018	2/17/2018

tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	19.50	62.00
tblFireplaces	NumberNoFireplace	5.20	62.00
tblFireplaces	NumberWood	22.10	0.00
tblGrading	AcresOfGrading	3.38	0.30
tblGrading	AcresOfGrading	2.50	0.30
tblGrading	MaterialExported	0.00	1,481.00
tblLandUse	LotAcreage	0.20	0.00
tblLandUse	LotAcreage	2.10	0.30
tblLandUse	LotAcreage	0.07	0.00
tblLandUse	LotAcreage	0.09	0.00
tblProjectCharacteristics	OperationalYear	2018	2020
tblVehicleTrips	ST_TR	4.98	3.99
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	42.04	10.69
tblVehicleTrips	SU_TR	3.65	3.99
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	20.43	10.69
tblVehicleTrips	WD_TR	4.20	3.99
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	44.32	10.69
tblWoodstoves	NumberCatalytic	2.60	0.00
tblWoodstoves	NumberNoncatalytic	2.60	0.00
tblWoodstoves	WoodstoveDayYear	14.12	0.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2018	3.2320	32.9151	18.4741	0.0476	6.0799	1.4493	7.0787	3.1034	1.3552	4.0241	0.0000	4,954.9708	4,954.9708	0.7176	0.0000	4,972.9119
2019	91.5686	19.1523	17.5860	0.0372	1.0855	0.9404	2.0259	0.2913	0.9078	1.1992	0.0000	3,558.0272	3,558.0272	0.4561	0.0000	3,569.4290
2020	91.5360	1.7482	2.4510	4.7400e-003	0.1889	0.1122	0.3011	0.0501	0.1121	0.1622	0.0000	458.2510	458.2510	0.0264	0.0000	458.9111
Maximum	**91.5686**	**32.9151**	**18.4741**	**0.0476**	**6.0799**	**1.4493**	**7.0787**	**3.1034**	**1.3552**	**4.0241**	**0.0000**	**4,954.9708**	**4,954.9708**	**0.7176**	**0.0000**	**4,972.9119**

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	lb/day										lb/day					
2018	0.9331	13.0805	17.7216	0.0476	6.0799	0.0747	6.1546	3.1034	0.0727	3.1761	0.0000	4,954.9708	4,954.9708	0.7176	0.0000	4,972.9119
2019	91.3319	6.8841	17.2231	0.0372	1.0855	0.0549	1.1404	0.2913	0.0536	0.3449	0.0000	3,558.0272	3,558.0272	0.4561	0.0000	3,569.4290
2020	91.3235	0.1932	2.4519	4.7400e-003	0.1889	5.2200e-003	0.1942	0.0501	5.1200e-003	0.0552	0.0000	458.2510	458.2510	0.0264	0.0000	458.9111
Maximum	**91.3319**	**13.0805**	**17.7216**	**0.0476**	**6.0799**	**0.0747**	**6.1546**	**3.1034**	**0.0727**	**3.1761**	**0.0000**	**4,954.9708**	**4,954.9708**	**0.7176**	**0.0000**	**4,972.9119**

4886.0001 Webster St. - Alameda County, Winter

	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	1.47	62.54	2.89	0.00	0.00	94.61	20.38	0.00	94.47	33.59	0.00	0.00	0.00	0.00	0.00	0.00

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	lb/day										lb/day					
Area	4.1457	1.3244	11.2816	8.2300e-003		0.1562	0.1562		0.1562	0.1562	0.0000	1,551.0983	1,551.0983	0.0483	0.0281	1,560.6730
Energy	0.0513	0.4422	0.2159	2.8000e-003		0.0354	0.0354		0.0354	0.0354		559.4417	559.4417	0.0107	0.0103	562.7662
Mobile	1.1157	7.2235	12.6817	0.0395	2.8311	0.0487	2.8798	0.7632	0.0459	0.8092		4,010.0369	4,010.0369	0.1980		4,014.9866
Total	**5.3126**	**8.9902**	**24.1792**	**0.0506**	**2.8311**	**0.2403**	**3.0714**	**0.7632**	**0.2376**	**1.0008**	**0.0000**	**6,120.5769**	**6,120.5769**	**0.2570**	**0.0383**	**6,138.4259**

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	lb/day										lb/day					
Area	4.1457	1.3244	11.2816	8.2300e-003		0.1562	0.1562		0.1562	0.1562	0.0000	1,551.0983	1,551.0983	0.0483	0.0281	1,560.6730
Energy	0.0513	0.4422	0.2159	2.8000e-003		0.0354	0.0354		0.0354	0.0354		559.4417	559.4417	0.0107	0.0103	562.7662
Mobile	1.1157	7.2235	12.6817	0.0395	2.8311	0.0487	2.8798	0.7632	0.0459	0.8092		4,010.0369	4,010.0369	0.1980		4,014.9866
Total	**5.3126**	**8.9902**	**24.1792**	**0.0506**	**2.8311**	**0.2403**	**3.0714**	**0.7632**	**0.2376**	**1.0008**	**0.0000**	**6,120.5769**	**6,120.5769**	**0.2570**	**0.0383**	**6,138.4259**

	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/5/2018	2/16/2018	5	10	
2	Site Preparation	Site Preparation	2/17/2018	2/23/2018	5	5	
3	Grading	Grading	2/24/2018	3/8/2018	5	9	
4	Building Construction	Building Construction	3/9/2018	10/31/2019	5	430	
5	Paving	Paving	11/1/2019	12/2/2019	5	22	
6	Architectural Coating	Architectural Coating	12/3/2019	1/1/2020	5	22	

Acres of Grading (Site Preparation Phase): 0.3

Acres of Grading (Grading Phase): 0.3

Acres of Paving: 0.76

Residential Indoor: 263,250; Residential Outdoor: 87,750; Non-Residential Indoor: 23,340; Non-Residential Outdoor: 7,780; Striped Parking Area: 2,016 (Architectural Coating – sqft)

OffRoad Equipment

4886.0001 Webster St. - Alameda County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Building Construction	Welders	3	8.00	46	0.45

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
Architectural Coating	1	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	114.00	22.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	13.00	0.00	97.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	185.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Clean Paved Roads

3.2 Demolition - 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	lb/day										lb/day					
Fugitive Dust					2.0973	0.0000	2.0973	0.3176	0.0000	0.3176			0.0000			0.0000
Off-Road	2.4838	24.3641	15.1107	0.0241		1.4365	1.4365		1.3429	1.3429		2,391.1659	2,391.1659	0.6058		2,406.3105
Total	**2.4838**	**24.3641**	**15.1107**	**0.0241**	**2.0973**	**1.4365**	**3.5338**	**0.3176**	**1.3429**	**1.6604**		**2,391.1659**	**2,391.1659**	**0.6058**		**2,406.3105**

3.2 Demolition - 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	lb/day										lb/day					
Hauling	0.0939	3.1824	0.5544	7.7900e-003	0.1698	0.0121	0.1819	0.0466	0.0116	0.0581		826.9212	826.9212	0.0460		828.0703
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
Worker	0.0602	0.0469	0.4411	1.0700e-003	0.1068	7.5000e-004	0.1075	0.0283	6.9000e-004	0.0290		106.2298	106.2298	3.3800e-003		106.3144
Total	**0.1541**	**3.2293**	**0.9955**	**8.8600e-003**	**0.2766**	**0.0129**	**0.2894**	**0.0749**	**0.0123**	**0.0872**		**933.1511**	**933.1511**	**0.0493**		**934.3847**

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	lb/day										lb/day					
Fugitive Dust					2.0973	0.0000	2.0973	0.3176	0.0000	0.3176			0.0000			0.0000
Off-Road	0.2811	1.2179	14.7184	0.0241		0.0375	0.0375		0.0375	0.0375	0.0000	2,391.1659	2,391.1659	0.6058		2,406.3105
Total	**0.2811**	**1.2179**	**14.7184**	**0.0241**	**2.0973**	**0.0375**	**2.1348**	**0.3176**	**0.0375**	**0.3550**	**0.0000**	**2,391.1659**	**2,391.1659**	**0.6058**		**2,406.3105**

3.2 Demolition - 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	lb/day										lb/day					
Hauling	0.0939	3.1824	0.5544	7.7900e-003	0.1698	0.0121	0.1819	0.0466	0.0116	0.0581		826.9212	826.9212	0.0460		828.0703
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
Worker	0.0602	0.0469	0.4411	1.0700e-003	0.1068	7.5000e-004	0.1075	0.0283	6.9000e-004	0.0290		106.2298	106.2298	3.3800e-003		106.3144
Total	**0.1541**	**3.2293**	**0.9955**	**8.8600e-003**	**0.2766**	**0.0129**	**0.2894**	**0.0749**	**0.0123**	**0.0872**		**933.1511**	**933.1511**	**0.0493**		**934.3847**

3.3 Site Preparation - 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	lb/day										lb/day					
Fugitive Dust					5.3665	0.0000	5.3665	2.9084	0.0000	2.9084			0.0000			0.0000
Off-Road	1.8061	20.7472	8.0808	0.0172		0.9523	0.9523		0.8761	0.8761		1,735.3630	1,735.3630	0.5402		1,748.8690
Total	**1.8061**	**20.7472**	**8.0808**	**0.0172**	**5.3665**	**0.9523**	**6.3187**	**2.9084**	**0.8761**	**3.7845**		**1,735.3630**	**1,735.3630**	**0.5402**		**1,748.8690**

3.3 Site Preparation - 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	lb/day										lb/day					
Hauling	0.3582	12.1391	2.1147	0.0297	0.6477	0.0461	0.6939	0.1776	0.0442	0.2218		3,154.2357	3,154.2357	0.1753		3,158.6187
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
Worker	0.0370	0.0289	0.2714	6.6000e-004	0.0657	4.6000e-004	0.0662	0.0174	4.3000e-004	0.0179		65.3722	65.3722	2.0800e-003		65.4242
Total	**0.3952**	**12.1679**	**2.3861**	**0.0304**	**0.7134**	**0.0466**	**0.7600**	**0.1950**	**0.0446**	**0.2396**		**3,219.6079**	**3,219.6079**	**0.1774**		**3,224.0429**

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	lb/day										lb/day					
Fugitive Dust					5.3665	0.0000	5.3665	2.9084	0.0000	2.9084			0.0000			0.0000
Off-Road	0.2106	0.9126	8.6714	0.0172		0.0281	0.0281		0.0281	0.0281	0.0000	1,735.3630	1,735.3630	0.5402		1,748.8690
Total	**0.2106**	**0.9126**	**8.6714**	**0.0172**	**5.3665**	**0.0281**	**5.3945**	**2.9084**	**0.0281**	**2.9365**	**0.0000**	**1,735.3630**	**1,735.3630**	**0.5402**		**1,748.8690**

3.3 Site Preparation - 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	lb/day										lb/day					
Hauling	0.3582	12.1391	2.1147	0.0297	0.6477	0.0461	0.6939	0.1776	0.0442	0.2218		3,154.2357	3,154.2357	0.1753		3,158.6187
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
Worker	0.0370	0.0289	0.2714	6.6000e-004	0.0657	4.6000e-004	0.0662	0.0174	4.3000e-004	0.0179		65.3722	65.3722	2.0800e-003		65.4242
Total	**0.3952**	**12.1679**	**2.3861**	**0.0304**	**0.7134**	**0.0466**	**0.7600**	**0.1950**	**0.0446**	**0.2396**		**3,219.6079**	**3,219.6079**	**0.1774**		**3,224.0429**

3.4 Grading - 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	lb/day										lb/day					
Fugitive Dust					4.5519	0.0000	4.5519	2.4865	0.0000	2.4865			0.0000			0.0000
Off-Road	1.4972	17.0666	6.7630	0.0141		0.7947	0.7947		0.7311	0.7311		1,421.2605	1,421.2605	0.4425		1,432.3219
Total	**1.4972**	**17.0666**	**6.7630**	**0.0141**	**4.5519**	**0.7947**	**5.3466**	**2.4865**	**0.7311**	**3.2176**		**1,421.2605**	**1,421.2605**	**0.4425**		**1,432.3219**

3.4 Grading - 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	lb/day										lb/day					
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
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
Worker	0.0370	0.0289	0.2714	6.6000e-004	0.0657	4.6000e-004	0.0662	0.0174	4.3000e-004	0.0179		65.3722	65.3722	2.0800e-003		65.4242
Total	**0.0370**	**0.0289**	**0.2714**	**6.6000e-004**	**0.0657**	**4.6000e-004**	**0.0662**	**0.0174**	**4.3000e-004**	**0.0179**		**65.3722**	**65.3722**	**2.0800e-003**		**65.4242**

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	lb/day										lb/day					
Fugitive Dust					4.5519	0.0000	4.5519	2.4865	0.0000	2.4865			0.0000			0.0000
Off-Road	0.1725	0.7475	7.1557	0.0141		0.0230	0.0230		0.0230	0.0230	0.0000	1,421.2605	1,421.2605	0.4425		1,432.3219
Total	**0.1725**	**0.7475**	**7.1557**	**0.0141**	**4.5519**	**0.0230**	**4.5749**	**2.4865**	**0.0230**	**2.5095**	**0.0000**	**1,421.2605**	**1,421.2605**	**0.4425**		**1,432.3219**

3.4 Grading - 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	lb/day										lb/day					
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
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
Worker	0.0370	0.0289	0.2714	6.6000e-004	0.0657	4.6000e-004	0.0662	0.0174	4.3000e-004	0.0179		65.3722	65.3722	2.0800e-003		65.4242
Total	**0.0370**	**0.0289**	**0.2714**	**6.6000e-004**	**0.0657**	**4.6000e-004**	**0.0662**	**0.0174**	**4.3000e-004**	**0.0179**		**65.3722**	**65.3722**	**2.0800e-003**		**65.4242**

3.5 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	lb/day										lb/day					
Off-Road	2.5919	17.4280	13.8766	0.0220		1.0580	1.0580		1.0216	1.0216		2,030.8389	2,030.8389	0.4088		2,041.0596
Total	**2.5919**	**17.4280**	**13.8766**	**0.0220**		**1.0580**	**1.0580**		**1.0216**	**1.0216**		**2,030.8389**	**2,030.8389**	**0.4088**		**2,041.0596**

3.5 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	lb/day										lb/day					
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
Vendor	0.1124	2.9638	0.7295	6.0800e-003	0.1491	0.0213	0.1704	0.0429	0.0204	0.0633		640.1662	640.1662	0.0439		641.2641
Worker	0.5278	0.4114	3.8680	9.3600e-003	0.9365	6.5800e-003	0.9431	0.2484	6.0700e-003	0.2545		931.5537	931.5537	0.0297		932.2952
Total	**0.6401**	**3.3753**	**4.5975**	**0.0154**	**1.0855**	**0.0279**	**1.1135**	**0.2913**	**0.0265**	**0.3178**		**1,571.7199**	**1,571.7199**	**0.0736**		**1,573.5593**

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	lb/day										lb/day					
Off-Road	0.2930	3.7120	13.1241	0.0220		0.0303	0.0303		0.0303	0.0303	0.0000	2,030.8389	2,030.8389	0.4088		2,041.0596
Total	**0.2930**	**3.7120**	**13.1241**	**0.0220**		**0.0303**	**0.0303**		**0.0303**	**0.0303**	**0.0000**	**2,030.8389**	**2,030.8389**	**0.4088**		**2,041.0596**

3.5 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	lb/day										lb/day					
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
Vendor	0.1124	2.9638	0.7295	6.0800e-003	0.1491	0.0213	0.1704	0.0429	0.0204	0.0633		640.1662	640.1662	0.0439		641.2641
Worker	0.5278	0.4114	3.8680	9.3600e-003	0.9365	6.5800e-003	0.9431	0.2484	6.0700e-003	0.2545		931.5537	931.5537	0.0297		932.2952
Total	**0.6401**	**3.3753**	**4.5975**	**0.0154**	**1.0855**	**0.0279**	**1.1135**	**0.2913**	**0.0265**	**0.3178**		**1,571.7199**	**1,571.7199**	**0.0736**		**1,573.5593**

3.5 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	lb/day										lb/day					
Off-Road	2.2721	15.9802	13.4870	0.0220		0.9158	0.9158		0.8846	0.8846		2,018.0224	2,018.0224	0.3879		2,027.7210
Total	**2.2721**	**15.9802**	**13.4870**	**0.0220**		**0.9158**	**0.9158**		**0.8846**	**0.8846**		**2,018.0224**	**2,018.0224**	**0.3879**		**2,027.7210**

3.5 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	lb/day										lb/day					
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
Vendor	0.1019	2.8109	0.6706	6.0300e-003	0.1491	0.0181	0.1672	0.0429	0.0174	0.0603		635.6985	635.6985	0.0420		636.7483
Worker	0.4763	0.3611	3.4283	9.0800e-003	0.9365	6.4200e-003	0.9429	0.2484	5.9200e-003	0.2543		904.3063	904.3063	0.0261		904.9597
Total	**0.5782**	**3.1721**	**4.0990**	**0.0151**	**1.0855**	**0.0246**	**1.1101**	**0.2913**	**0.0233**	**0.3146**		**1,540.0048**	**1,540.0048**	**0.0681**		**1,541.7080**

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	lb/day										lb/day					
Off-Road	0.2930	3.7120	13.1241	0.0220		0.0303	0.0303		0.0303	0.0303	0.0000	2,018.0224	2,018.0224	0.3879		2,027.7210
Total	**0.2930**	**3.7120**	**13.1241**	**0.0220**		**0.0303**	**0.0303**		**0.0303**	**0.0303**	**0.0000**	**2,018.0224**	**2,018.0224**	**0.3879**		**2,027.7210**

3.5 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	lb/day										lb/day					
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
Vendor	0.1019	2.8109	0.6706	6.0300e-003	0.1491	0.0181	0.1672	0.0429	0.0174	0.0603		635.6985	635.6985	0.0420		636.7483
Worker	0.4763	0.3611	3.4283	9.0800e-003	0.9365	6.4200e-003	0.9429	0.2484	5.9200e-003	0.2543		904.3063	904.3063	0.0261		904.9597
Total	**0.5782**	**3.1721**	**4.0990**	**0.0151**	**1.0855**	**0.0246**	**1.1101**	**0.2913**	**0.0233**	**0.3146**		**1,540.0048**	**1,540.0048**	**0.0681**		**1,541.7080**

3.6 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	lb/day										lb/day					
Off-Road	0.9038	9.1743	8.9025	0.0135		0.5225	0.5225		0.4815	0.4815		1,325.0953	1,325.0953	0.4112		1,335.3751
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9038**	**9.1743**	**8.9025**	**0.0135**		**0.5225**	**0.5225**		**0.4815**	**0.4815**		**1,325.0953**	**1,325.0953**	**0.4112**		**1,335.3751**

3.6 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	lb/day										lb/day					
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
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
Worker	0.0543	0.0412	0.3910	1.0400e-003	0.1068	7.3000e-004	0.1075	0.0283	6.8000e-004	0.0290		103.1226	103.1226	2.9800e-003		103.1972
Total	**0.0543**	**0.0412**	**0.3910**	**1.0400e-003**	**0.1068**	**7.3000e-004**	**0.1075**	**0.0283**	**6.8000e-004**	**0.0290**		**103.1226**	**103.1226**	**2.9800e-003**		**103.1972**

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	lb/day										lb/day					
Off-Road	0.1598	0.6922	9.8512	0.0135		0.0213	0.0213		0.0213	0.0213	0.0000	1,325.0953	1,325.0953	0.4112		1,335.3751
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.1598**	**0.6922**	**9.8512**	**0.0135**		**0.0213**	**0.0213**		**0.0213**	**0.0213**	**0.0000**	**1,325.0953**	**1,325.0953**	**0.4112**		**1,335.3751**

3.6 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	lb/day										lb/day					
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
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
Worker	0.0543	0.0412	0.3910	1.0400e-003	0.1068	7.3000e-004	0.1075	0.0283	6.8000e-004	0.0290		103.1226	103.1226	2.9800e-003		103.1972
Total	**0.0543**	**0.0412**	**0.3910**	**1.0400e-003**	**0.1068**	**7.3000e-004**	**0.1075**	**0.0283**	**6.8000e-004**	**0.0290**		**103.1226**	**103.1226**	**2.9800e-003**		**103.1972**

3.7 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	lb/day										lb/day					
Archit. Coating	91.2061					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**91.4725**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 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	lb/day										lb/day					
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
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
Worker	0.0961	0.0729	0.6917	1.8300e-003	0.1889	1.3000e-003	0.1902	0.0501	1.1900e-003	0.0513		182.4478	182.4478	5.2700e-003		182.5796
Total	**0.0961**	**0.0729**	**0.6917**	**1.8300e-003**	**0.1889**	**1.3000e-003**	**0.1902**	**0.0501**	**1.1900e-003**	**0.0513**		**182.4478**	**182.4478**	**5.2700e-003**		**182.5796**

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	lb/day										lb/day					
Archit. Coating	91.2061					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0238		282.0423
Total	**91.2358**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.7 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	lb/day										lb/day					
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
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
Worker	0.0961	0.0729	0.6917	1.8300e-003	0.1889	1.3000e-003	0.1902	0.0501	1.1900e-003	0.0513		182.4478	182.4478	5.2700e-003		182.5796
Total	**0.0961**	**0.0729**	**0.6917**	**1.8300e-003**	**0.1889**	**1.3000e-003**	**0.1902**	**0.0501**	**1.1900e-003**	**0.0513**		**182.4478**	**182.4478**	**5.2700e-003**		**182.5796**

3.7 Architectural Coating - 2020

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	lb/day										lb/day					
Archit. Coating	91.2061					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**91.4482**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.7 Architectural Coating - 2020

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	lb/day										lb/day					
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
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
Worker	0.0878	0.0644	0.6195	1.7700e-003	0.1889	1.2600e-003	0.1902	0.0501	1.1600e-003	0.0513		176.8030	176.8030	4.6100e-003		176.9183
Total	**0.0878**	**0.0644**	**0.6195**	**1.7700e-003**	**0.1889**	**1.2600e-003**	**0.1902**	**0.0501**	**1.1600e-003**	**0.0513**		**176.8030**	**176.8030**	**4.6100e-003**		**176.9183**

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	lb/day										lb/day					
Archit. Coating	91.2061					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**91.2358**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.7 Architectural Coating - 2020

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	lb/day										lb/day					
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
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
Worker	0.0878	0.0644	0.6195	1.7700e-003	0.1889	1.2600e-003	0.1902	0.0501	1.1600e-003	0.0513		176.8030	176.8030	4.6100e-003		176.9183
Total	**0.0878**	**0.0644**	**0.6195**	**1.7700e-003**	**0.1889**	**1.2600e-003**	**0.1902**	**0.0501**	**1.1600e-003**	**0.0513**		**176.8030**	**176.8030**	**4.6100e-003**		**176.9183**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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	lb/day										lb/day					
Mitigated	1.1157	7.2235	12.6817	0.0395	2.8311	0.0487	2.8798	0.7632	0.0459	0.8092		4,010.0369	4,010.0369	0.1980		4,014.9866
Unmitigated	1.1157	7.2235	12.6817	0.0395	2.8311	0.0487	2.8798	0.7632	0.0459	0.8092		4,010.0369	4,010.0369	0.1980		4,014.9866

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	518.70	518.70	518.70	1,197,993	1,197,993
Enclosed Parking with Elevator	0.00	0.00	0.00		
Health Club	0.00	0.00	0.00		
Strip Mall	30.89	30.89	30.89	47,578	47,578
Strip Mall	42.01	42.01	42.01	64,699	64,699
Total	591.61	591.61	591.61	1,310,271	1,310,271

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Health Club	9.50	7.30	7.30	16.90	64.10	19.00	52	39	9
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759
Health Club	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759
Apartments High Rise	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759
Strip Mall	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759
Strip Mall	0.558186	0.040947	0.190770	0.110456	0.017401	0.005228	0.022658	0.042795	0.002118	0.002805	0.005569	0.000308	0.000759

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	lb/day										lb/day					
NaturalGas Mitigated	0.0513	0.4422	0.2159	2.8000e-003		0.0354	0.0354		0.0354	0.0354		559.4417	559.4417	0.0107	0.0103	562.7662
NaturalGas Unmitigated	0.0513	0.4422	0.2159	2.8000e-003		0.0354	0.0354		0.0354	0.0354		559.4417	559.4417	0.0107	0.0103	562.7662

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	lb/day										lb/day					
Apartments High Rise	4074.37	0.0439	0.3755	0.1598	2.4000e-003		0.0304	0.0304		0.0304	0.0304		479.3378	479.3378	9.1900e-003	8.7900e-003	482.1862
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
Health Club	594.559	6.4100e-003	0.0583	0.0490	3.5000e-004		4.4300e-003	4.4300e-003		4.4300e-003	4.4300e-003		69.9482	69.9482	1.3400e-003	1.2800e-003	70.3638
Strip Mall	36.5803	3.9000e-004	3.5900e-003	3.0100e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004		4.3036	4.3036	8.0000e-005	8.0000e-005	4.3291
Strip Mall	49.7441	5.4000e-004	4.8800e-003	4.1000e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		5.8523	5.8523	1.1000e-004	1.1000e-004	5.8870
Total		**0.0513**	**0.4422**	**0.2159**	**2.8000e-003**		**0.0354**	**0.0354**		**0.0354**	**0.0354**		**559.4417**	**559.4417**	**0.0107**	**0.0103**	**562.7662**

5.2 Energy by Land Use - NaturalGas

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	lb/day										lb/day					
Apartments High Rise	4.07437	0.0439	0.3755	0.1598	2.4000e-003		0.0304	0.0304		0.0304	0.0304		479.3378	479.3378	9.1900e-003	8.7900e-003	482.1862
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
Health Club	0.594559	6.4100e-003	0.0583	0.0490	3.5000e-004		4.4300e-003	4.4300e-003		4.4300e-003	4.4300e-003		69.9482	69.9482	1.3400e-003	1.2800e-003	70.3638
Strip Mall	0.0365803	3.9000e-004	3.5900e-003	3.0100e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004		4.3036	4.3036	8.0000e-005	8.0000e-005	4.3291
Strip Mall	0.0497441	5.4000e-004	4.8800e-003	4.1000e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		5.8523	5.8523	1.1000e-004	1.1000e-004	5.8870
Total		**0.0513**	**0.4422**	**0.2159**	**2.8000e-003**		**0.0354**	**0.0354**		**0.0354**	**0.0354**		**559.4417**	**559.4417**	**0.0107**	**0.0103**	**562.7662**

6.0 Area Detail

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	lb/day										lb/day					
Mitigated	4.1457	1.3244	11.2816	8.2300e-003		0.1562	0.1562		0.1562	0.1562	0.0000	1,551.0983	1,551.0983	0.0483	0.0281	1,560.6730
Unmitigated	4.1457	1.3244	11.2816	8.2300e-003		0.1562	0.1562		0.1562	0.1562	0.0000	1,551.0983	1,551.0983	0.0483	0.0281	1,560.6730

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	lb/day										lb/day					
Architectural Coating	0.5497					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.1269					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1404	1.1999	0.5106	7.6600e-003		0.0970	0.0970		0.0970	0.0970	0.0000	1,531.7647	1,531.7647	0.0294	0.0281	1,540.8672
Landscaping	0.3286	0.1246	10.7711	5.7000e-004		0.0592	0.0592		0.0592	0.0592		19.3336	19.3336	0.0189		19.8058
Total	**4.1457**	**1.3244**	**11.2816**	**8.2300e-003**		**0.1562**	**0.1562**		**0.1562**	**0.1562**	**0.0000**	**1,551.0983**	**1,551.0983**	**0.0483**	**0.0281**	**1,560.6731**

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	lb/day										lb/day					
Architectural Coating	0.5497					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.1269					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1404	1.1999	0.5106	7.6600e-003		0.0970	0.0970		0.0970	0.0970	0.0000	1,531.7647	1,531.7647	0.0294	0.0281	1,540.8672
Landscaping	0.3286	0.1246	10.7711	5.7000e-004		0.0592	0.0592		0.0592	0.0592		19.3336	19.3336	0.0189		19.8058
Total	**4.1457**	**1.3244**	**11.2816**	**8.2300e-003**		**0.1562**	**0.1562**		**0.1562**	**0.1562**	**0.0000**	**1,551.0983**	**1,551.0983**	**0.0483**	**0.0281**	**1,560.6731**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

2305 Webster Street
Project Parameters

Parameter	Previous Amount	New Amount	Unit	
Site Acres	0.3		acres	
Parking	4		levels	
Parking	88	84	spaces	
Residential	124	130	dwelling units	based on Trip Generation table
Residential	177459		sf	
Retail	3	2.892	ksf	
Residential Support	8.745		ksf	
Transitional (amenity/res/mech)	7.865		ksf	
Assume half amen/res	3.9325		ksf	
GP & Zoned	D-BV-2 Retail Zone			
No VOC interior paint				
24 month construction				
40,000	cf export			
1,481	cy export			

2305 Webster Street Mixed-Use Project
Construction Assumptions

Default CalEEMod 2305 Webster Street Construction Assumptions

Construction Phase/Construction Equipment	Work days	Start Date	End Date	Number of Pieces	Hours/Day	Horsepower
Demolition	**10**	**2/5/2018**	**2/16/2018**			
Rubber Tired Dozers				1	1	247
Concrete/Industrial Saws				1	8	81
Tractors/Loaders/Backhoes				3	6	97
Site Preparation	**5**	**2/17/2018**	**2/23/2018**			
Graders				1	8	187
Rubber Tired Dozers				1	7	247
Tractors/Loaders/Backhoes				1	8	97
Grading	**9**	**2/24/2018**	**3/8/2018**			
Rubber Tired Dozers				1	6	247
Graders				1	6	187
Tractors/Loaders/Backhoes				1	7	97
Building Construction	**430**	**3/9/2018**	**10/31/2019**			
Cranes				1	6	231
Forklifts				1	6	89
Tractors/Loaders/Backhoes				1	6	97
Generator Sets				1	8	84
Welders				3	8	46
Paving	**22**	**11/1/2019**	**12/2/2019**			
Pavers				1	6	130
Cement and Mortar Mixers				1	6	9
Rollers				1	7	80
Paving Equipment				1	8	132
Tractors/Loaders/Backhoes				1	7	97
Architectural Coating	**22**	**12/3/2019**	**1/1/2020**			
Air Compressors				1	6	78

Note: Based on a 0.3-acre site; Default assumptions from CalEEMod Appendix D Table 3.1 and 3.2

Construction Phase	Default Work Days	Percent	2305 Webster
Demo	10	8.1%	43
Grading	2	1.6%	9
Bldg Const	100	81.3%	430
Arch Coating	5	4.1%	22
Site Prep	1	0.8%	5
Paving	5	4.1%	22
Total	123	100%	528

Note: CalEEMod Appendix D Table 3.1 for >0 acre project

Assumes proposed project would last 24 months @ 22 work days/month

2305 Webster
Demolition Assumptions

Category	Amount	Units
Site Size	0.3	acres
	13,068	sf
Depth of Concrete Removed	1	ft
Total Demolition	13,068	cf
Density of Concrete	150	lbs/cf
Demolition Weight	**980.10**	**tons**

New Trip Rates

Land Use	Units1	ITE Code	Daily	Weekday AM Peak Hour			Weekday PM Peak Hour			Daily Trips after reduction	Daily Unit Trips
				In	Out	Total	In	Out	Total		
Residential	130 DU	220	910	13	54	67	58	31	89	519	3.99
Retail	3.0 KSF	820	130	2	1	3	5	6	11	74	10.69264069
Subtotal			1,040	15	55	70	63	37	100		
Non-Auto Reduction (-43%)			-447	-6	-24	-30	-27	-16	-43		
Net New Project Trips			593	9	31	40	36	21	57		

Unmitigated

Construction Phase	Tons/Year			
	ROG	NO_x	PM_{10} (exhaust)	$PM_{2.5}$ (exhaust)
2018 Total Emissions	0.36	2.5	0.13	0.12
2019 Total Emissions	1.27	2.21	0.11	0.11
2020 Total Emissions	0.05	0.0009	0.00006	0.00006
Total Construction Emissions	**1.68**	**4.71**	**0.24**	**0.23**
Average Daily Emissions (lbs/day)[1]	6.4	17.8	0.9	0.9
Significance Threshold (lbs/day)	**54**	**54**	**82**	**54**
Exceeds Significance Threshold?	No	No	No	No

Notes:

[1]`Calculated by dividing the total pounds of emissions by the total 528 working days of construction for the duration of construction (2018-2020).

Calculations use unrounded totals.

lbs = pounds ROG = reactive organic gases NO_X = oxides of nitrogen

PM_{10} = particulate matter with aerodynamic diameter less than 10 microns in diameter
$PM_{2.5}$ = particulate matter with aerodynamic diameter less than 2.5 microns in diameter

Source: CalEEMod and FirstCarbon Solutions, see Appendix A

Tier IV mitigation

Construction Phase	Tons/Year			
	ROG	NO_x	PM_{10} (exhaust)	$PM_{2.5}$ (exhaust)
2018 Total Emissions	0.098	0.806	0.0067	0.0065
2019 Total Emissions	1.05	0.757	0.0063	0.0061
2020 Total Emissions	0.046	0.00009	0	0
Total Construction Emissions	**1.19**	**1.56**	**0.01**	**0.01**
Average Daily Emissions (lbs/day)[1]	4.5	5.9	0.0	0.0
Significance Threshold (lbs/day)	**54**	**54**	**82**	**54**
Exceeds Significance Threshold?	No	No	No	No

Notes:

[1]`Calculated by dividing the total pounds of emissions by the total 528 working days of construction for the duration of construction (2018-2020).

Calculations use unrounded totals.

lbs = pounds ROG = reactive organic gases NO_X = oxides of nitrogen

PM_{10} = particulate matter with aerodynamic diameter less than 10 microns in diameter
$PM_{2.5}$ = particulate matter with aerodynamic diameter less than 2.5 microns in diameter

Source: CalEEMod and FirstCarbon Solutions, see Appendix A

Updated both number and correct the total working days

unmitigated

Annual

Emissions Source[2]	tons/yr			
	ROG	NO_x	PM_{10} (exhaust)	$PM_{2.5}$ (exhaust)
Area	0.7	0.018	0.0056	0.0059
Energy	0.009	0.081	0.0065	0.0065
Mobile	0.2	1.3	0.0088	0.0083
Total	*0.9*	*1.4*	*0.0*	*0.0*
Thresholds of Significance	**10**	**10**	**15**	**10**
Exceeds Significance Threshold?	No	No	No	No
Average Daily Operational Emissions	*4.98*	*7.67*	*0.11*	*0.11*
Thresholds of Significance	**54**	**54**	**82**	**54**
Exceeds Significance Threshold?	No	No	No	No

Notes:

ROG = reactive organic gases NO_x = oxides of nitrogen PM_{10} = particulate matter 10 microns or less in diameter $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

[1.] For each source, the maximum emissions between summer and winter are shown.

Source: CalEEMod and FirstCarbon Solutions, see Appendix A

unmitigated cosntruction

Construction Phase	CO2e (MT CO_2e/year)	CO2e (MT CO2e/yr/service population)
2018 Total Emissions	382	1.08
2019 Total Emissoins	393	1.11
2021 Total Emissions	0.21	0.00
Total Construction Emissions	775	2.18
Construction Threshold[1]	1,100	4.6
Exceed Threshold?	No	No

Notes:

MT CO_2e = metric tons of carbon dioxide equivalent

service population: The service population is the total number of employees and residents of a proposed project. Using CalEEMod construction run default number--355 as service population.

Total calculated using unrounded numbers.

[1] Construction-related threshold was obtained from SMAQMD's CEQA Guidelines.

Source: CalEEMod and FirstCarbon Solutions; see Appendix A, SMAQMD 2015.

unmitigated operational

Source	CO2e (MT CO_2e/year)	CO2e (MT CO2e/yr/service population)
Construction (total of 816.2 MT/year which would be amortized over 30 years)	25.8	0.07
Operation-Area	9.4	0.03
Operation-Energy	372	1.05
Operation-Mobile	670	1.89
Operation-Waste	59	0.17
Operation-Water	34	0.10
Total Construction Emissions	1170	3.3
City of Oakland's Thresholds	1,100	4.489
Exceed Threshold?	Yes	No

Notes:

MT CO_2e = metric tons of carbon dioxide equivalent

service population: The service population is the total number of employees and residents of a proposed project. Using CalEEMod construction run default number--355 as service population.

Total calculated using unrounded numbers.

[1] GHG operational threshold was obtained from City of Oakland, based on the 24th report.

Source: CalEEMod and FirstCarbon Solutions; see Appendix A,

Average GHG emissions from the project backup generator

Source	CO2e [a] (Metric Tons/Year)
Project Backup Generator	28.6
City of Oakland's Threshold	10000
Threshold Exceedance?	**No**
a CO2e – Carbon dioxide equivalents	
Source: Baseline Environmental Consulting, 2016.	

Source	Cancer Risk (risk per million)	Chronic Non-Cancer Hazard Index[2]	Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Risks and Hazards at the Maximum Impacted Sensitive Receptor (MIR): Infant[1]	3.7	0.003	0.01
Risks and Hazards at the Maximum Impacted Sensitive Receptor (MIR): Child[1]	0.5	0.003	0.01
Risks and Hazards at the Maximum Impacted Sensitive Receptor (MIR): Adult[1]	0.1	0.003	0.01
City of Oakland Thresholds of Significance	10	1	0.3
Exceeds Individual Source Threshold?	No	No	No

Notes:

$\mu g/m^3$ = micrograms per cubic meter

[1] Maximum impacted sensitive receptor is a residence located approximately 25 feet west of the project at 2300 Broadway.

[2] Chronic non-cancer hazard index was estimated by dividing the annual DPM concentration (as $PM_{2.5}$ exhaust) by the REL of 5 $\mu g/m^3$.

Source: Appendix A.

Appendix C:
Health Risk Impacts from Project Construction With Mitigation

2035 Webster Street Project: Oakland

Tier IV Mitigation

Construction Annual DPM Emissions (as PM2.5 Exhaust)
Total Construction Duration: 2/5/2018 to 12/31/2019

Construction Scheduling	**2/5/2018-12/31/2018**	
	8	hours/day
	236	days/year
	1888	hours/year
Onsite Construction Area Source Size (m2):	804	

Onsite Construction PM2.5 Emissions

2018	Construction Activity	Onsite Average Annual DPM Exhaust Emissions (tons/year)	Onsite Average Annual DPM Exhaust Emissions (g/sec)	Onsite Average DPM Source Exhaust Emissions (g/m2-sec)
	Demolition	0.00019	0.0000	3.157E-08
	Site Preparation	0.00007	0.0000	1.163E-08
	Grading	0.00010	0.0000	1.662E-08
	Building Construction	0.00321	0.0004	5.334E-07
	Paving	0.00000	0.0000	0.000E+00
	Architectural Coating	0.00000	0.0000	0.000E+00
	Total Onsite Construction Emissions	**3.570E-03**	**4.769E-04**	**5.932E-07**

Offsite Construction Vehicle PM2.5 Emissions

2018 Construction Activity	Offsite Haul Trucks Annual DPM Exhaust Emissions (tons/year)	Offsite Vendor Trucks Annual DPM Exhaust Emissions (tons/year)	Offsite Worker Vehicles Annual DPM Exhaust Emissions (tons/year)
Demolition	0.00006	0.00000	0.00000
Site Preparation	0.00011	0.00000	0.00000
Grading	0.00000	0.00000	0.00000
Building Construction	0.00000	0.00215	0.00064
Paving	0.00000	0.00000	0.00000
Architectural Coating	0.00000	0.00000	0.00000
Total (tons/year)	**1.700E-04**	**2.150E-03**	**6.400E-04**
Default Trip Distance assumed in CalEEMod (mi)	20.0	7.3	12.4
Offsite Project Trip Distance Project>Webster St>Broadway>27th St>I980 (mi)	0.652	0.652	0.652
Offsite Project Emissions Project>Webster St>Broadway>27th St>I980 (tons/year)	**5.544E-06**	**1.921E-04**	**3.367E-05**

Total Offsite Project Exhaust Emissions (tons/year)	**2.313E-04**
Total Offsite Project Exhaust Emissions (grams/sec)	**3.09023E-05**

Total PM@2.5 Exhaust (tons/year)	**3.801E-03**

2035 Webster Street Project: Oakland

Tier IV Mitigation **Sensitive Receptors** **2018**

Estimates of Annual Construction DPM

Annual Average Onsite DPM Exhaust Emission Rate: 5.932E-07 grams/m2/sec
Annual Average Offsite DPM Exhaust Emission Rate: 3.090E-05 grams/sec

X (m)	Y (m)	Onsite Annual DPM Exhaust w/Unit Emissions (ug/m3)	Onsite Annual DPM Exhaust w/Actual Emissions (ug/m3)	Offsite Annual DPM Exhaust w/Unit Emissions (ug/m3)	Offsite Annual DPM Exhaust w/Actual Emissions (ug/m3)	Total DPM (ug/m3)
564634	4185240	2.170E-01	1.287E-02	9.000E-05	2.781E-04	1.315E-02
564683.8	4185197	2.153E-01	1.277E-02	2.000E-05	6.180E-05	1.283E-02
564744	4185305	6.425E-02	3.811E-03	2.000E-05	6.180E-05	3.873E-03
564613.5	4185342	2.395E-02	1.421E-03	3.000E-05	9.271E-05	1.513E-03
564807.6	4185311	3.499E-02	2.076E-03	1.000E-05	3.090E-05	2.106E-03
564784.3	4185352	2.306E-02	1.368E-03	2.000E-05	6.180E-05	1.430E-03
564774.9	4185351	2.431E-02	1.442E-03	2.000E-05	6.180E-05	1.504E-03
564768.9	4185354	2.374E-02	1.408E-03	2.000E-05	6.180E-05	1.470E-03
564757.7	4185358	2.309E-02	1.370E-03	3.000E-05	9.271E-05	1.462E-03
564825.2	4185307	3.180E-02	1.886E-03	1.000E-05	3.090E-05	1.917E-03
564837.6	4185304	2.961E-02	1.756E-03	1.000E-05	3.090E-05	1.787E-03
564546.1	4185202	1.167E-02	6.923E-04	1.000E-05	3.090E-05	7.232E-04

2035 Webster Street Project: Oakland

Tier IV Mitigation

Construction Annual DPM Emissions (as PM2.5 Exhaust)
Total Construction Duration: 2/5/2018 to 12/31/2019

Construction Scheduling	**1/2/2019-12/31/2019**	
	8	hours/day
	260	days/year
	2080	hours/year
Onsite Construction Area Source Size (m2):	804	

Onsite Construction PM2.5 Emissions

2019	Construction Activity	Onsite Average Annual DPM Exhaust Emissions (tons/year)	Onsite Average Annual DPM Exhaust Emissions (g/sec)	Onsite Average DPM Source Exhaust Emissions (g/m2-sec)
	Demolition	0.00000	0.0000	0.000E+00
	Site Preparation	0.00000	0.0000	0.000E+00
	Grading	0.00000	0.0000	0.000E+00
	Building Construction	0.00330	0.0004	4.977E-07
	Paving	0.00023	0.0000	3.469E-08
	Architectural Coating	0.00004	0.0000	6.033E-09
	Total Onsite Construction Emissions	**3.570E-03**	**4.329E-04**	**5.384E-07**

Offsite Construction Vehicle PM2.5 Emissions

2019 Construction Activity	Offsite Haul Trucks Annual DPM Exhaust Emissions (tons/year)	Offsite Vendor Trucks Annual DPM Exhaust Emissions (tons/year)	Offsite Worker Vehicles Annual DPM Exhaust Emissions (tons/year)
Demolition	0.00000	0.00000	0.00000
Site Preparation	0.00000	0.00000	0.00000
Grading	0.00000	0.00000	0.00000
Building Construction	0.00000	0.00187	0.00065
Paving	0.00000	0.00000	0.00001
Architectural Coating	0.00000	0.00000	0.00001
Total (tons/year)	**0.000E+00**	**1.870E-03**	**6.700E-04**
Trip Distance assumed in CalEEMod (mi)	20.0	7.3	12.4
Offsite Project Trip Distance Project>Webster St>Broadway>27th St>I980 (mi)	0.652	0.652	0.652
Offsite Project Emissions Project>Webster St>Broadway>27th St>I980 (tons/year)	**0.000E+00**	**1.671E-04**	**3.524E-05**

Total Offsite Project Exhaust Emissions (tons/year)	**2.023E-04**
Total Offsite Project Exhaust Emissions (grams/sec)	**2.4535E-05**

Total PM@2.5 Exhaust (tons/year)	**3.772E-03**

2035 Webster Street Project: Oakland **Tier IV Mitigation** **Sensitive Receptors** **2019**

Estimates of Annual Construction DPM

Annual Average Onsite DPM Exhaust Emission Rate: 5.384E-07 grams/m2/sec
Annual Average Offsite DPM Exhaust Emission Rate: 2.454E-05 grams/sec

X (m)	Y (m)	Onsite Annual DPM Exhaust w/Unit Emissions (ug/m3)	Onsite Annual DPM Exhaust w/Actual Emissions (ug/m3)	Offsite Annual DPM Exhaust w/Unit Emissions (ug/m3)	Offsite Annual DPM Exhaust w/Actual Emissions (ug/m3)	Total DPM (ug/m3)
564634	4185240	0.21703	0.01169	0.00009	2.20815E-04	0.01191
564683.8	4185197	0.21532	0.01159	0.00002	4.90700E-05	0.01164
564744	4185305	0.06425	0.00346	0.00002	4.90700E-05	0.00351
564613.5	4185342	0.02395	0.00129	0.00003	7.36050E-05	0.00136
564807.6	4185311	0.03499	0.00188	0.00001	2.45350E-05	0.00191
564784.3	4185352	0.02306	0.00124	0.00002	4.90700E-05	0.00129
564774.9	4185351	0.02431	0.00131	0.00002	4.90700E-05	0.00136
564768.9	4185354	0.02374	0.00128	0.00002	4.90700E-05	0.00133
564757.7	4185358	0.02309	0.00124	0.00003	7.36050E-05	0.00132
564825.2	4185307	0.0318	0.00171	0.00001	2.45350E-05	0.00174
564837.6	4185304	0.02961	0.00159	0.00001	2.45350E-05	0.00162
564546.1	4185202	0.01167	0.00063	0.00001	2.45350E-05	0.00065

2035 Webster Street Project: Oakland **Tier IV Mitigation**

Estimated Cancer Risks from Construction DPM - Infant Receptors

Cancer Unit Risk Factor:		3rd Trimester 2018 $(ug/m3)^{-1}$	Year 1 2018 $(ug/m3)^{-1}$	Year 2 2019 $(ug/m3)^{-1}$	
		11.6	139.6	139.6	
X (m)	**Y (m)**	**3rd Trimester 2018 Cancer riskRisk (/million)**	**Year 1 2018 Cancer risk (/million)**	**Year 2 2019 Cancer risk (/million)**	**Total Cancer Risk (/million)**
564633.96	4185239.97	0.2	1.8	1.7	3.7
564683.78	4185196.72	0.1	1.8	1.6	3.6
564744.02	4185305.24	0.0	0.5	0.5	1.1
564613.49	4185342.32	0.0	0.2	0.2	0.4
564807.56	4185311.46	0.0	0.3	0.3	0.6
564784.32	4185352.33	0.0	0.2	0.2	0.4
564774.94	4185351.2	0.0	0.2	0.2	0.4
564768.94	4185354.2	0.0	0.2	0.2	0.4
564757.69	4185358.33	0.0	0.2	0.2	0.4
564825.19	4185307.33	0.0	0.3	0.2	0.5
564837.56	4185304.33	0.0	0.2	0.2	0.5
564546.12	4185202.34	0.0	0.1	0.1	0.2

2035 Webster Street Project: Oakland

Cancer Risk Impacts from Construction at the Maximum Impacted Sensitive Receptor - Infant

Cancer Potency Factor:	1.1	$(mg/kg\text{-}day)^{-1}$
Exposure Frequency	350	days/year
Averaging Period	25550	days

Year	DPM Concentration (ug/m3)	Age Sensitivty Factor	Daily Breathing Rate (L/kg-day)	Time At Home Factor	Exposure Duration (years)	Unit Cancer Risk (/million)
3rd Trimester (2018)	1	10	361	0.85	0.25	11.6
1 (2018)	1	10	1090	0.85	1	139.6
2 (2019)	1	10	1090	0.85	1	139.6

2035 Webster Street Project: Oakland

Tier IV Mitigation

Estimated Cancer Risks from Construction DPM - Child Receptor

Cancer Unit Risk Factor:	Year 1 (2018) $(ug/m3)^{-1}$	Year 2 (2019) $(ug/m3)^{-1}$
	18.9	18.9

X (m)	Y (m)	Year 1 (2018) Cancer riskRisk (/million)	Year 2 (2019) Cancer riskRisk (/million)	Total Cancer Risk (/million)
564633.96	4185239.97	0.2	0.2	0.5
564683.78	4185196.72	0.2	0.2	0.5
564744.02	4185305.24	0.1	0.1	0.1
564613.49	4185342.32	0.0	0.0	0.1
564807.56	4185311.46	0.0	0.0	0.1
564784.32	4185352.33	0.0	0.0	0.1
564774.94	4185351.2	0.0	0.0	0.1
564768.94	4185354.2	0.0	0.0	0.1
564757.69	4185358.33	0.0	0.0	0.1
564825.19	4185307.33	0.0	0.0	0.1
564837.56	4185304.33	0.0	0.0	0.1
564546.12	4185202.34	0.0	0.0	0.0

2035 Webster Street Project: Oakland

Cancer Risk Impacts from Construction at the Maximum Impacted Sensitive Receptor - Child

Cancer Potency Factor:	1.1	$(mg/kg\text{-}day)^{-1}$
Exposure Frequency	350	days/year
Averaging Period	25550	days

Year	DPM Concentration (ug/m3)	Age Sensitivty Factor	Daily Breathing Rate (L/kg-day)	Time At Home Factor	Exposure Duration (years)	Unit Cancer Risk (/million)
1(2018)	1	3	572	0.73	1	18.9
2 (2019)	1	3	572	0.73	1	18.9

2035 Webster Street Project: Oakland

Tier IV Mitigation

Estimated Cancer Risks from Construction DPM - Adult Receptors

Cancer Unit Risk Factor:	Year 1 (2018) $(ug/m3)^{-1}$	Year 2 (2019) $(ug/m3)^{-1}$
	2.8	2.8

X (m)	Y (m)	Year 1 (2018) Cancer Risk (/million)	Year 2 (2019) Cancer Risk (/million)	Total Cancer Risk (/million)
564633.96	4185239.97	0.0	0.0	0.1
564683.78	4185196.72	0.0	0.0	0.1
564744.02	4185305.24	0.0	0.0	0.0
564613.49	4185342.32	0.0	0.0	0.0
564807.56	4185311.46	0.0	0.0	0.0
564784.32	4185352.33	0.0	0.0	0.0
564774.94	4185351.2	0.0	0.0	0.0
564768.94	4185354.2	0.0	0.0	0.0
564757.69	4185358.33	0.0	0.0	0.0
564825.19	4185307.33	0.0	0.0	0.0
564837.56	4185304.33	0.0	0.0	0.0
564546.12	4185202.34	0.0	0.0	0.0

2035 Webster Street Project: Oakland

Cancer Risk Impacts from Construction at the Maximum Impacted Sensitive Receptor - Adult

Cancer Potency Factor:	1.1	$(mg/kg\text{-}day)^{-1}$
Exposure Frequency	350	days/year
Averaging Period	25550	days

Year	DPM Concentration (ug/m3)	Age Sensitivty Factor	Daily Breathing Rate (L/kg-day)	Time At Home Factor	Exposure Duration (years)	Unit Cancer Risk (/million)
1 (2018)	1	1	261	0.72	1	2.8
2 (2019)	1	1	261	0.72	1	2.8

2035 Webster Street Project: Oakland

Tier IV Mitigation

Estimated Chronic Non-Cancer Hazard Index from Construction DPM

Reference Exposure Level for DPM: 5 ug/m3

X (m)	Y (m)	Year 1 (2018) Annual PM2.5 (ug/m3)	Year 2 (2019) Annual PM2.5 (ug/m3)	Max Annual PM2.5 (ug/m3)	Chronic Non-Cancer Hazard Index
564633.96	4185239.97	0.01315	0.01191	0.01315	0.00263
564683.78	4185196.72	0.01283	0.01164	0.01283	0.00257
564744.02	4185305.24	0.00387	0.00351	0.00387	0.00077
564613.49	4185342.32	0.00151	0.00136	0.00151	0.00030
564807.56	4185311.46	0.00211	0.00191	0.00211	0.00042
564784.32	4185352.33	0.00143	0.00129	0.00143	0.00029
564774.94	4185351.2	0.00150	0.00136	0.00150	0.00030
564768.94	4185354.2	0.00147	0.00133	0.00147	0.00029
564757.69	4185358.33	0.00146	0.00132	0.00146	0.00029
564825.19	4185307.33	0.00192	0.00174	0.00192	0.00038
564837.56	4185304.33	0.00179	0.00162	0.00179	0.00036
564546.12	4185202.34	0.00072	0.00065	0.00072	0.00014

Appendix D:
Health Risk Impacts from Project Operation

2305 Webster Street Operational DPM and Health Risks and Hazards
Backup Emergency Generator

Plant #:
Plant Name: 2350 Webster Mixed Use Project
Number of Sources: 1 Diesel Backup Emergency Generator

Calculation of Cancer Risks, Chronic Non-cancer Hazard Index, and Annual PM2.5 from Project TAC Diesel Generator

Assumption: the base cancer risk (risk estimated by the BAAQMD Stationary Source Tool for diesel generators uncorrected for distance) should not exceed 10 in one million
According to the calculation of cancer risks (Cancer Risk Tab), a DPM emisson rate of 0.00945 pounds/day results in a base cancer risk of 10 in one million (uncorrected for distance)

Distance to MIR (feet)	Distance Multiplier	Base Cancer Risk (/million)	Distance Adjusted Cancer risk (/million)	Guidance Adjusted Cancer Risk (/million	Base Annual PM2.5 (ug/m3)	Distance Adjusted Annual PM2.5 (ug/m3)	Base Chronic Hazard Index	Distance Adjusted Chronic Hazard Index
85	0.85	10	8.5	9.5	0.0182	0.0155	0.0036	0.003

The Guidance adjustment for cancer risk is 1.12 x the Risk from the Stationary Source Tool

Pollutant Name	Emissions/lbs per day	Carcinogen Trigger Level (lbs/yr)	Cancer Risk (in millions)
PARTICULATE EMISSIONS FROM DIESEL-FUELED ENGINES	9.45E-03	3.44E-01	1.00E-05
	TOTAL:		1.00E-05

Pollutant Name	Emission/lbs per day	Non-Carcinogen Chronic Trigger Level (lbs/yr)	Chronic Hazard
PARTICULATE EMISSIONS FROM DIESEL-FUELED ENGINES	0.00945	1.93E+02	0.003567901
	TOTAL:		3.57E-03

Diesel PM Concentrations	Emissions (lbs/day)	PM2.5 Concentration (ug/m3)
	9.45E-03	0.018246533
TOTAL:		0.018246533

Appendix E: Cumulative Health Risk Impacts

Attachment E: Cumulative Health Risk Impacts

Health Impacts: Existing and Future TAC Sources ……1

Health Impacts for Roadway TAC Sources ……..……..2

2305 Webster Street Operational DPM and Health Risks and Hazards

Calculation of Cancer Risks, Chronic Non-cancer Hazard Index, and Annual PM2.5 from Future TAC Diesel Generators

Assumption: the base cancer risk (risk estimated by the BAAQMD Stationary Source Tool for diesel generators uncorrected for distance) should not exceed 10 in one million

According to the calculation of cancer risks (Cancer Risk Tab), a DPM emisson rate of 0.00945 pounds/day results in a cancer risk of 10 in one million (uncorrected for distance)
According to the calculation of chronic noncancer hazard index (Chronic Tab), a DPM emission rate of 0.00945 pounds/day results in a non-cancer hazard index of 0.0036 (uncorrected for distance)
According to the calculation of PM2.5 (PM2.5 Tab), a DPM emission rate of 0.00945 pounds/day results in an annual PM2.5 concentration of 0.0182 ug/m3 (uncorrected for distance)
The calculated base cancer risks, hazard index, and PM2.5 are adjusted for distance from the source to the project using the BAAQMD Diesel Internal Combustion Engine Distance Multiplier Tool
The distance adjusted cancer risks hazard are adjusted further to acount for the differences between the cancer risk guidance used in the Stationary Source Tool and the new BAAQMD NSR cancer risk guidance
The Guidance adjustment for cancer risk is 1.12 x the Risk from the Stationary Source Tool

Future TAC Diesel Generators	Distance to MIR (feet)	Distance Multiplier	Base Cancer Risk (/million)	Distance Adjusted Cancer risk (/million)	Guidance Adjusted Cancer Risk (/million	Base Annual PM2.5 (ug/m3)	Distance Adjusted Annual PM2.5 (ug/m3)	Base Chronic Hazard Index	Distance Adjusted Chronic Hazard Index
2400 Valdez Street	923	0.04	10	0.4	0.4	0.0182	0.0007	0.036	0.001
2302 Valdez Street	619	0.09	10	0.9	1.0	0.0182	0.0016	0.036	0.003
2345 Broadway	391	0.18	10	1.8	2.0	0.0182	0.0033	0.036	0.006
2425 Valdez Street	647	0.09	10	0.9	1.0	0.0182	0.0016	0.036	0.003
24th and Harrison Streets	903	0.05	10	0.5	0.6	0.0182	0.0009	0.036	0.002
2270 Broadway	115	0.64	10	6.4	7.2	0.0182	0.0116	0.036	0.023
2315 Valdez Street	495	0.12	10	1.2	1.3	0.0182	0.0022	0.036	0.004

Calculation of Cancer Risks, Chronic Non-cancer Hazard Index, and Annual PM2.5 from Existing TAC Diesel Generators

Existing TAC Diesel Generators	Distance to MIR (feet)	Distance Multiplier	Base Cancer Risk (/million)	Distance Adjusted Cancer risk (/million)	Guidance Adjusted Cancer Risk (/million	Base Annual PM2.5 (ug/m3)	Distance Adjusted Annual PM2.5 (ug/m3)	Base Chronic Hazard Index	Distance Adjusted Chronic Hazard Index
Caltrans (14195)	264	0.28	55	15.4	17.2	0.1	0.028	0.02	0.0056
Essex Portfolio (19971)	274	0.28	16.3	4.6	5.1	0.004	0.00112	0.006	0.00168
CalSTRS (16640)	591	0.09	26.4	2.4	2.7	0.047	0.00423	0.009	0.00081
Brandywine Realty Trust (19467)	670	0.08	18.8	1.5	1.7	0.004	0.00032	0.007	0.00056
Insite Connect, LLC (19104)	879	0.05	19.6	1.0	1.1	0.035	0.00175	0.007	0.00035
Catholic Cathedral (18451)	1000	0.04	0.68	0.0	0.0	0.0007	0.000028	0.0002	0.000008

The estimated cancer risks, hazard index, and PM2.5 are adjusted for distance from the source to the project using the BAAQMD Diesel Internal Combustion Engine Distance Multiplier Tool
The distance adjusted cancer risks are adjusted further to acount for the differences between the cancer risk guidance used in the Stationary Source Tool and the new BAAQMD NSR cancer risk guidance
The Guidance adjustment for cancer risk is 1.12 x the Risk from the Stationary Source Tool

Bay Area Air Quality Management District

Roadway Screening Analysis Calculator

County specific tables containing estimates of risk and hazard impacts from roadways in the Bay Area.

INSTRUCTIONS:

Input the site-specific characteristics of your project by using the drop down menu in the "Search Parameter" box. We recommend that this analysis be used for roadways with 10,000 AADT and above.

• County: Select the County where the project is located. The calculator is only applicable for projects within the nine Bay Area counties.

• Roadway Direction: Select the orientation that best matches the roadway. If the roadway orientation is neither clearly north-south nor east-west, use the highest values predicted from either orientation.

• Side of the Roadway: Identify on which side of the roadway the project is located.

• Distance from Roadway: Enter the distance in feet from the nearest edge of the roadway to the project site. The calculator estimates values for distances greater than 10 feet and less than 1000 feet. For distances greater than 1000 feet, the user can choose to extrapolate values using a distribution curve or apply 1000 feet values for greater distances.

• Annual Average Daily Traffic (ADT): Enter the annual average daily traffic on the roadway. These data may be collected from the city or the county (if the area is unincorporated).

When the user has completed the data entries, the screening level PM2.5 annual average concentration and the cancer risk results will appear in the Results Box on the right. Please note that the roadway tool is not applicable for California State Highways and the District refers the user to the Highway Screening Analysis Tool at: http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx.

Notes and References listed below the Search Boxes

Search Parameters

County	Alameda	
Roadway Direction	North-South	
Side of the Roadway	East	
Distance from Roadway	129	feet
Annual Average Daily Traffic (ADT)	30,200	

Results

Alameda County

Broadway, Oakland

NORTH-SOUTH DIRECTIONAL ROADWAY

PM2.5 annual average

0.236 ($\mu g/m^3$)

Cancer Risk

12.05 (per million)

BAAQMD Guidance Corrected Cancer Risk:	13.5 per million

Data for Alameda County based on meteorological data collected from Pleasanton in 2005

Notes and References:

1. Emissions were developed using EMFAC2011 for fleet mix in 2014 assuming 10,000 AADT and includes impacts from diesel and gasoline vehicle exhaust, brake and tire wear, and resuspended dust.
2. Roadways were modeled using CALINE4 air dispersion model assuming a source length of one kilometer. Meteorological data used to estimate the screening values are noted at the bottom of the "Results" box.
3. Cancer risks were estimated for 70 year lifetime exposure starting in 2014 that includes sensitivity values for early life exposures and OEHHA toxicity values adopted in 2013.

Bay Area Air Quality Management District

Roadway Screening Analysis Calculator

County specific tables containing estimates of risk and hazard impacts from roadways in the Bay Area.

INSTRUCTIONS:

Input the site-specific characteristics of your project by using the drop down menu in the "Search Parameter" box. We recommend that this analysis be used for roadways with 10,000 AADT and above.

• County: Select the County where the project is located. The calculator is only applicable for projects within the nine Bay Area counties.

• Roadway Direction: Select the orientation that best matches the roadway. If the roadway orientation is neither clearly north-south nor east-west, use the highest values predicted from either orientation.

• Side of the Roadway: Identify on which side of the roadway the project is located.

• Distance from Roadway: Enter the distance in feet from the nearest edge of the roadway to the project site. The calculator estimates values for distances greater than 10 feet and less than 1000 feet. For distances greater than 1000 feet, the user can choose to extrapolate values using a distribution curve or apply 1000 feet values for greater distances.

• Annual Average Daily Traffic (ADT): Enter the annual average daily traffic on the roadway. These data may be collected from the city or the county (if the area is unincorporated).

When the user has completed the data entries, the screening level PM2.5 annual average concentration and the cancer risk results will appear in the Results Box on the right. Please note that the roadway tool is not applicable for California State Highways and the District refers the user to the Highway Screening Analysis Tool at: http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx.

Notes and References listed below the Search Boxes

Search Parameters

County	Alameda
Roadway Direction	East-West
Side of the Roadway	North
Distance from Roadway	278 feet
Annual Average Daily Traffic (ADT)	24,800

Results

Alameda County

Grand Avenue, Oakland

EAST-WEST DIRECTIONAL ROADWAY

PM2.5 annual average

0.103 ($\mu g/m^3$)

Cancer Risk

5.59 (per million)

BAAQMD Guidance Adjusted Cancer Risk	6.3 /million

Data for Alameda County based on meteorological data collected from Pleasanton in 2005

Notes and References:

1. Emissions were developed using EMFAC2011 for fleet mix in 2014 assuming 10,000 AADT and includes impacts from diesel and gasoline vehicle exhaust, brake and tire wear, and resuspended dust.
2. Roadways were modeled using CALINE4 air dispersion model assuming a source length of one kilometer. Meteorological data used to estimate the screening values are noted at the bottom of the "Results" box.
3. Cancer risks were estimated for 70 year lifetime exposure starting in 2014 that includes sensitivity values for early life exposures and OEHHA toxicity values adopted in 2013.

Bay Area Air Quality Management District

Roadway Screening Analysis Calculator

County specific tables containing estimates of risk and hazard impacts from roadways in the Bay Area.

INSTRUCTIONS:

Input the site-specific characteristics of your project by using the drop down menu in the "Search Parameter" box. We recommend that this analysis be used for roadways with 10,000 AADT and above.

• County: Select the County where the project is located. The calculator is only applicable for projects within the nine Bay Area counties.

• Roadway Direction: Select the orientation that best matches the roadway. If the roadway orientation is neither clearly north-south nor east-west, use the highest values predicted from either orientation.

• Side of the Roadway: Identify on which side of the roadway the project is located.

• Distance from Roadway: Enter the distance in feet from the nearest edge of the roadway to the project site. The calculator estimates values for distances greater than 10 feet and less than 1000 feet. For distances greater than 1000 feet, the user can choose to extrapolate values using a distribution curve or apply 1000 feet values for greater distances.

• Annual Average Daily Traffic (ADT): Enter the annual average daily traffic on the roadway. These data may be collected from the city or the county (if the area is unincorporated).

When the user has completed the data entries, the screening level PM2.5 annual average concentration and the cancer risk results will appear in the Results Box on the right. Please note that the roadway tool is not applicable for California State Highways and the District refers the user to the Highway Screening Analysis Tool at: http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx.

Notes and References listed below the Search Boxes

Search Parameters

County	Alameda	
Roadway Direction	North-South	
Side of the Roadway	West	
Distance from Roadway	1000	feet
Annual Average Daily Traffic (ADT)	24,800	

Results

Alameda County

Harrison Street, Oakland

NORTH-SOUTH DIRECTIONAL ROADWAY

PM2.5 annual average

0.016 ($\mu g/m^3$)

Cancer Risk

0.91 (per million)

BAQMD Guidance Adjusted Cancer Risk 1.0 /million

Data for Alameda County based on meteorological data collected from Pleasanton in 2005

Notes and References:

1. Emissions were developed using EMFAC2011 for fleet mix in 2014 assuming 10,000 AADT and includes impacts from diesel and gasoline vehicle exhaust, brake and tire wear, and resuspended dust.
2. Roadways were modeled using CALINE4 air dispersion model assuming a source length of one kilometer. Meteorological data used to estimate the screening values are noted at the bottom of the "Results" box.
3. Cancer risks were estimated for 70 year lifetime exposure starting in 2014 that includes sensitivity values for early life exposures and OEHHA toxicity values adopted in 2013.

Attachment F:
Cancer Risk Adjustment for BAAQMD Guidance

Cancer Risk Calculation for 1 ug/m3 DPM concentration (assuming constant DPM concentration)

70-year Exposure Duration

Original BAAQMD Guidance http://www.baaqmd.gov/~/media/Files/Engineering/Air%20Toxics%20Programs/hrsa_guidelines.ashx

Year	Year	DPM (ug/m3)	CPF (mg/kg-day)^-1	DBR (l/kg-day)	ED (years)	EF (days)	AT (years)	TAH (%)	ASF	Risk (risk/million)
1	Year 1	1.000	1.1	302	1	350	25550	1	10	45.51
2	Year 2	1.000	1.1	302	1	350	25550	1	10	45.51
3	Year 3	1.000	1.1	302	1	350	25550	1	3	13.65
4	Year 4	1.000	1.1	302	1	350	25550	1	3	13.65
5	Year 5	1.000	1.1	302	1	350	25550	1	3	13.65
6	Year 6	1.000	1.1	302	1	350	25550	1	3	13.65
7	Year 7	1.000	1.1	302	1	350	25550	1	3	13.65
8	Year 8	1.000	1.1	302	1	350	25550	1	3	13.65
9	Year 9	1.000	1.1	302	1	350	25550	1	3	13.65
10	Year 10	1.000	1.1	302	1	350	25550	1	3	13.65
11	Year 11	1.000	1.1	302	1	350	25550	1	3	13.65
12	Year 12	1.000	1.1	302	1	350	25550	1	3	13.65
13	Year 13	1.000	1.1	302	1	350	25550	1	3	13.65
14	Year 14	1.000	1.1	302	1	350	25550	1	3	13.65
15	Year 15	1.000	1.1	302	1	350	25550	1	3	13.65
16	Year 16	1.000	1.1	302	1	350	25550	1	3	13.65
17	Year 17	1.000	1.1	302	1	350	25550	1	1	4.55
18	Year 18	1.000	1.1	302	1	350	25550	1	1	4.55
19	Year 19	1.000	1.1	302	1	350	25550	1	1	4.55
20	Year 20	1.000	1.1	302	1	350	25550	1	1	4.55
21	Year 21	1.000	1.1	302	1	350	25550	1	1	4.55
22	Year 22	1.000	1.1	302	1	350	25550	1	1	4.55
23	Year 23	1.000	1.1	302	1	350	25550	1	1	4.55
24	Year 24	1.000	1.1	302	1	350	25550	1	1	4.55
25	Year 25	1.000	1.1	302	1	350	25550	1	1	4.55
26	Year 26	1.000	1.1	302	1	350	25550	1	1	4.55
27	Year 27	1.000	1.1	302	1	350	25550	1	1	4.55
28	Year 28	1.000	1.1	302	1	350	25550	1	1	4.55
29	Year 29	1.000	1.1	302	1	350	25550	1	1	4.55
30	Year 30	1.000	1.1	302	1	350	25550	1	1	4.55
30 to 70										182.03
									Total	527.88

Cancer Risk Calculation for 1 ug/m3 DPM concentration (assuming constant DPM concentration)

BAAQMD New Guidance Cancer Risk @30 years	BAAQMD Old Guidance Cancer Risk @70 years	Ratio NEW to Old BAAQMD
589.97	527.88	1.12

30-year Exposure Duration
95th/80th % DBR

30-year New BAAQMD Guidance
95th % DBR 2 years and less, 80th % for all older

Year	Year	DPM (ug/m3)	CPF (mg/kg-day)^-1	DBR (l/kg-day)	ED (years)	EF (days)	AT (years)	TAH (%)	ASF	Risk (risk/million)
3rd Trimester	Year 1	1.000	1.1	361	0.25	350	25550	0.85	10	11.56
1	Year 1	1.000	1.1	1090	1	350	25550	0.85	10	139.61
2	Year 2	1.000	1.1	1090	1	350	25550	0.84	10	137.97
3	Year 3	1.000	1.1	572	1	350	25550	0.72	3	18.62
4	Year 4	1.000	1.1	572	1	350	25550	0.72	3	18.62
5	Year 5	1.000	1.1	572	1	350	25550	0.72	3	18.62
6	Year 6	1.000	1.1	572	1	350	25550	0.72	3	18.62
7	Year 7	1.000	1.1	572	1	350	25550	0.72	3	18.62
8	Year 8	1.000	1.1	572	1	350	25550	0.72	3	18.62
9	Year 9	1.000	1.1	572	1	350	25550	0.72	3	18.62
10	Year 10	1.000	1.1	572	1	350	25550	0.72	3	18.62
11	Year 11	1.000	1.1	572	1	350	25550	0.72	3	18.62
12	Year 12	1.000	1.1	572	1	350	25550	0.72	3	18.62
13	Year 13	1.000	1.1	572	1	350	25550	0.72	3	18.62
14	Year 14	1.000	1.1	572	1	350	25550	0.72	3	18.62
15	Year 15	1.000	1.1	572	1	350	25550	0.72	3	18.62
16	Year 16	1.000	1.1	572	1	350	25550	0.72	3	18.62
17	Year 17	1.000	1.1	261	1	350	25550	0.73	1	2.87
18	Year 18	1.000	1.1	261	1	350	25550	0.73	1	2.87
19	Year 19	1.000	1.1	261	1	350	25550	0.73	1	2.87
20	Year 20	1.000	1.1	261	1	350	25550	0.73	1	2.87
21	Year 21	1.000	1.1	261	1	350	25550	0.73	1	2.87
22	Year 22	1.000	1.1	261	1	350	25550	0.73	1	2.87
23	Year 23	1.000	1.1	261	1	350	25550	0.73	1	2.87
24	Year 24	1.000	1.1	261	1	350	25550	0.73	1	2.87
25	Year 25	1.000	1.1	261	1	350	25550	0.73	1	2.87
26	Year 26	1.000	1.1	261	1	350	25550	0.73	1	2.87
27	Year 27	1.000	1.1	261	1	350	25550	0.73	1	2.87
28	Year 28	1.000	1.1	261	1	350	25550	0.73	1	2.87
29	Year 29	1.000	1.1	261	1	350	25550	0.73	1	2.87
30	Year 30	1.000	1.1	261	1	350	25550	0.73	1	2.87
									Total	589.97

http://www.baaqmd.gov/~/media/files/planning-and-research/rules-and-regs/workshops/2016/reg-2-5/hra-guidelines_clean_jan_2016-pdf.pdf?la=en

Attachment H: Cultural Resources Supporting Material for the 2305 Webster Street Mixed Use Residential Project

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NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916) 373-3710
(916) 373-5471 FAX

October 11, 2016

Dana DePietro, Ph.D.
First Carbon Solutions

Sent by: ddepietro@fcs-intl.com

RE: 4886.0001 2305 Webster Street, Alameda County

Dear Mr. DePietro,

Attached is a consultation list of tribes with traditional lands or cultural places located within the boundaries of the above referenced counties. Please note that the intent above reference codes is to mitigate impacts to tribal cultural resources, as defined, for California Environmental Quality Act (CEQA) projects.

As of July 1, 2015, Public Resources Code Sections 21080.3.1 and 21080.3.2 require public agencies to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose mitigating impacts to tribal cultural resources:

> Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section. (Public Resources Code Section 21080.3.1(d))

The law does not preclude agencies from initiating consultation with the tribes that are culturally and traditionally affiliated with their jurisdictions. The NAHC believes that in fact that this is the best practice to ensure that tribes are consulted commensurate with the intent of the law.

In accordance with Public Resources Code Section 21080.3.1(d), formal notification must include a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation. The NAHC believes that agencies should also include with their notification letters information regarding any cultural resources assessment that has been completed on the APE, such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

   - A listing of any and all known cultural resources have already been recorded on or adjacent to the APE;
   - Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
   - If the probability is low, moderate, or high that cultural resources are located in the APE.
   - Whether the records search indicates a low, moderate or high probability that unrecorded cultural resources are located in the potential APE; and

- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

   - Any report that may contain site forms, site significance, and suggested mitigation measurers.

     All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure in accordance with Government Code Section 6254.10.

3. The results of any Sacred Lands File (SFL) check conducted through Native American Heritage Commission. A search of the SFL was completed for the USGS quadrangle information provided returned negative results.

4. Any ethnographic studies conducted for any area including all or part of the potential APE; and

5. Any geotechnical reports regarding all or part of the potential APE.

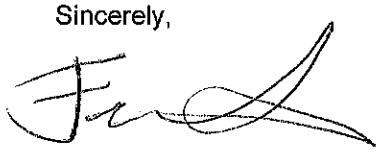
Lead agencies should be aware that records maintained by the NAHC and CHRIS is not exhaustive, and a negative response to these searches does not preclude the existence of a cultural place. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the case that they do, having the information beforehand well help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance we are able to assure that our consultation list contains current information.

If you have any questions, please contact me at my email address: frank.lienert@nahc.ca.gov

Sincerely,



Frank Lienert
Associate Governmental Program Analyst

Native American Heritage Commission
Tribal Consultation List
Alameda County
10/11/2016

Amah MutsunTribal Band of Mission San Juan Bautista
Irenne Zwierlein, Chairperson
789 Canada Road
Woodside, CA, 94062
Phone: (650)400-4806
Fax: (650) 332-1526
amahmutsuntribal@gmail.com

Costanoan

Costanoan Rumsen Carmel Tribe
Tony Cerda, Chairperson
244 E. 1st Street
Pomona, CA, 91766
Phone: (909)629-6081
Fax: (909) 524-8041
rumsen@aol.com

Costanoan

Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
P.O. Box 28
Hollister, CA, 95024
Phone: (831)637-4238
ams@indiancanyon.org

Costanoan

Muwekma Ohlone Indian Tribe of the SF Bay Area
Rosemary Cambra, Chairperson
P.O. Box 360791
Milpitas, CA, 95036
Phone: (408)314-1898
muwekma@muwekma.org

Costanoan

North Valley Yokuts Tribe
Katherine Erolinda Perez, Chairperson
P.O. Box 717
Linden, CA, 95236
Phone: (209)887-3415
canutes@verizon.net

Costanoan
Northern Valley Yokut

The Ohlone Indian Tribe
Andrew Galvan,
P.O. Box 3152
Fremont, CA, 94539
Phone: (510) 882-0527
Fax: (510) 687-9393
chochenyo@AOL.com

Bay Miwok
Costanoan
Patwin
Plains Miwok

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 6097.98 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed 4886.0001 2305 Webster Street, Alameda County.

North America I Europe I Australia I Asia
www.FirstCarbonSolutions.com

Amah Mutsun Tribal Band of Mission San Juan Bautista
Irenne Zwierlein, Chairperson
789 Canada Road, Woodside CA 94062

February 9, 2017

Subject: 2305 Webster Street Mixed Residential Project in Oakland, CA

Dear Irenne Zwierlein,

At the request of the City of Oakland, FirstCarbon Solutions (FCS) is conducting a cultural resources assessment for the 2305 Webster Street Mixed Residential Project (Project) in Oakland, California. The Project encompasses approximately 0.30-acres located at the intersection of Webster Street/23rd Street in downtown Oakland (Assessor's Parcel Number (APN) 8-667-5-3). The site is a rectangular-shaped parcel located in the Broadway Valdez District Specific Plan Area, which is northeast of Uptown Oakland and northwest of Lake Merritt.

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To determine the presence or absence of cultural and historical resources on the proposed project site and in the surrounding ½ mile radius, FCS has conducted a record search at the Northwest Information Center (NWIC) at Sonoma State University. To identify any historic properties or resources, the current inventories of the National Register of Historic Places (NR), the California Register of Historic Resources (CR), the California Historical Landmarks list (CHL), the California Points of Historical Interest (CPHI) list, and the California State Historic Resources Inventory (HRI) for Sonoma County were reviewed to determine the existence of previously documented local historical resources. An intensive pedestrian survey of the site and its surroundings were conducted. The results of the record search or pedestrian survey found no cultural resources present.

If you have any additional information regarding potential historic or cultural resources in proximity or relation to the proposed project area, we would greatly appreciate your input. Please feel free to contact me at 925.357.2562 or via email at ddepietro@fcs-intl.com and thank you for your valuable assistance.

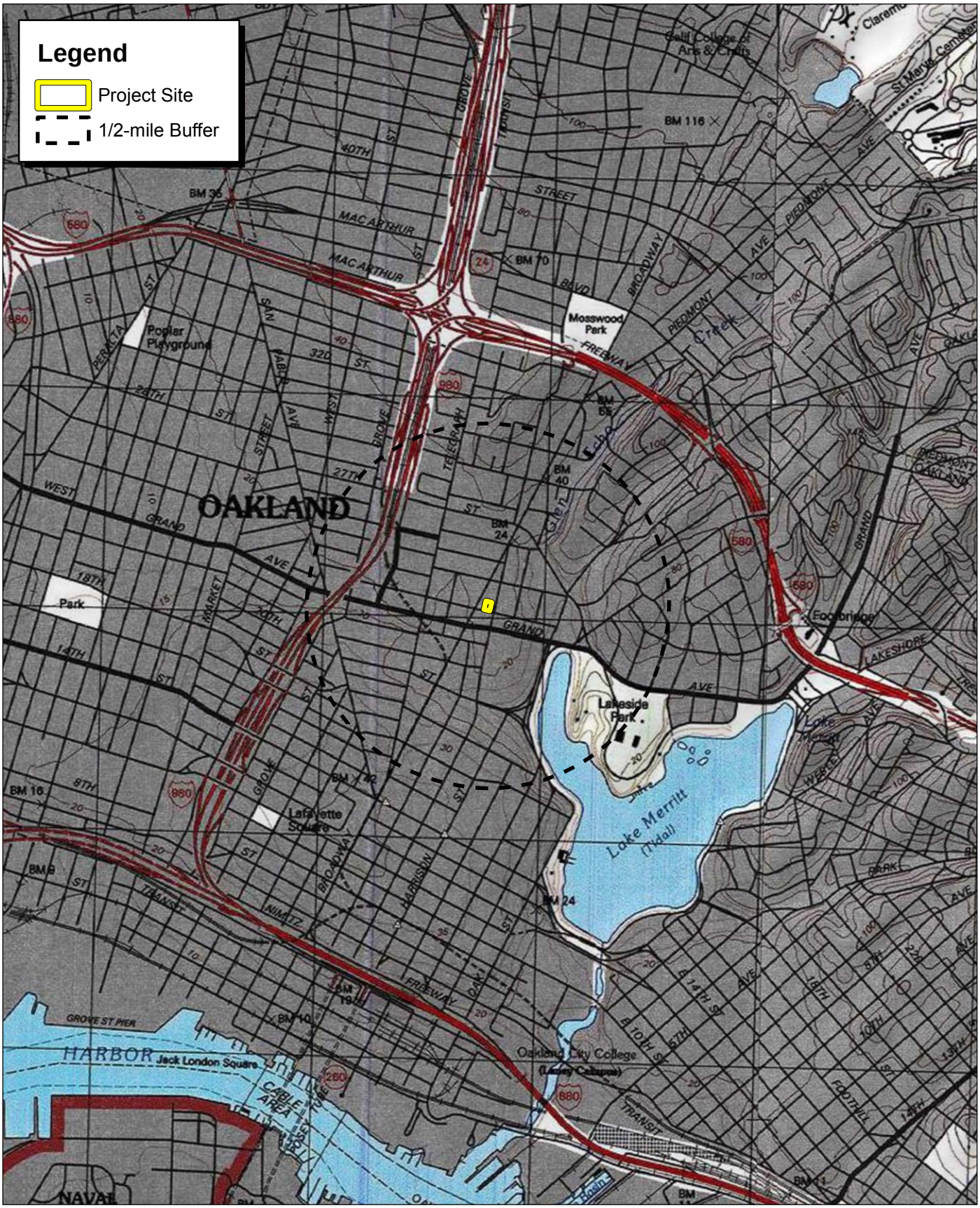
Sincerely,



Dana Douglas DePietro, Ph.D.
Senior Scientist, Archaeology
FirstCarbon Solutions

1350 Treat Boulevard, Ste. 380
Walnut Creek, CA 94597

Enc: Project location maps for the proposed 2305 Webster Street Mixed Residential Project in Oakland



Source: USGS Oakland West (1980) 7.5' Quadrangle

FIRSTCARBON SOLUTIONS™

Exhibit 1
Record Search Map

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www.FirstCarbonSolutions.com

Indian Canyon Mutsun Band of Costanoan
Ann Marie Sayers, Chairperson
P.O. Box 28, Hollister CA 95024

February 9, 2017

Subject: 2305 Webster Street Mixed Residential Project in Oakland, CA

Dear Ann Marie Sayers,

At the request of the City of Oakland, FirstCarbon Solutions (FCS) is conducting a cultural resources assessment for the 2305 Webster Street Mixed Residential Project (Project) in Oakland, California. The Project encompasses approximately 0.30-acres located at the intersection of Webster Street/23rd Street in downtown Oakland (Assessor's Parcel Number (APN) 8-667-5-3). The site is a rectangular-shaped parcel located in the Broadway Valdez District Specific Plan Area, which is northeast of Uptown Oakland and northwest of Lake Merritt.

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Sincerely,



Dana Douglas DePietro, Ph.D.
Senior Scientist, Archaeology
FirstCarbon Solutions

1350 Treat Boulevard, Ste. 380
Walnut Creek, CA 94597

Enc: Project location maps for the proposed 2305 Webster Street Mixed Residential Project in Oakland

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www.FirstCarbonSolutions.com

Muwekma Ohlone Indian Tribe of the SF Bay Area
Rosemary Cambra, Chairperson
P.O. Box 360791, Milpitas CA 95036

February 9, 2017

Subject: 2305 Webster Street Mixed Residential Project in Oakland, CA

Dear Rosemary Cambra,

At the request of the City of Oakland, FirstCarbon Solutions (FCS) is conducting a cultural resources assessment for the 2305 Webster Street Mixed Residential Project (Project) in Oakland, California. The Project encompasses approximately 0.30-acres located at the intersection of Webster Street/23rd Street in downtown Oakland (Assessor's Parcel Number (APN) 8-667-5-3). The site is a rectangular-shaped parcel located in the Broadway Valdez District Specific Plan Area, which is northeast of Uptown Oakland and northwest of Lake Merritt.

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Sincerely,



Dana Douglas DePietro, Ph.D.
Senior Scientist, Archaeology
FirstCarbon Solutions

1350 Treat Boulevard, Ste. 380
Walnut Creek, CA 94597

Enc: Project location maps for the proposed 2305 Webster Street Mixed Residential Project in Oakland

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www.FirstCarbonSolutions.com

North Valley Yokuts Tribe
Katherine Erolinda Perez, Chairperson
P.O. Box 717, Linden CA 95236

February 9, 2017

Subject: 2305 Webster Street Mixed Residential Project in Oakland, CA

Dear Katherine Erolinda Perez,

At the request of the City of Oakland, FirstCarbon Solutions (FCS) is conducting a cultural resources assessment for the 2305 Webster Street Mixed Residential Project (Project) in Oakland, California. The Project encompasses approximately 0.30-acres located at the intersection of Webster Street/23rd Street in downtown Oakland (Assessor's Parcel Number (APN) 8-667-5-3). The site is a rectangular-shaped parcel located in the Broadway Valdez District Specific Plan Area, which is northeast of Uptown Oakland and northwest of Lake Merritt.

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Sincerely,



Dana Douglas DePietro, Ph.D.
Senior Scientist, Archaeology
FirstCarbon Solutions

1350 Treat Boulevard, Ste. 380
Walnut Creek, CA 94597

Enc: Project location maps for the proposed 2305 Webster Street Mixed Residential Project in Oakland

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The Ohlone Indian Tribe
Andrew Galvin,
P.O. Box 3152, Fremont CA 94539

February 9, 2017

Subject: 2305 Webster Street Mixed Residential Project in Oakland, CA

Dear Andrew Galvin,

At the request of the City of Oakland, FirstCarbon Solutions (FCS) is conducting a cultural resources assessment for the 2305 Webster Street Mixed Residential Project (Project) in Oakland, California. The Project encompasses approximately 0.30-acres located at the intersection of Webster Street/23rd Street in downtown Oakland (Assessor's Parcel Number (APN) 8-667-5-3). The site is a rectangular-shaped parcel located in the Broadway Valdez District Specific Plan Area, which is northeast of Uptown Oakland and northwest of Lake Merritt.

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FirstCarbon Solutions

1350 Treat Boulevard, Ste. 380
Walnut Creek, CA 94597

Enc: Project location maps for the proposed 2305 Webster Street Mixed Residential Project in Oakland

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Costanoan Rumsen Carmel Tribe
Tony Cerda, Chairperson
244 E. 1st Street, Pomona CA 91766

February 9, 2017

Subject: 2305 Webster Street Mixed Residential Project in Oakland, CA

Dear Tony Cerda,

At the request of the City of Oakland, FirstCarbon Solutions (FCS) is conducting a cultural resources assessment for the 2305 Webster Street Mixed Residential Project (Project) in Oakland, California. The Project encompasses approximately 0.30-acres located at the intersection of Webster Street/23rd Street in downtown Oakland (Assessor's Parcel Number (APN) 8-667-5-3). The site is a rectangular-shaped parcel located in the Broadway Valdez District Specific Plan Area, which is northeast of Uptown Oakland and northwest of Lake Merritt.

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Senior Scientist, Archaeology
FirstCarbon Solutions

1350 Treat Boulevard, Ste. 380
Walnut Creek, CA 94597

Enc: Project location maps for the proposed 2305 Webster Street Mixed Residential Project in Oakland

Attachment I: Soils Report for 230 Broadway/2301 Webster Street, Oakland, California

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P. WHITEHEAD AND ASSOCIATES
CONSULTING ENGINEERS
671 ROCKDALE DRIVE
SAN FRANCISCO, CALIFORNIA 94127
TEL (415) 584-0537 · FAX (415) 584-3084
E-MAIL: DUGGANJ@MSN.COM

SOIL REPORT
2300 BROADWAY / 2301 WEBSTER STREET
APN # 08 - 0667 - 03
APN # 08 - 0667 - 04
APN # 08 - 0667 - 05
APN # 08 - 0667 - 06
APN # 08 - 0667 - 07
OAKLAND, CALIFORNIA

P. WHITEHEAD AND ASSOCIATES REPORT 2004 - 39

MAY 16, 2004

SOIL REPORT 2004 - 39

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DESIGN PARAMETERS 6

INVESTIGATION LIMITATIONS 6

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1) Location Map
2) Boring Location Plan
3) Boring Log
4) Laboratory Analysis
5) Soils Strength Data
6) Foundation Details
7) Seismic Reaction Map
8) Except from Deering's Civil Code

INTRODUCTION:

This report presents the results of a soil investigation for the property at 2300 Broadway / 2301 Webster Streets, Oakland. The purpose of this investigation was to determine the subsurface soil conditions and to make recommendations for the design of the foundations for a proposed four story over garage area commercial / residential dwelling structure to be constructed on the property. The scope of the investigation included the following items:

* Drilling of two test borings in order to evaluate the subsurface soil conditions.
- Evaluation of Soil Classification.
- Evaluation of subsurface conditions.
- Evaluation of seismicity.
- Evaluation of slide potential.
- Presentation of the results of the results of the investigation, including recommendations, in a report.
- Presentation of design parameters.

SITE CONDITIONS:

The site is L shaped on plan and is located on the east side of Broadway in gently sloping terrain and measures an average of 112 feet in width and extends an average distance of 211 feet from the front property line at Broadway to the rear property line. The lot is relatively level. The lot is to be subdivided into two lots and separate structures constructed on each lot.

The site is bounded at the south property line by 23rd Street, the north property line by a multi story over basement garage structure. At the east property line there is an open car park. The area is not indicated to be in an area of liquefaction potential as reflected by the State of California Hazardous Area Map.

SITE INVESTIGATION:

A detailed site reconnaissance and sub-surface investigation / exploration were performed by the writer on April 13, 2004. The investigation was carried out in conjunction with a review of soil Report 238 – M1 on file with the City. 238 – M1 was prepared in conjunction with Bart Construction. During the writer's investigation two test boring were drilled to depths of 16 feet 6 inches. The approximate locations of the borings are shown on the enclosed site plan. The test logs are included in the attachments of this report. Sampling / penetration Resistance Blow Counts were obtained with a standard 140 pound free falling hammer. Free water was encountered at 15 feet below grade. The borings encountered firm brown clayey sand underlain by medium dense yellow brown sandy clay.

SUBSURFACE CONDITIONS:

The U.S.G.S Generalized Geological Map indicates that the site is underlain by alluvium. The map indicates that the alluvium is underlain by bedrock. A detailed map prepared by the State of California (Seismic Hazard Zone) indicates the site has only 1% of area prediction for liquefaction.

SEISMICITY:

The San Francisco Bay Area is considered to be one of the most seismically active regions of the United States. The nearest active faults are the northwest trending San Andreas Faults, mapped approximately 14 miles southwest of the site and the northwest trending Hayward Faults, mapped approximately miles northeast of the site. Referring to Borcherdt, Gibbs, and Lajoie 1975, the site is located in a seismic category " D " area. It is expected that the site will be subjected to at least one moderate to severe earthquake. However, strong shaking of the site and structures is to be expected. Because of dense underlying material, liquefaction of the foundation soils is not likely to occur.

SEISMIC ZONE	SEISMIC SOURCE TYPE	SOIL PROFILE TYPE	NEAR - SOURCE FACTOR N_a	NEAR - SOURCE FACTOR N_v
4	A	S_D	1.18	1.50

SLIDE POTENTIAL:

It is the writer's experience that slide action occurs mainly due to the following;

- Sloughage of surface soils off harder impermeable rock.
- Slippage of surface soils at a weak subsurface material underlain by an impervious material.
- Saturation and resulting lubrication at the slide plane by surface and subsurface water especially during periods of prolonged rainfall.
- Steep grading.
- Soft poorly compacted native soils and fill soils.
- Overexcavation of the slope support toe.

  The subject site is minimally sloped. No significant potential for local creep / sliding exists.

- It is noted that slope stability map prepared by the U. S. G. S. indicates the site to be in a category 1 area – stable areas of 0.5% slope that are not underlain by lands slides deposits.

RECOMMENDATIONS:

Building Foundations:

The new building foundation can consist of fully tied spread footings founded on gravel over the stiff sandy clay soil. The foundation should penetrate a minimum of 24 inches into the competent material. The entire footing/grade beam system should incorporate a well reinforced integral structural concrete slab, a minimum of 6 inches in thickness. A "waffle" slab foundation consisting of a thickened edge beam and stiffeners/ties at right angles would comply with our recommendations. The system should be designed to span, as a simple beam, an unsupported distance of 10 feet and/or cantilever an unsupported distance of 5 feet near the corners of the structure. If excavations are made below footings of adjacent buildings, shoring and underpinning will be required. Reference is made to Deering's Civil Code, extracts of which are included on the enclosures of this report.

The entire slab should be underlain with four inches of crushed ¾ inch drain rock.

It is noted that a basement exists at the north property line. Drilled piers should be used in this area to avoid lateral loading of the basement retaining wall. Piers should be a minimum 18" diameter and expected pier is 18 feet.

Post-construction differential settlement of the site under normal loading is not anticipated to exceed ½ inch in a horizontal distance of 50 feet. Total post construction settlement is not anticipated to exceed ¾ inch.

Retaining Walls:

Retaining walls located on the site must be designed to resist lateral earth pressures plus additional lateral pressures that may be caused by surcharge loads applied at the ground surface behind the walls.

It is recommended that unrestrained walls, 12 feet in height or less that have a level surface or a sloping surface flatter than 4:1, be designed to resist an equivalent fluid pressure of 40 pounds per cubic foot. Where the sloping surface is at an inclination of 2:1, the walls should be designed to resist and equivalent fluid pressure of 60 pounds per cubic foot. For walls having a sloping surface between 4:1 and 2:1, a straight line interpolation between 40 and 60 pounds per cubic foot may be used. The walls should also be designed to resist an additional uniform pressure equivalent to one-third the maximum anticipated surcharge load applied at the surface behind the walls.

It is recommended that restrained walls be designed to resist the pressures given above plus an additional uniform lateral pressure of 15H pounds per square foot where H = height of wall in feet.

The above pressures assume that sufficient drainage will be provided behind the walls to prevent the build-up of hydrostatic pressures from surface and subsurface water infiltration. Adequate drainage should be provided by a sub-drain system consisting of a four inch diameter perforated pipe (ABS slotted) bedded in drain rock wrapped effectively with filter fabric to a height of two-thirds the height of the wall. The remaining portion of the walls should be backfilled with on-site or imported fill materials that are compacted to at least 90 percent relative compaction. At property line walls where no space is available for drain pipes, "miradrain" or approved equal materials may be used. The wall drain shall be connected to the City sewer system incorporating a catch basin in accordance with City requirements. The wall should be waterproofed by hot-mopping or by other positive approved method.

Surface Drainage

All roof and yard area runoff should be piped away from the building and to the City sewer system. Catch basin in accordance with City Standards will be required. Grades adjacent to the building should be sloped away from the building at a minimum of slope of 2 percent.

Concrete Slabs-on-Grade

In order to provide free drainage, slabs-on-grade are to be founded on 4" of 3/4" crushed rock. A six mil thick plastic sheet water vapor barrier is to be incorporated beneath the slab and is to be protected by a two inch layer of sand.

DESIGN PARAMETERS:

FOUNDATION MATERIAL – STIFF SANDY CLAY / MEDIUM DENSE CLAYEY SAND

Allowable Foundation Pressure lbs. / sq. ft.	- 1500
Lateral Bearing, lbs. / Cu. ft. of Depth Below Natural Grade	- 300
Lateral Sliding Coefficient	- 0.35
Skin Friction P. S. F.	- 600

INVESTIGATION LIMITATIONS:

This report has been prepared in order to aid in the evaluation of the subsurface soils of the property and to aid on the foundation design of the proposed structure. These services consist of professional opinions and recommendations made in accordance with generally accepted engineering principles and practices. This acknowledgment is in lieu of all warranties either expressed or implied.

Respectfully submitted

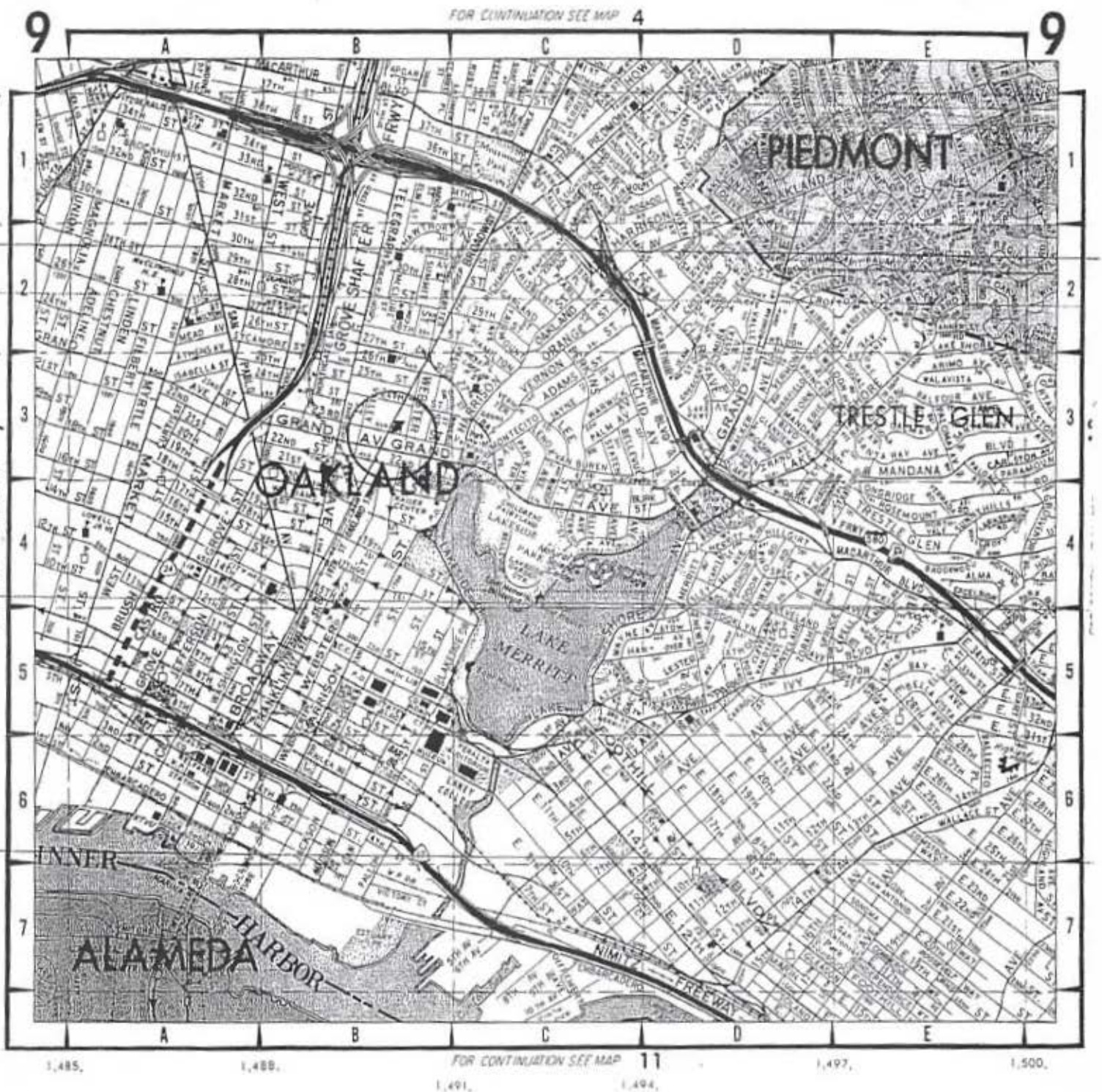
P. WHITEHEAD & ASSOCIATES

Philip Whitehead
President

REGISTERED PROFESSIONAL ENGINEER
PHILIP WHITEHEAD
EXP. 3/31/08
C30,996
CIVIL
STATE OF CALIF.

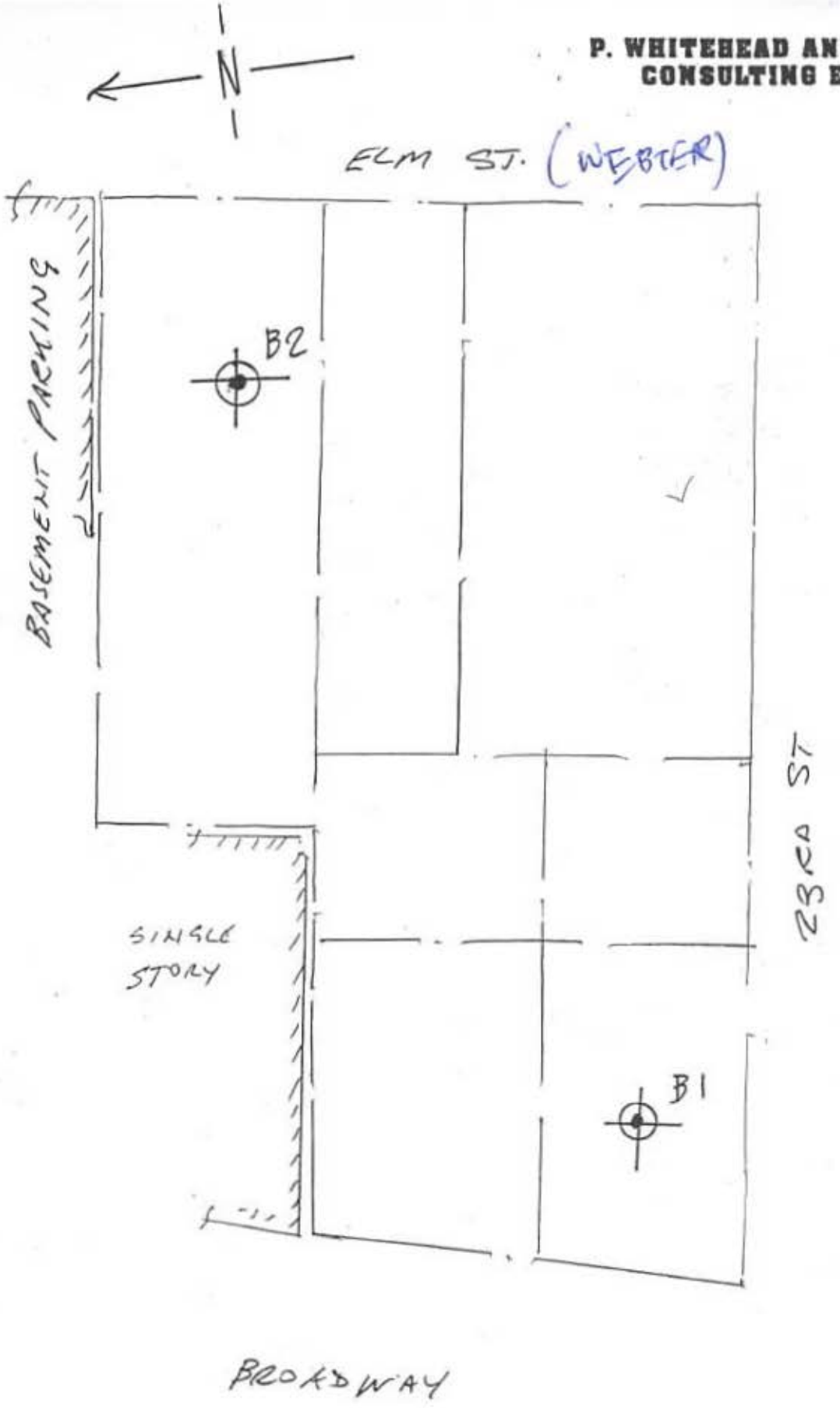
REGISTERED PROFESSIONAL ENGINEER
PHILIP WHITEHEAD
EXP. 3/31/08
GE 952
GEOTECHNICAL
STATE OF CALIFORNIA

LOCATION MAP


FOR CONTINUATION SEE MAP 4
9
A
B
C
D
E
1
2
3
4
5
6
7
PIEDMONT
OAKLAND
TRESTLE GLEN
LAKE MERRITT
INNER HARBOR
ALAMEDA
MacARTHUR BLVD
GRAND AV
BROADWAY
WEBSTER ST
HARRISON ST
FRANKLIN ST
MARKET ST
SHAFTER
GROVE
TELEGRAPH AV
EUCLID AV
MANDANA BLVD
LAKESHORE AV
PERKINS ST
HILLCREST RD
NIMITZ FREEWAY
FOR CONTINUATION SEE MAP 11
1,485.
1,488.
1,491.
1,494.
1,497.
1,500.

BORING LOCATION PLAN

P. WHITEHEAD AND ASSOCIATES
CONSULTING ENGINEERS



TEST BORING LOCATION PLAN

1" = 30'

BORING LOG

P. WHITEHEAD AND ASSOCIATES
CONSULTING ENGINEERS

Project No. 2004-39
Location 2300 BROADWAY
OAKLAND, CA
Date APRIL 13 2004
Type of Boring CONTINUOUS AUGER
"MINUTEMAN"

LOG BORING NO. B-1
Hammer 140 #
Surface Elevation

FT Depth	Blows per ft.	Sample No.	In-Place γ_d Density #/ft.	In-Place Moisture Content %	Description	COLOR	CONSIST.	SOIL TYPE
					(3" ASPHALT			
5					CLAY WITH SOME SAND	DARK BROWN	STIFF	CL
	21/24							
	28				SANDY CLAY	LIGHT BROWN TAN		CL
	STP 15						VERY STIFF	
10								
15					FREE WATER			
	STP 15				SANDY CLAY	YELLOW BROWN	VERY STIFF	CL

P. WHITEHEAD AND ASSOCIATES
CONSULTING ENGINEERS

Project No. 2004-39
Location 2300 BROADWAY OAKLAND CA
Date APRIL 13 2004
Type of Boring CONTINUOUS AUGER "MINUTEMAN"

LOG BORING NO. B-2
Hammer 140#
Surface Elevation

FT Depth	Blows per ft.	Sample No.	In-Place Yd Density #/ft.	In-Place Moisture Content %	Description	COLOR	CONSIST.	SOIL TYPE
5					SANDY CLAY	BROWN	VERY STIFF	CL
10	33	STP			CLAYEY SAND FINE & MEDIUM GRAINED	TAN	MEDIUM DENSE	SC
15	75				NO FREE WATER			
		STP						

LABORATORY ANALYSIS

SMITH-EMERY COMPANY
The Full Service Independent Testing Laboratory, Established 1904

GEOSERVICES DIVISION

Hunters Point Shipyard, Bldg. 114
P.O. Box 880550
San Francisco, California 94188
(415) 330-3000 Fax (415) 330-3030

791 East Washington Blvd.
Los Angeles, California 90021-3043
(213) 749-3411
Fax (213) 746-7228

April 28, 2004

SECo File No. 60906
SECo Report No. 04-383a

P. Whitehead & Associates
Consulting Engineers
671 Rockdale Drive
San Francisco, California 94127

Attention: Mr. Philip Whitehead

RE: 2300 Broadway, Oakland

SUBJECT: Report of Tests

TEST STANDARD: ASTM D2937 (Dry Density by Drive Cylinder Method), ASTM D2216 (Moisture Content), and ASTM D422 (Sieve Analysis)

SOURCE: Onsite, Material delivered April 14, 2004

REPORT OF TESTS

In compliance with your request, we have conducted the subject tests with the results presented below.

Sample Number	Description	Source
B-1 @ 6'	Brown Clayey Sand	Onsite
B-2 @ 15'	Yellow Brown Sandy Clay	Onsite

ASTM D2216/D2937 (Moisture/Dry Density)
B-1 @ 6' 17.4 % / 102.8 pcf

ASTM D422 (Sieve Analysis)
B-2 @ 15.0' Detailed report attached

Respectfully submitted,
SMITH-EMERY COMPANY

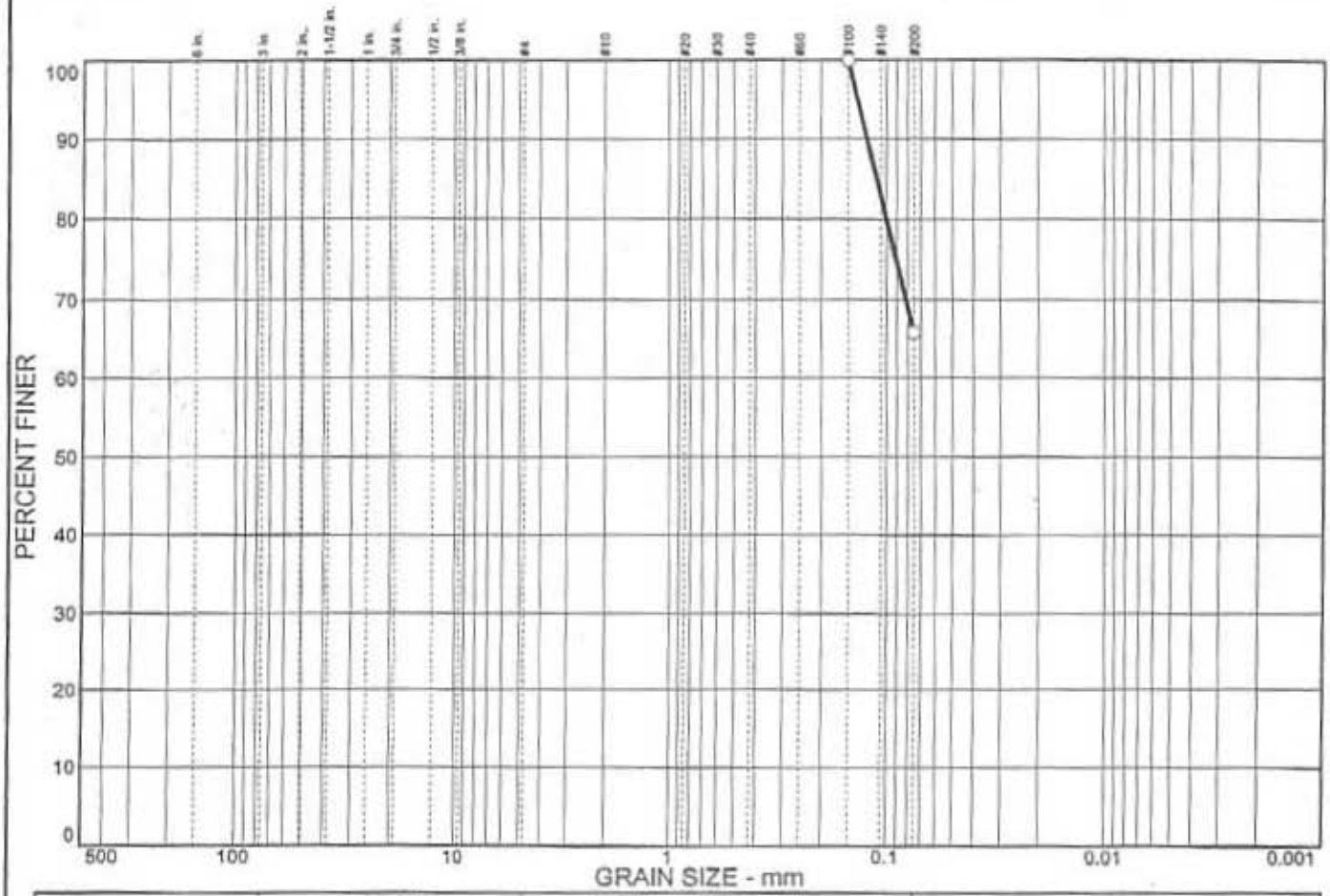
PATRICK MORRISON, R.G. #7174
Geoservices Division Manager, San Francisco

Attachments: ASTM D422 Detailed Report

cc: 2-Addressee

ALL REPORTS ARE SUBMITTED AS THE CONFIDENTIAL PROPERTY OF CLIENTS. AUTHORIZATION FOR PUBLICATION OF OUR REPORT, CONCLUSIONS, OR EXTRACTS FROM OR REGARDING THEM IS RESERVED PENDING OUR WRITTEN APPROVAL AS A MUTUAL PROTECTION TO CLIENTS, THE PUBLIC AND OURSELVES.

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.0	0.0	34.2	65.8	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#100	100.0		
#200	65.8		

* (no specification provided)

Soil Description

Yellow Brown sandy Clay

Atterberg Limits

PL= LL= PI=

Coefficients

D_{85}= 0.111 D_{60}= D_{50}=
D_{30}= D_{15}= D_{10}=
C_u= C_c=

Classification

USCS= AASHTO=

Remarks

Sample No.: B-2 @ 15' **Source of Sample:** 2300 Broadway, Oakland **Date:** 4/23/04
Location: **Elev./Depth:**

Smith-Emery Company

Client: P. Whitehead and Associates
Project: General Services
Project No: 60906 **Figure** 1

SOILS STRENGTH DATA

Unified Soil Classification System
(ASTM D-2487)

P. WHITEHEAD AND ASSOCIATES
CONSULTING ENGINEERS

PRIMARY DIVISIONS			GROUP SYMBOL	SECONDARY DIVISIONS
COARSE GRAINED SOILS — MORE THAN HALF OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVELS MORE THAN HALF OF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE	CLEAN GRAVELS (LESS THAN 5% FINES)	GW	Well graded gravels, gravel-sand mixtures, little or no fines
			GP	Poorly graded gravels or gravel-sand mixtures, little or no fines
		GRAVEL WITH FINES	GM	Silty gravels, gravel-sand mixtures, non-plastic fines.
			GC	Clayey gravels, gravel-sand-clay mixtures, plastic fines.
	SANDS MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE	CLEAN SANDS (LESS THAN 5% FINES)	SW	Well graded sands, gravelly sands, little or no fines.
			SP	Poorly graded sands or gravelly sands, little or no fines.
		SANDS WITH FINES	SM	Silty sands, sand-silt mixtures, non-plastic fines.
			SC	Clayey sands, sand-clay mixtures, plastic fines.
FINE GRAINED SOILS — MORE THAN HALF OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS LIQUID LIMIT IS LESS THAN 50%		ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
			OL	Organic silts and organic silty clays of low plasticity.
	SILTS AND CLAYS LIQUID LIMIT IS GREATER THAN 50%		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.
			CH	Inorganic clays of high plasticity, fat clays.
			OH	Organic clays of medium to high plasticity, organic silts.
HIGHLY ORGANIC SOILS			Pt	Peat and other highly organic soils.

DEFINITION OF TERMS

U.S. STANDARD SERIES SIEVE				CLEAR SQUARE SIEVE OPENINGS			
200	40	10	4	3/4"	3"	12"	
SILTS AND CLAYS	SAND			GRAVEL		COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	COARSE		

GRAIN SIZES

SANDS AND GRAVELS	BLOWS/FOOT †
VERY LOOSE	0 - 4
LOOSE	4 - 10
MEDIUM DENSE	10 - 30
DENSE	30 - 50
VERY DENSE	OVER 50

RELATIVE DENSITY

SILTS AND CLAYS	STRENGTH ‡	BLOWS/FOOT †
VERY SOFT	0 - 1/4	0 - 2
SOFT	1/4 - 1/2	2 - 4
FIRM	1/2 - 1	4 - 8
STIFF	1 - 2	8 - 16
VERY STIFF	2 - 4	16 - 32
HARD	OVER 4	OVER 32

CONSISTENCY

† Number of blows of 140 pound hammer falling 30 inches to drive a 2 inch O.D. (1-3/8 inch I.D.) split spoon (ASTM D-1586).

‡ Unconfined compressive strength in tons/sq. ft. as determined by laboratory testing or approximated by the standard penetration test (ASTM D-1586), pocket penetrometer, torvane, or visual observation.

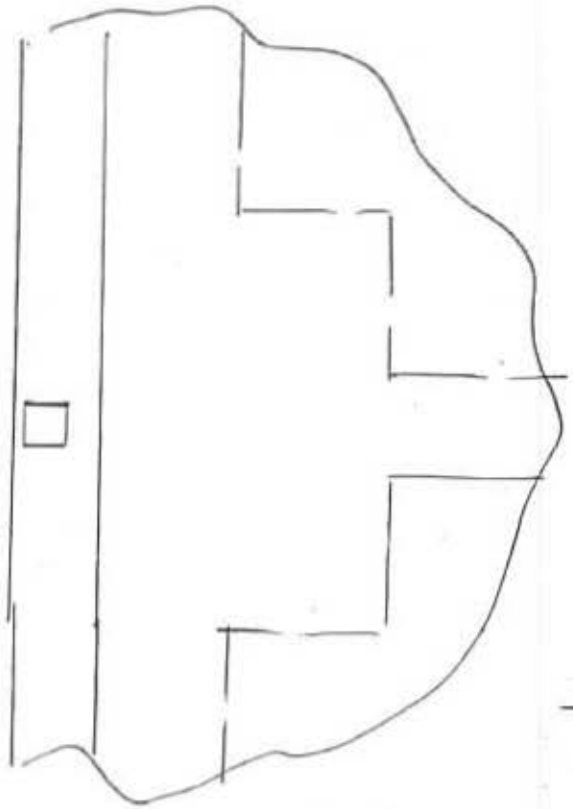
FOUNDATION DETAILS

P. WHITEHEAD AND ASSOCIATES
CONSULTING ENGINEERS

JOB 2004 - 33 SHEET NO. SK1 OF

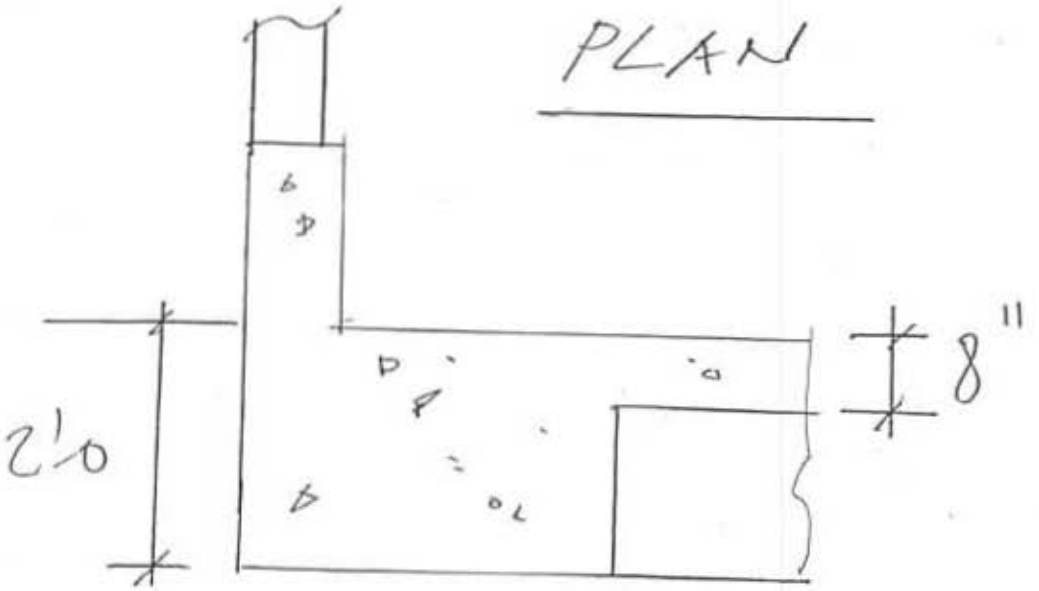
DATE 3/04

CUMPUTATIONS FOR 1708 ANZA ST. BY PW CHKD



FOUNDATION DETAIL

PLAN



SECTION

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Attachment J: Phase I Environmental Site Assessment

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PHASE I ENVIRONMENTAL SITE ASSESSMENT

2305 WEBSTER STREET
OAKLAND, CALIFORNIA 94612

Prepared for:

MR. AVI NEVO
SEGULA INVESTMENTS, INC.
2071 ADDISON STREET
BERKELEY, CA 94704

April 2016

STELLAR
ENVIRONMENTAL SOLUTIONS, INC.
GEOSCIENCE & ENGINEERING CONSULTING

PHASE I ENVIRONMENTAL SITE ASSESSMENT

2305 WEBSTER STREET
OAKLAND, CALIFORNIA 94612

Prepared for:

MR. AVI NEVO
SEGULA INVESTMENTS, INC.
2071 ADDISON STREET
BERKELEY, CA 94704

Prepared by:

STELLAR ENVIRONMENTAL SOLUTIONS, INC.
2198 SIXTH STREET – SUITE 201
BERKELEY, CALIFORNIA 94710

April 22, 2016

Project No. 2016-15

STELLAR
ENVIRONMENTAL SOLUTIONS, INC.

2198 SIXTH STREET, SUITE 201·BERKELEY, CA 94710
TEL: (510)644-3123 · FAX: (510)644-3859
GEOSCIENCE & ENGINEERING CONSULTING

April 22, 2016

Mr. Avi Nevo
Segula Investments, Inc.
2071 Addison Street
Berkeley, CA 94704

RE: Phase I Environmental Site Assessment Report, 2305 Webster Street, Oakland, California (the "Report")

Dear Mr. Nevo:

Segula Investments, Inc. has retained Stellar Environmental Solutions, Inc. (Stellar Environmental), the undersigned consultant, to provide a Phase I Environmental Site Assessment report (the "Report") on the above referenced property. Please be advised you can rely on the report entitled "Phase I Environmental Site Assessment, 2305 Webster Street, Oakland, California" dated April 22, 2016, subject to the limitations and qualifications contained therein. The undersigned further acknowledges that your successors and/or assigns may rely on the information, findings, conclusions, and recommendations provided in this Report, to the same extent that you are able to rely on the Report.

Stellar Environmental has no present or contemplated future ownership interest or financial interest in the real estate that is the subject of this Environmental Site Assessment Report; Stellar Environmental has no personal interest with respect to the subject matter of the Environmental Site Assessment Report or the parties involved; and Stellar Environmental has no relationship with the property or the owners thereof which would prevent an independent analysis of the environmental or other conditions of the property.

Sincerely,

Sami Malaeb, P.E., QSP/QSD
Senior Engineer/Project Manager

Richard S. Makdisi, P.G.
Principal Geochemist/President



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EXECUTIVE SUMMARY

Segula Investments, Inc. retained Stellar Environmental Solutions (Stellar Environmental) to conduct a Phase I Environmental Site Assessment (Phase I ESA) for the real property located at 2305 Webster Street, Alameda County, Oakland, California (the subject property). This ESA was prepared in accordance with ASTM Designation E1527-013 for conducting Phase I ESAs.

The subject property is an open air parking lot, paved with asphalt, and used for public parking. The lot size is approximately 11,745 square feet. A car repair shop and a small corner restaurant once used to occupy the subject property. The subject property was residential in the early 1900's, then as a car repair shop and body shop from 1933 to 1980, and as a parking lot from the early 1980's to the present time (April 2016).

The site vicinity is a mix of residential, commercial properties, and parking lots. Adjoining properties include a covered parking garage to the north; an open parking lot and an office building across from 23rd Street to the south; a restaurant, commercial parking lot and a car repair shop across from Webster Street and to the east; and an apartment building and a café, adjacent and to the west of the subject property.

No hazardous materials or wastes were observed on the subject property during the site visit.

Fuel leak and releases were reported at several sites within quarter mile radius from the subject property. These addresses include: Negherbon Auto Center, 2345 Broadway, Oakland Tribune, 2302-2342 Valdez Street, and Chrysler Dealership, 2417 Broadway. None of these fuel release/leak sites appear to impacted the subject property due to limited extent of contamination, or location with the respect to the subject property (down-gradient location). However, known groundwater degradation and impact by petroleum hydrocarbons and volatile organics are known to exist in the vicinity of the subject property due to a long history of urban development and usage of underground storage tanks (USTs).

- This phase I ESA has revealed no Recognized Environmental Condition (REC) in association with the subject property.

- Although there are no historic or current RECs identified for the subject property, based on the history of up to 50 years of auto repair that ocurred on site, the possibility exits that legacy USTs may exist beneath the site as well as possible soil and groundwater impacts that can ocurr with auto repair activity. The potential additional costs associated with mitigating these potential impacts should be considered as potential additional business risk.
- We declare that, to the best of our professional knowledge and belief, we meet the definition of an Environmental Professional as defined by 40 CFR 312.10 of 40 CFR 312. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

In the professional opinion of Stellar Environmental Solutions, an appropriate level of inquiry into the previous ownership and uses of the subject property consistent with good commercial and customary practice in an effort to minimize liability is completed. There are no exceptions to, or deletions from, this practice described in this report.

This phase I ESA has revealed no Recognized Environmental Condition (REC) in associated with the subject property. However, due to use of the subject property in the past as car repair shop, Stellar Environmental recommends the following:

- Prior to subject property redevelopment, Stellar Environmental recommends devising and implementing a site mitigation plan (SMP), which would guide proper soil excavation work and disposal practices. Should groundwater need to be pumped during excavation activities, we recommend groundwater sampling and profiling as well as obtaining the required permits for discharge to the local POTW or for shipment offsite.

1.0 INTRODUCTION

PROJECT DESCRIPTION

Segula Investments, Inc. retained Stellar Environmental Solutions (Stellar Environmental) to conduct a Phase I Environmental Site Assessment (Phase I ESA) for the real property located at 2305 Webster Street, Alameda County, Oakland, California (the subject property). This ESA was prepared in accordance with ASTM Designation E1527-013 for conducting Phase I ESAs.

The subject property is an open parking lot, paved with asphalt, and used for public parking. The lot size is approximately 11,745 square feet. A car repair shop and a small corner restaurant once used to occupy the subject property. A detailed description of the subject property is included in Section 2.0.

PURPOSE AND SCOPE OF WORK

The objective of the Phase I ESA report is the development of environmental information about the subject property for use by the user and/or its lender through the scope of work defined in ASTM Standard E1527-13. The 2013 revision to the ASTM standard for Phase I ESAs can be summarized best in defining the three types of conditions the property is evaluated against. These are:

A. Recognized Environmental Conditions (RECs): ASTM Standard E 1527-13 defines a REC as (emphasis in original to indicate formally defined terms): "the presence or likely presence of any *hazardous substances* or *petroleum products* in, on, or at a *property*: (*1*) due to release to the environment; (*2*) under conditions indicative of a *release* to the *environment*; or (*3*) under conditions that pose a *material threat* of a future *release* to the *environment*. *De minimis conditions* are not *recognized environmental conditions.*" In addition, ASTM Standard E 1527-13 defines a controlled recognized environmental condition (CREC; a type of REC) as (emphasis in original to indicate formally defined terms): "a *recognized environmental condition* resulting from a past *release* of *hazardous substances* or *petroleum products* that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with *hazardous substances* or *petroleum products* allowed to remain in place subject

to the implementation of required controls (for example, *property* use restrictions, *activity and use limitations*, *institutional controls*, or *engineering controls*). A condition considered by the *environmental professional* to be a *controlled recognized environmental condition* shall be listed in the findings section of the Phase I Environmental Site Assessment report, and as a recognized environmental condition in the conclusions section of the Phase I Environmental Site Assessment report."

B. Historical Recognized Environmental Conditions: ASTM Standard E 1527-13 defines a historical recognized environmental condition (HREC, which is not a REC) as: "a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a historical recognized environmental condition, the environmental professional (EP) must determine whether the past release is a recognized environmental condition at the time the Phase I Environmental Site Assessment is conducted (for example, if there has been a change in the regulatory criteria). If the EP considers the past release to be a recognized environmental condition at the time the Phase I ESA is conducted, the condition shall be included in the conclusions section of the report as a recognized environmental condition."

C. De Minimis Conditions: ASTM Standard E 1527-13 defines a de minimis condition as (emphasis in original to indicate formally defined terms): "a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis are not recognized environmental conditions nor controlled recognized environmental conditions."

This ESA evaluates the potential hazardous waste materials or waste impacts that may be associated with the subject property, and assesses the potential impacts that could arise from historical site uses and/or offsite uses that have resulted in the migration of subsurface groundwater contamination onto the properties and any other inquiries required by the ASTM E-1527-13. Tasks conducted for this ESA include:

- Evaluating historical land use (using historical aerial photographs, Sanborn fire insurance zonation maps, a city directory, and historical topographic maps);
- Evaluating the physical setting;

- Reviewing regulatory agency records and available previous subject property environmental reports if any;
- Interviewing a representative of the property owner; and
- Conducting a site reconnaissance.

We were not contracted to, nor did we, perform "non-scope considerations" delineated in the ASTM standard—including such tasks as surveying or sampling of asbestos, radon, lead-based paint, or lead in drinking water; regulatory compliance; evaluating ecological resources and risks to wetlands, cultural/historical, and endangered species; industrial hygiene; health and safety; indoor air quality; environmental lien searches; and high-voltage power line assessments. However, where information is available on these items, it has been included in Section 4.0 of this report.

2.0 SUBJECT PROPERTY DESCRIPTION AND HISTORY

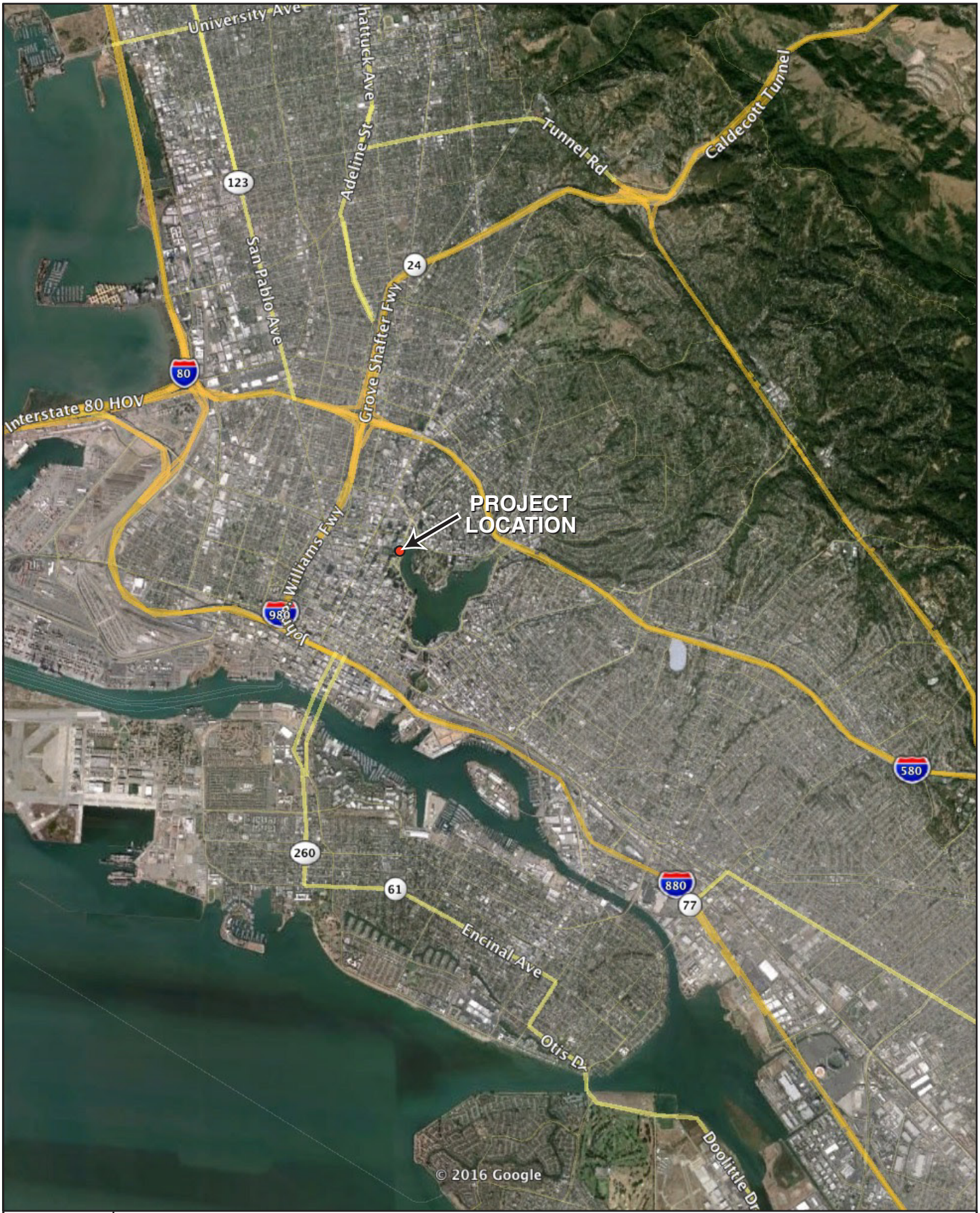
This section describes the subject property and vicinity, and discusses current and historical land uses. The subject property description is based on a site inspection (discussed in Section 4.0). The historical land use description is based on a review of the following information sources: historical aerial photographs; Sanborn fire insurance zonation maps, U.S. Geological Survey (USGS) topographic maps, City of Oakland files, and a city directory. Specific sources of information are listed in Section 8.0, References, and copies of relevant documents are included in the appendices of this report.

SUBJECT PROPERTY DESCRIPTION AND CURRENT USAGE

Figure 1 shows the general location of the subject property on a topographic map. Figure 2 shows the subject property and adjacent land uses. A detailed description of the subject property with regard to environmental issues is provided in Section 4.0, Subject Property and Vicinity Inspection.

The subject property is located at the northwestern corner of the intersection of Webster Street and 23rd Street in the City of Oakland, Alameda County, California, with the present address, 2305 Webster Street, Oakland, California 94612. The parcel number of the subject property is 8-667-5-3.

The subject property consists of an asphalt commercial parking lot, covering an approximately 11,745 square feet of surface area. The lot is divided into 40 parking spaces for public use. No improvements or structures were located onsite during the site visit, on April 12, 2016. Photos for the subject property and vicinity are provided in Appendix C.



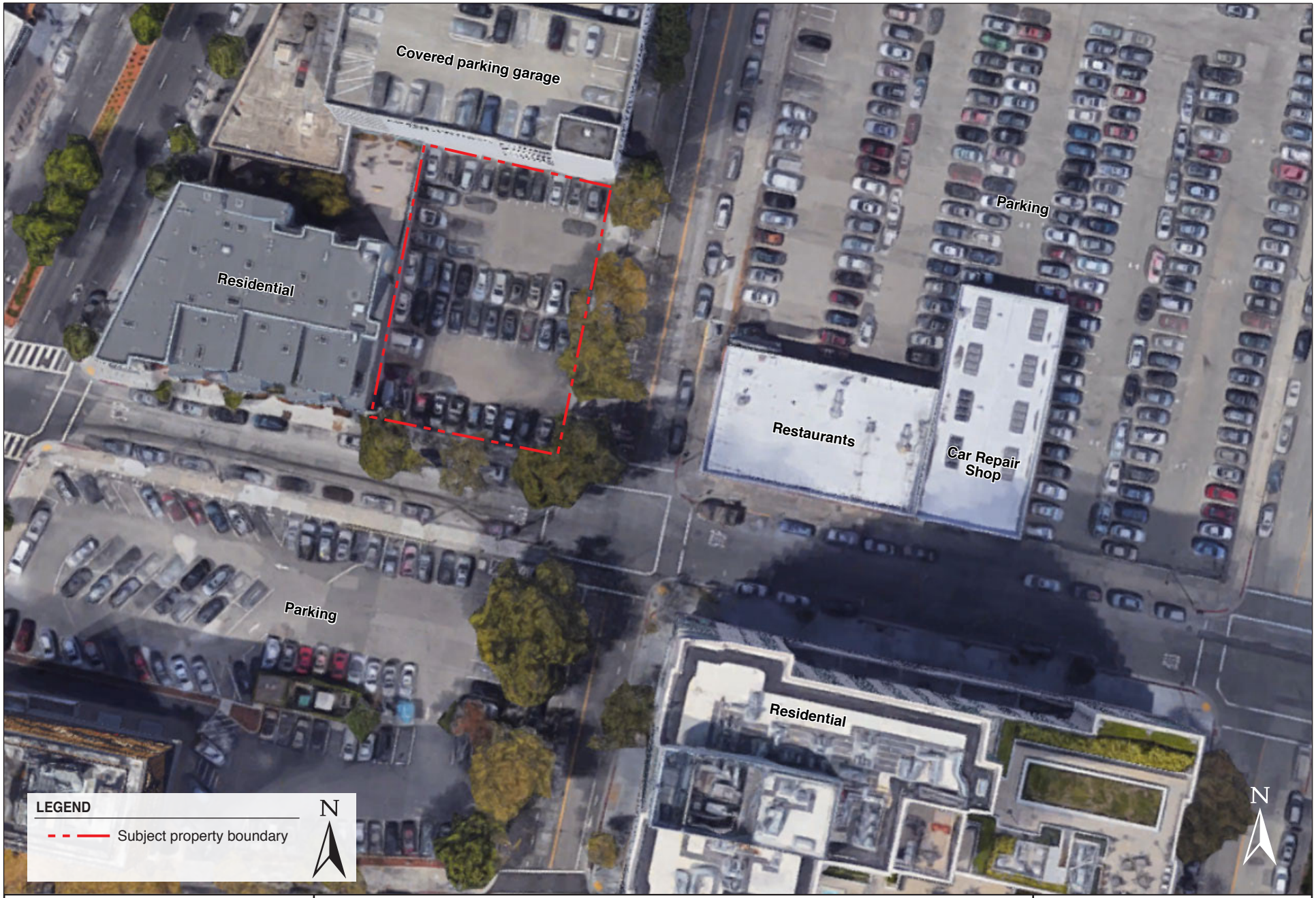
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SITE LOCATION MAP

2305 Webster Street Oakland, CA	By: MJC	APRIL 2016
	Figure 1	

STELLAR ENVIRONMENTAL SOLUTIONS, INC
GEOSCIENCE & ENGINEERING CONSULTING

2016-15-01



STELLAR ENVIRONMENTAL SOLUTIONS, INC
GEOSCIENCE & ENGINEERING CONSULTING

SITE PLAN AND ADJACENT LAND USE
2305 Webster Street, Oakland, CA

Figure 2

by: MJC | APRIL 2016

2016-15-02

SUBJECT PROPERTY AND SITE VICINITY HISTORICAL LAND USE

Information was obtained for the subject property and site vicinity historical land uses dating from 1889. Research information sources reviewed for this task (see Appendix B for copies) include:

- ***Aerial Photographs: 1939, 1946, 1958, 1968, 1974, 1982; 1993, 1998, 2005, 2009; 2010; and 2012.*** The scale of aerial photographs may be insufficient to allow discerning site-specific features such as drum storage, waste piles, or manufacturing processes. However, often the scale is such that only building outlines are discernible.

- ***City Directory: 1970-2013.*** A search for City Directory information (using Haines Criss Cross Directories, Pacific Bell, Cole Information Services, and R. L. Polk & Co. of California) was conducted by Environmental Data Resources, Inc. (EDR). Details are included in the ownership and tenancy summary below.

- ***Sanborn Fire Insurance Zonation Maps: 1889, 1902, 1903, 1911, 1912, 1950, 1951, 1952, 1954, 1957; 1958, 1959, 1961, 1962; 1967, and 1970.*** The EDR report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched for the subject property area based on client supplied target property information.

- ***Historical Topographic Maps: 1895, 1897, 1899, 1915, 1949, 1959, 1968, 1973, 1980, 1996-1997, and 2012.*** Topographic maps may depict urbanized land structures, farmlands, water resources, and well locations, and generally show only large commercial/industrial buildings. Appendix B contains copies of the topographic maps that documented changes in land use in the immediate vicinity of the subject property.

- ***An interview with the subject property owner representative***. A copy of the interview of the subject property owner is included in Appendix A.

The following is a chronological summary of the subject property and immediate vicinity land uses, with an emphasis on historical usage of hazardous materials and land usage with the potential to adversely impacting the environment. Specific information regarding onsite and vicinity environmental issues is presented in Sections 4.0 and 5.0.

Ownership and Tenancy Summary

A chain-of-title search and preliminary title report were not conducted as part of this Phase I ESA. Information on ownership was obtained from the subject property owner, City Directory, and Alameda County Assessor's Office. The present owner of the subject property is Rathlin Properties, LLC.

The following is a discussion of available information regarding historical land use. Where historical land use data gaps of more than 5 years are encountered, an opinion is rendered as to the possibility of subject property development with RECs. Appendix B contains copies of the available historical documents.

- ***Sanborn Maps 1889, 1902, 1903, 1911, and 1912:*** 1889 to 1912 sanborn maps showed the subject property and its surrounding area to be residential.
- ***Sanborn Maps 1950, 1951, 1952, 1954, 1957, 1958, 1959, 1961, 1962, 1967 and 1970.*** These maps showed a car repair shop and a small restaurant at the southeastern corner of the subject property. Across from Webster Street, at 2300 Webster, the buidling was occupied by a car repair shop with Oil and Gas sign marking (possible use as a gas station). Adjacent and to the west was marked as store building. Across from 23rd Street and south, it was a car sales and repair lot.
- ***Aerial Photographs:*** 1982 aerial photograph showed a building to exist in the location of the present parking lot at the subject property.
- ***Aerial Photographs:*** 1993, 1998, 2005, 2009, 2010 and 2012 aerial photographs showed a the present parking lot at the subject property. The site vicinity developments appeared approximately the same as the present time.
- ***City Directory:*** City Dirctory indicated the use of the subjec property as an auto repair garage and as a body shop from 1933 to 1980. Circa-1920 and earlier, the subject property is believed to be residential.

In summary, the subject property was residential in the early 1900's, then saw use as a car repair shop and body shop from 1933 to 1980, then as a parking lot from the early 1980's to the present time (April 2016).

Adjacect Property Usage

Across from 23rd Street and South Side of the Subject Property: There is a commercial open parking lot and an office building at 80 Grand Avenue. The property was once used by Safeway Store in the 1930's, followed by various commercial services.

Across from Webster Street and East, at 2300 Webster Street and 320 23rd Street: 320 23rd Street was historically and still is used for car repair and earlier as a body shop. 2300 Webster Street was used for oil and gas business (possibly a gas station), according to the Sanborn maps, 1950 to 1970.

Adjacent and to the west, at 2300 Broadway Street: Occupied by an apartment building and a café. Earlier use was for storage of car accessories and offices for Allstate Insurance Company.

Adjacent and to the North, at 2353 Webster Street: It is known to be used throughout its history for car parking.

3.0 PHYSICAL SETTING

TOPOGRAPHY, DRAINAGE, AND WETLANDS

Figure 3 is a physical setting map. The mean elevation of the subject property is approximately 27 feet above mean seal level (amsl), with a general topographic gradient in the surrounding area to the south/southeast, towards Lake Merritt (Topo maps, Appendix B). Water onsite is channeled south and drains to a storm drain near the intersection of Broadway and 23rd Street. The nearest surface water is Lake Merritt, located approximately 0.25 miles southeast of the subject property. There is no wetland designation associated with the subject property. According to EDR Radius Report (Appendix D) the subject property is not situated in any flood zone area.

Geology

The US Geologic Map of Oakland classified the geology of the general subject property area as Marine Terrace Deposits (Qmt). A subsurface investigation at a neighboring site, located at 2302-2332 Valdez Street and 2321-2335 Waverly Street (Langan Treadwell Rollo, 2014), approximately 400 feet east to southeast of the subject property, indicated the site is blanketed by approximately two to five feet of fill, which is comprised of silt, sand, and clay. The fill is underlain by inter-layered medium dense to very dense silty and clayey sand and medium stiff to hard silt and clay with varying amounts of sand and gravel.

Hydrogeology

Groundwater was encountered at 2302-2332 Valdez Street and 2321-2335 Waverly Street, within 500 feet from the subject property (Langan Treadwell Rollo, 2014) in each of five previously installed groundwater monitoring wells at various depths ranging from 13.5 feet to 16 feet bgs. Groundwater flow direction is expected to follow the general topographic gradient in the surrounding area, to the south/southeast, towards Lake Merritt

No public water wells or drinking water wells were identified within ¼ mile radius from the subject property.

PHYSICAL SETTING SOURCE MAP - 4588441.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

FIGURE 3: Physical Setting Map

SITE NAME: 2305 Webster Street ADDRESS: 2305 Webster Street Oakland CA 94612 LAT/LONG: 37.812242 / 122.265422	CLIENT: Stellar Enviro Solutions CONTACT: Sami Maleab INQUIRY #: 4588441.2s DATE: April 11, 2016 2:20 pm

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4.0 SUBJECT PROPERTY AND VICINITY INSPECTION

INTRODUCTION

Mr. Sami Malaeb of Stellar Environmental performed the subject property and vicinity inspection on April 11, 2016. The entirety of the subject property was available for site inspection. However, some portions of the subject property, under parked cars were partially shielded from view. Figure 2 (in Section 2.0) is an aerial photograph with notations made during the site inspection. Table 1 provides a checklist of observations made during the subject property inspection. Appendix C contains selected photographs taken during the property inspection.

PROPERTY INSPECTION

The subject property is an open parking lot, paved with asphalt, and used for public parking. The lot size is approximately 11,745 square feet.

There was no evidence of the following on the subject property:

- Regulated quantities of hazardous materials or wastes;
- Underground or aboveground storage tanks (USTs or ASTs);
- Pits, ponds, or lagoons;
- Wastewater discharges;
- septic systems; or
- Areas that exhibit evidence of unnatural impact (stressed vegetation, stained, or discolored soils, unnatural fill material, evidence of dumping, abandoned drums, etc.).

Table 1
Site Inspection Checklist of Environmental Observations

ASTM Inspection Categories	Findings
Radon	Listed as Zone 2 (between 2 and 4 pico Curies per liter air) (Map of Radon zones in California, based on EPA data).
ACMs	Not applicable. The subject property is a parking lot. No structure exists onsite.
Lead-Based Paint	Not applicable. The subject property is a parking lot. No structure exists onsite.
Mercury in Transformers/Electrical	No Transformer is located onsite. No impact to the subject property is expected.
PCBs in Transformers	No Transformer is located onsite. No impact to the subject property is expected.
PCBs in Fluorescent Light Ballast	None observed.
Lead in Water	Unlikely.
Urea-Formaldehyde	Not applicable.
Electromagnetic Fields	No high-tension overhead transmission cross the property.
Fiberglass Building Systems	None observed.
CFC-containing Compounds	None observed.
Mold / Water Damage	None observed.
Onsite Drains	Water is channeled to 23rd Street into a near sidewalk storm drain.
Sumps/Pits	None observed.
Stressed Vegetation	None observed.
Hazardous Substances Storage, Use and/or Disposal	None observed.
Containers and Drums	None.
USTs	None observed.
ASTs	None observed.
Ponds, Lagoons, Catch Basins, Ditches	None observed.
Wastewater Disposal	None.
Groundwater Wells	None observed.
Septic Tanks/Leach Fields	None observed
Condition of Maintenance Areas	Good.

Notes:
ACM = asbestos-containing material
AST = aboveground storage tank
PCBs = polychlorinated biphenyls
CFC = chlorofluorocarbon
UST = underground storage tank
NA=Not Applicable

ACM/LEAD-BASED PAINT/PCBS/RADON

ACMs: A ban on ACMs occurred in phases between 1973 and 1991. The subject property is an asphalt-paved parking lot. ACMs are not suspected at the subject property.

Lead-Based Paint: The subject property is an asphalt-paved parking lot. Lead-based paint does not exist at the subject property.

PCBs: No Transformer is located onsite. No impact to the subject property is expected.

Radon: Radon is a radioactive gas resulting from the natural breakdown of granitic rocks. Radon is generally not a concern in the Bay Area because of the absence of granitic bedrock exposure, and because most structures do not contain basements in which radon could accumulate. The Map of Radon zones in California, based on EPA data, lists the site as occurring in Zone 2 (average indoor concentrations less than 2 picoCuries per liter of air).

Sumps/Drainage

Surface drainage onsite is channeled towards a storm drain located near the intersection Broadway and 23rd Street. No sumps were observed.

Mold/Water Damage

No mold or water damage was observed at the subject property during the site visit, since the subject property is a parking lot.

VICINITY RECONNAISSANCE

Land use immediately bordering the subject property includes:

- A parking lot and a commercial building at 80 Grand Avenue– (*across from 23rd Street and to the south*);
- A covered parking lot at 2353 Webster Street – (adjoining *to the north*);
- A parking lot, restaurant, and a car repair shop – (*across from Webster Street to the east); and*
- An apartment building and a café at 2300 Broadway (*to the west)*.

Figure 2 (Section 2.0) shows the land use in the immediate vicinity, which is predominantly commercial and residential.

5.0 REGULATORY AGENCY RECORD SEARCH

INTRODUCTION

This section discusses the findings of the environmental record search conducted for the subject property and vicinity. Findings are presented in the following order: Environmental Database Search Purpose and Methodology; and Site Vicinity Findings.

ENVIRONMENTAL DATABASE SEARCH PURPOSE AND METHODOLOGY

An environmental database computer search of available government and regulatory agency records was conducted. The purpose of the records survey is to identify and evaluate recognized environmental conditions related to historical and current hazardous materials usage, and records of reported releases and environmental contamination at both the subject property and vicinity properties.

Stellar Environmental made use of the commercial environmental database search company EDR to obtain the database information. The subject property address of 2305 Webster Street, Oakland, California was used as the central point of the record data search radius for the property. The regulatory agency records searched are compiled in categories based on laws (i.e., CERCLIS, NPL), or reporting regulations (i.e., CAL-SITES, UST), and these databases often overlap (i.e., LUST list, CORTESE list). Therefore, for purposes of identifying and evaluating RECs, it is more relevant to categorize the listed sites into the following general categories:

- Reported releases of hazardous materials and documented environmental contamination.
- Registered users of hazardous materials, including underground storage tanks (USTs), and generators of hazardous waste.
- Other potential sources of environmental contamination (e.g., landfills).

The full EDR report is included as Appendix D. In addition to reviewing the EDR computerized database report, Stellar Environmental contacted regulatory agencies that might have environmental records on the subject property and vicinity sites, including:

City of Oakland Building and Planning Departments - Stellar Environmental visited the city of Oakland Planning and Building Departments on April 12, 2016. Staff provided Stellar Environmental access to the microfiche records and zoning information. Building Department records indicated that a demolition building permit was filed in October 1980 to demolish the then existing one story brick building.

Planning Department records indicate the use of the subject property area as D-BV-2 zone (Broadway Valdez District). The plan calls for ground-level retail, restaurants, entertainment, and art activities with pedestrian-oriented, active storefront uses. Upper-story spaces are intended for a wide range of office and residential activities.

City of Oakland Fire Department - Records related to hazardous materials and wastes, including USTs and ASTs have been transferred to Alameda County Department of Environmental Health (ACDEH). Stellar contacted ACDEH regarding the subject property records. No records were available for the subject property at the ACDEH.

Regional Water Quality Control Board – San Francisco Bay Region (Water Board). Agency with ultimate authority for closure of contamination sites within the city of Oakland. Stellar Environmental reviewed the State Water Resources Control Board's online GeoTracker database of documented sites with environmental contamination for the subject property and listed vicinity sites. The subject Property address, 2305 Wesbster Street, was not listed as a former or present leak/release case on Geotracker.

Department of Toxic Substances Control (DTSC). Agency responsible for permitting transport and disposal of hazardous waste. The subject property address is not listed on the DTSC EnviroStor list. EnviroStor is a search tool for the Department of Toxic Substances Control that contains information on contaminated sites in California.

The commercially-available database record search provides a basis for identifying RECs at the subject property and vicinity sites that warrant a more focused analysis by reviewing local regulatory agency files. The primary criteria for evaluating what potential impact may occur to the subsurface environment of the subject property are the location of listed sites with respect to the subject property and groundwater flow direction, the type of contaminant, and the duration and spatial extent of the contamination. The main indicators of the potential of other sites to impact the subject property are: 1) the listed sites' location relative to the subject property and the direction of groundwater flow; and 2) the distance from the subject property. As discussed in Section 3.0 and below, the direction of shallow groundwater flow in the site vicinity is generally to the southeast. Therefore, for purposes of evaluating potential impacts to the subject property from adjacent properties, "upgradient" sites are generally located to the west northhwest; and "downgradient" sites are generally located to the east/southeast.

In accordance with the ASTM standard, the following standard environmental record sources were reviewed for sites within the ASTM-recommended minimum search distances. As allowed under the ASTM standard (based on our professional judgment), only the subject property and sites bordering or up gradient sites with releases were reviewed, as downgradient and crossgradient sites have no potential to adversely impact the subject property.

- ***Federal NPL, RCRA TSD, and State Superfund Reported Releases.*** The subject property and facilities bordering the subject property or within 1-mile in the upgradient direction, and not listed in the regulatory database as a "closed" or "no further action" site.
- ***Federal CERCLIS, State Landfills, and Non-Petroleum Contamination Sites.*** The subject property and facilities bordering the subject property or within ½ mile in the upgradient direction, and not listed in the regulatory database as "inactive," "closed," or "no further action" site.
- ***Petroleum UST Releases.*** The subject property and facilities bordering the subject property or within ¼ mile in the upgradient direction, and not listed in the regulatory database as a "closed," "no further action," or "soil only" site. The ASTM-recommended minimum search distance for leaking petroleum UST sites was reduced from ½ mile to ¼ mile based on our professional judgment that petroleum UST releases do not extend beyond ¼ mile from the source area.
- ***Hazardous Materials Users/Hazardous Waste Generators.*** The subject property and bordering properties of the following type: currently operational facilities; listed in the commercially-available database as large quantity users/generators; and/or that showed evidence of improper chemical storage practices in our vicinity reconnaissance.

SITE VICINITY FINDINGS

The following subsections discuss the findings of the regulatory database record search, including: Reported Releases of Hazardous Materials and Documented Environmental Contamination; Hazardous Materials Users and Hazardous Waste Generators; and Other Potential Sources.

Figures 4 and 5 are maps that highlight the data collected from the regulatory search. The subject property is depicted as a star located at the center of the radius search maps. Figure 4 shows the subject property and the listed regulatory sites within a 1-mile radius, while Figure 5 is a more detailed scale showing the listed sites within ¼ mile of the subject site. Note that the plotted symbols of the identified sites on the map are not always accurate, and "orphan" sites are not shown on the figures.

OVERVIEW MAP - 4588441.2S

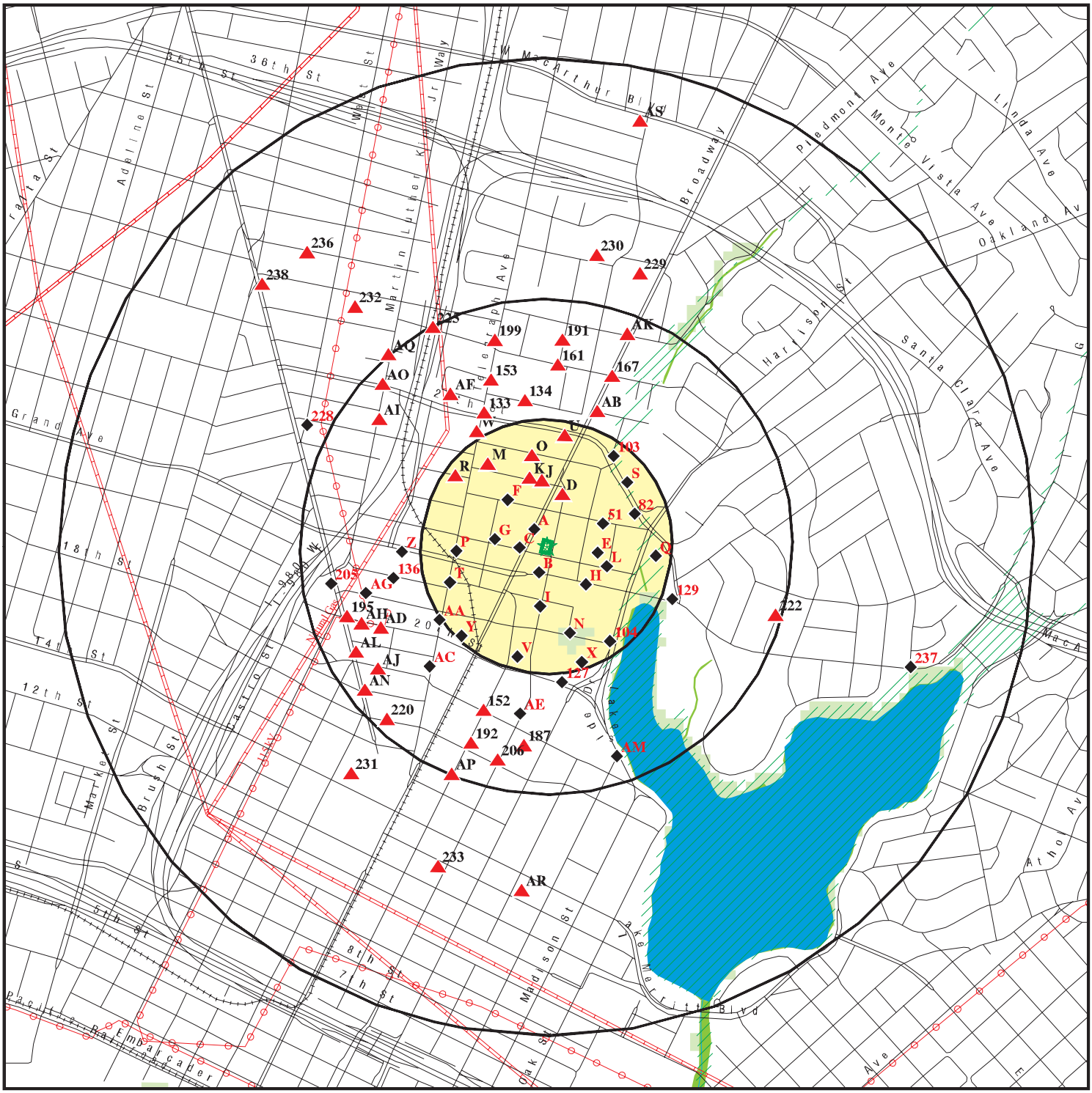


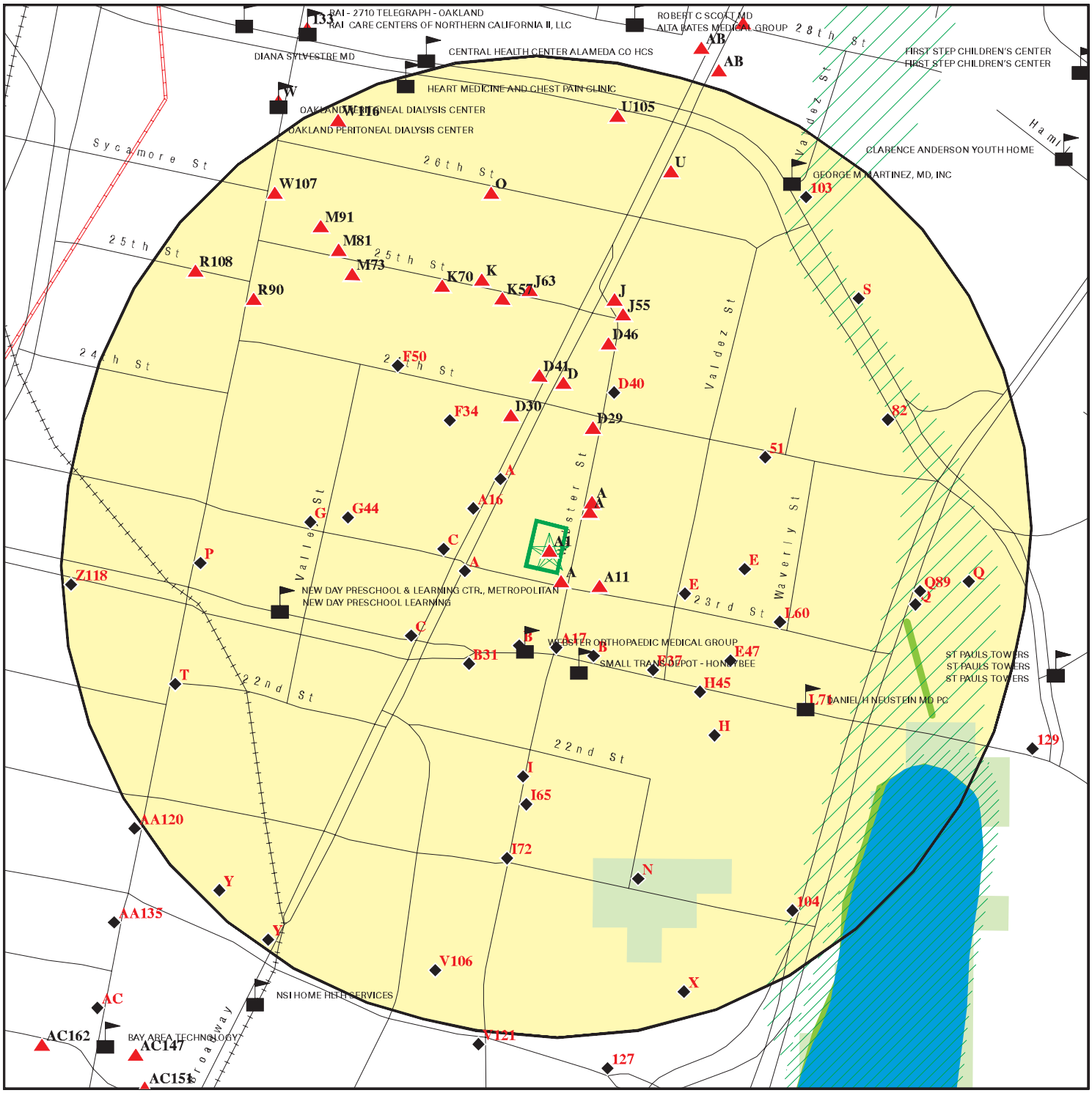
FIGURE 4: Map of Regulatory Agency-Listed Sites within 1-Mile Radius

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: 2305 Webster Street	CLIENT: Stellar Enviro Solutions
ADDRESS: 2305 Webster Street Oakland CA 94612	CONTACT: Sami Maleab
LAT/LONG: 37.812242 / 122.265422	INQUIRY #: 4588441.2s DATE: April 11, 2016 2:13 pm

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DETAIL MAP - 4588441.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

Pipelines

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

FIGURE 5: Map of Regulatory Agency-Listed Sites within 1/4-Mile Radius

SITE NAME: 2305 Webster Street	CLIENT: Stellar Enviro Solutions
ADDRESS: 2305 Webster Street Oakland CA 94612	CONTACT: Sami Maleab
LAT/LONG: 37.812242 / 122.265422	INQUIRY #: 4588441.2s DATE: April 11, 2016 2:18 pm

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Reported Releases of Hazardous Materials and Documented Environmental Contamination

The EDR database report contained multiple listings of reported releases of hazardous materials or documented environmental contamination within a 1-mile radius of the subject property.

Subject Property

No release or leak was reported from the subject property. No USTs or ASTs were reported at the subject property. However, the subject property was listed as a car repair shop. The EDR report listed the subject property as a historical auto station.

Vicinity Properties

Negherbon Auto Center, 2345 Broadway **–**This site is located down-gradient to cross gradient and within 500 feet from the subject property, bounded by Broadway, 23rd, 24th & Valley Streets. It Includes 2301-2345 Broadway; 421-455 24th St.; 444 23rd St.; and 2320-2354 Valley Street. The site includes 5 parcels (APN 8-739-2, 8-739-4, 8-739-5, 8-739-7) that have historically been used as commercial facilities including auto dealerships/repair facilities. Associated potential chemical uses, storage, and handling included bulk waste oil in an above ground tanks, hydraulic oil related to lifts, and use of various types of cleaners and lubricants. The site is being redeveloped by Signature Redevelopment Group and include commercial and residential land uses.

Phase I and II Environmental Site Assessments have been conducted on different parcels within the redevelopment site since 2001. Soil and groundwater impacts have been identified on four of the five parcels located within the boundaries of the redevelopment project. Chlorinated and non-chlorinated volatile organic compounds (VOCs) and petroleum hydrocarbons as gasoline, diesel and motor oil have been detected in groundwater. Data indicates that a 1,1-dichloroethane plume exists under the majority of the site. Lead has been detected in shallow soil and at depths up to 13 feet below ground surface.

Parcel 8-739-7 is listed as a closed underground storage tank (UST) site (ACEH Fuel Leak Case No. RO0001190 and Geotracker Global ID T06001000957). However, for the remainder of the site, the case is still open and additional investigation is still required to characterize the site including determination of groundwater flow direction, vertical and lateral delineation of contaminants of concern in soil and groundwater, plume stability, and identification of sources of petroleum hydrocarbons and chlorinated VOCs. Electronic submittal of data and documents requested for completeness of database.

According to the latest reported Phase II subsurface investigation at the 2301-2345 Broadway site (Erler & Kalinowski, Inc., 2012), concentrations in groundwater from borings TR-102, TR102GW, and TR202, closest to the subject property, did not detect any of the following investigated compounds: Total Petroleum Hydrocarbons as Gasoline (TPH-G); Trichloroethylene (TCE); 1-1, Dichloroethane (1-1, DCA); and Methyl-tert-butyl ether (MTBE). Therefore, the groundwater plume at this neighboring site, at 2301-2345 Broadway, does not seem to expand and impact the subject property.

Oakland Tribune, 2302-2342 Valdez Street – This LUST site is located down-gradient to cross gradient from the subject property and within 500 feet. We do not expect this site to impact the subject property.

Chrysler Dealership, 2417 Broadway – This LUST site is located up-gradient to cross-gradient from the subject property and within 600 feet. From reviewing the Subsurface Investigation Report and Request for Case Closure at 2401 Broadway in Oakland (PES, 2015), it was evident that the groundwater plume at this neighboring site did not extend to the subject property and did not impact its groundwater.

No other listed leaks or releases are likely to impact the subject property.

Hazardous Material Users and Hazardous Waste Generators

There are several listings for sites with registered USTs, users of hazardous materials, or generators of hazardous waste within the area of investigation. Inclusion on these lists does not mean that environmental contamination has occurred at the sites; rather, it indicates that the site operations include use or production of regulated chemicals or waste.

Subject Property

Due to the past use of the subject property as a car repair shop, the EDR report listed the subject property as a historical auto station. In 1933, 1943, and 1967, the subject property was listed in the EDR City Directory as an automobile repair business. Also, the address 2301 Webster Street appeared to be a part of the subject property and was also listed historically as a car repair shop.

Adjacent Properties

No listed properties handling hazardous materials or waste are located adjacent and capable of impacting the subject property.

Vicinity Properties

No listed properties handling hazardous materials or waste are located in the vicinity are judged capable of impacting the subject property.

Other Potential Sources

There were several individual listings for "orphan" sites, which are not included in the site listings discussed above. Stellar Environmental was able to determine the location of these unmapped sites relative to the aforementioned criteria for potentially impacting the subject property. None of these meet the specified criteria for conducting additional regulatory review.

No other potential sources of environmental contamination were listed in the regulatory databases.

6.0 SUMMARY, CONCLUSIONS AND OPINION

SUMMARY AND CONCLUSIONS

Segula Investments, Inc. retained Stellar Environmental Solutions (Stellar Environmental) to conduct a Phase I Environmental Site Assessment (Phase I ESA) for the real property located at 2305 Webster Street, Alameda County, Oakland, California (the subject property). This ESA was prepared in accordance with ASTM Designation E1527-013 for conducting Phase I ESAs.

The subject property is an open air parking lot, paved with asphalt, used for public parking. The lot size is approximately 11,745 square feet. A car repair shop and a small corner restaurant once used to occupy the subject property. A detailed description of the subject property is included in Section 2.0. The subject property was residential in the early 1900's, as a car repair shop and body shop from 1933 to 1980, and as a parking lot from the early 1980's to the present time (April 2016).

The site vicinity is a mix of residential, commercial properties, and parking lots. Adjoining properties include a covered parking garage to the north; an open parking lot and an office building across from 23rd Street to the south; a restaurant, commercial parking lot, and a car repair shop across from Webster Street and to the east; and an apartment building and a café, adjacent and to the west of the subject property.

No hazardous materials or wastes were observed on the subject property during the site visit.

Fuel leaks and releases were reported at several sites within a quarter-mile radius from the subject property. These addresses include: Negherbon Auto Center, 2345 Broadway, Oakland Tribune, 2302-2342 Valdez Street, and Chrysler Dealership, 2417 Broadway. None of these fuel release/leak sites appear to have impacted the subject property due to the limited extent of contamination, or location with respect to the subject property (down-gradient location). However, known groundwater degradation and impact by petroleum hydrocarbons and volatile organics are known to exist in the vicinity of the subject property due to a long history of urban development and usage of underground storage tanks (USTs).

- This phase I ESA has revealed no Recognized Environmental Condition (REC) in association with the subject property.
- Although there are no historic or current RECs identified for the subject property, based on the history of up to 50 years of auto repair that ocurred on site, the possibility exits that legacy USTs may exist beneath the site as well as possible soil and groundwater impacts that can ocurr with auto repair activity. The potential additional costs associated with mitigating these potential impacts should be considered as potential additional business risk.
- We declare that, to the best of our professional knowledge and belief, we meet the definition of an Environmental Professional as defined by 40 CFR 312.10 of 40 CFR 312. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

OPINION AND RECOMMENDATIONS

In the professional opinion of Stellar Environmental Solutions, an appropriate level of inquiry into the previous ownership and uses of the subject property consistent with good commercial and customary practice in an effort to minimize liability has been completed. There are no exceptions to, or deletions from, this practice described in this report.

This phase I ESA has revealed no Recognized Environmental Condition (REC) in associated with the subject property. However, due to use of the subject property in the past as car repair shop, Stellar Environmental recommends the following:

- Prior to subject property redevelopment, Stellar Environmental recommends devising and implementing a site mitigation plan (SMP), which would guide proper soil excavation work and disposal practices. Should groundwater need to be pumped during excavation activities, we recommend groundwater sampling and profiling as well as obtaining the required permits for discharge to the local POTW or for shipment offsite.

7.0 LIMITATIONS

This report has been prepared for the use of Segula Investments, Inc., and their authorized representatives. This assessment did not include a title search, nor was any asbestos or lead-based paint sampling conducted.

The findings and conclusions presented in this report are based on a review of site-specific documents provided by the client and his agent; an historical aerial photographic search; a site inspection and tenant interview; a search of regulatory-listed databases; and review of regulatory files and previous site investigation reports. This report provides neither a certification nor guarantee that the site is free of hazardous substance contamination. This report has been prepared in accordance with generally accepted methodologies and standards of practice of the area. The personnel performing this assessment are qualified to perform such investigations and have accurately reported the information available, but cannot attest to the validity of that information. No warranty, expressed or implied, is made as to the findings, conclusions and recommendations included in the report.

The findings of this report are valid as of the date of this report. Subject site conditions may change with the passage of time, natural processes or human intervention, which can invalidate the findings and conclusions presented in this report. As such, this report should not be considered current after a period of 3 months, the date after which the regulatory records are likely to be updated by the regulatory agencies.

8.0 REFERENCES

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